



**Identification of the Long-term S&T Priorities
with the Use of “Wild Cards” Method:
Experience of “iKnow” EU Project**

www.iknowfutures.eu

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Manchester Institute of Innovation Research
The University of Manchester



is a real
research + technology development
project

iKnow in a snapshot

1. [iKNOW Project](#) – A foresight and horizon scanning initiative aimed to build **early warning and early action systems**.
2. [iKNOW WIWE Bank](#) – A tool to **map** (nominate, describe, examine and interconnect) wild cards and weak signals.
3. [iKNOW WIWE Scan](#) – A practical and user-friendly tool to **scan** (search and find) relevant wild cards and weak signals.
4. [iKNOW Community](#) – A space for **people** involved in foresight and horizon scanning research and policymaking.
5. [iKNOW Library](#) – A public space to interconnect **codified knowledge** foresight, horizon scanning and STI information.
6. [iKNOW Delphi 2.0](#) – A novel tool to **assess** interesting wild cards and weak signals and build **interdisciplinary research** agendas.
7. **iKNOW FutureNews** – A space to read explore and enjoy featured **highlights and key findings** of the iKNOW project
8. **iKNOW Oracle** – A tool for researchers and policymakers to build interdisciplinary research agendas

About iKNOW

Aim

- To elucidate and examine events and developments potentially shaping or shaking the future of science, technology and innovation in the Europe and the world

Objectives

- To **develop and pilot conceptual and methodological frameworks**
 - to identify, classify, cluster & analyse **wild cards & weak signals (WI-WE)**
- To **assess** selected WI-WE's
 - **implications for, and expected impact on**
 - **science, technology and innovation (STI)**
 - **relevance for key dimensions of European research & technology development:**
 - **Researchers mobility**
 - **Research infrastructures**
 - **Research institutions**
 - **Knowledge sharing**
 - **Joint Programming (research programmes and priorities)**
 - **International S&T cooperation**

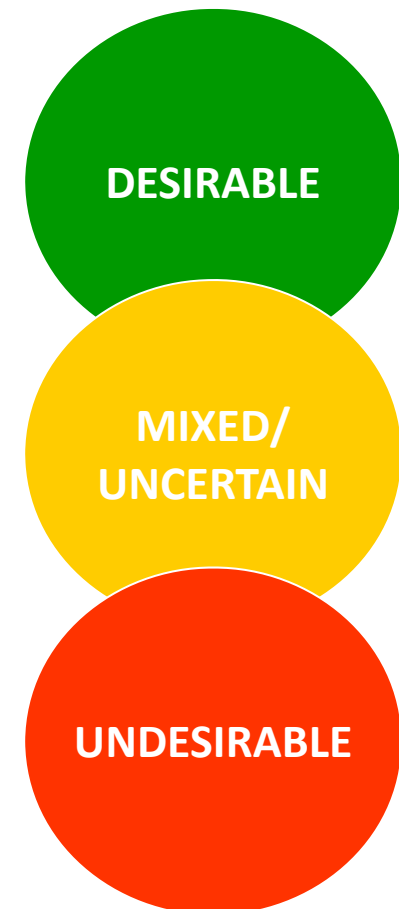
(WI) Wild Cards

- situations/events with perceived **low probability** of occurrence but potentially **high impact** if they were to occur.

(WE) Weak Signals

- **unclear observables warning us** about the probability of future events (including Wild Cards). They implore us to consider alternative interpretations of an issue's evolution to gauge its potential impact.

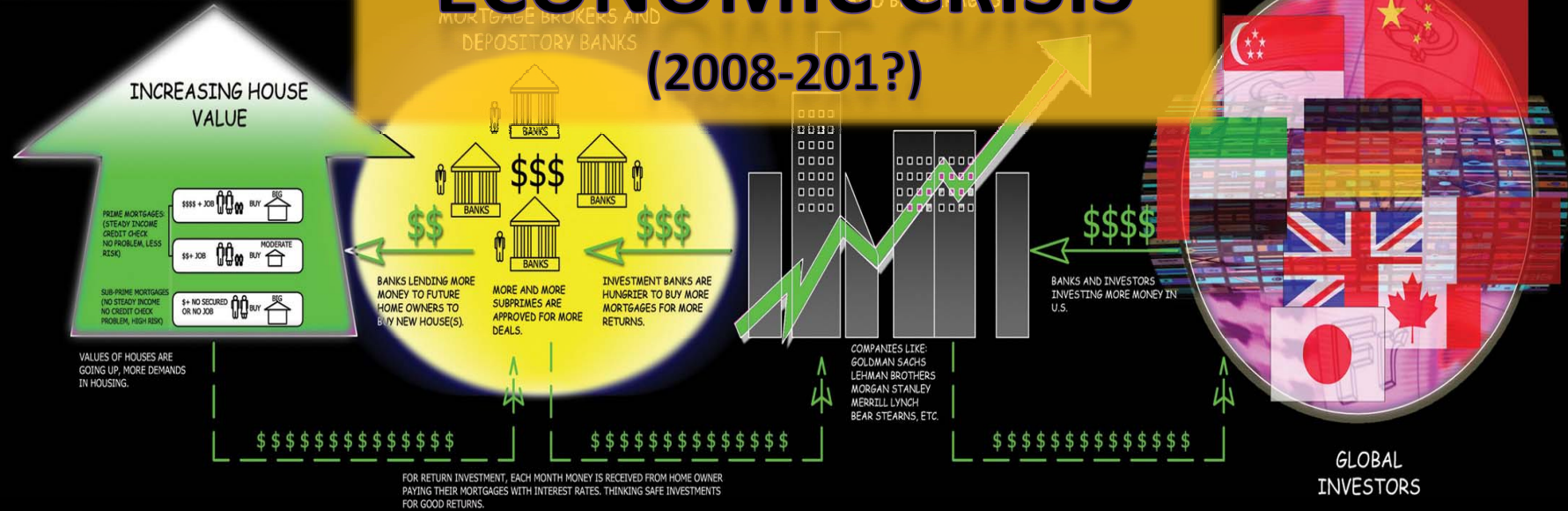
WI-WE can be...



IN THE BEGINNING...

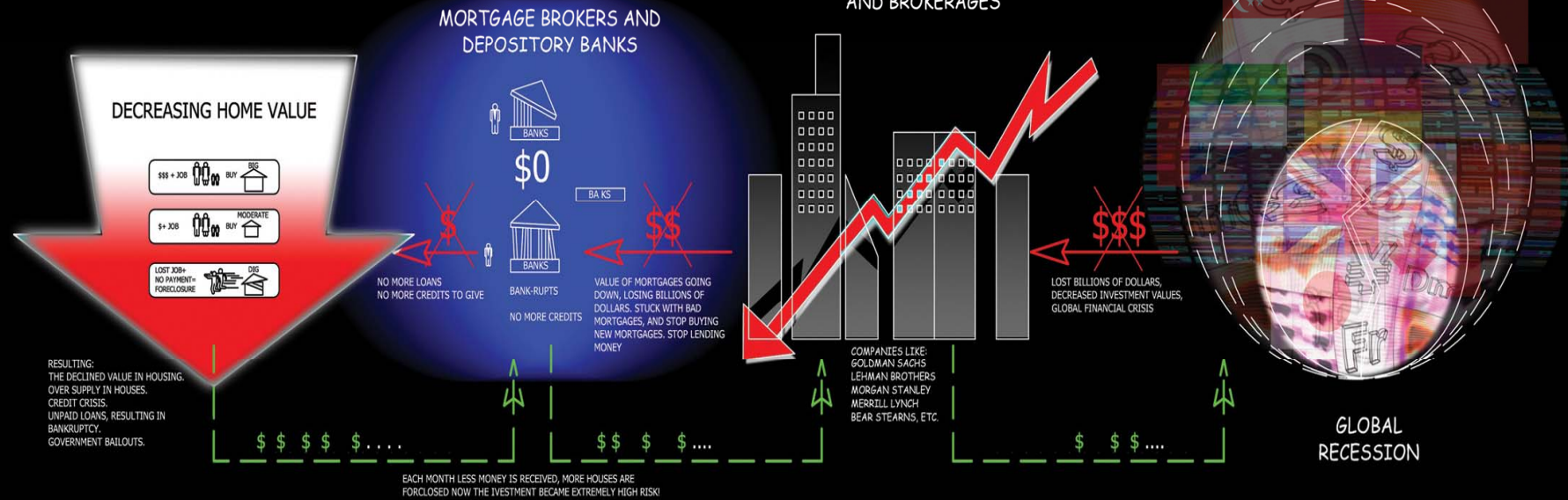
AFTER DOT-COM BUBBLE BURST (2001), INVESTMENT BANKS ARE LOOKING FOR A NEW WAY TO INVEST THEIR MONEY. USING HIGH-TECH FORMULATION CREATED BY "SMART PEOPLE," IT FIGURED THAT INVESTING IN MORTGAGES WILL GIVE A HIGH RETURN WITH MINIMAL RISK. UNFORTUNATELY THE FORMULATION FAILED TO RECOGNIZE THE DANGER OF SUB-PRIME MORTGAGES.

ECONOMIC CRISIS (2008-201?)



THEN...

IN 2008, UNPAID MORTGAGES FROM SUB-PRIME EMERGES IN STAGGERING NUMBERS TRIGGERED BANKS TO COLLAPSE. CREDIT CRISIS, MANY BANKRUPTCIES, LAID-OFF WORKER, AND WORLD RECESSIONS ...



WIKILEAKS

(2010)



TVP 2

POLISH CRASH

(2010)

TVP INFO
11:46
SMOLEŃSK



KATASTROFA
W SAMOLECIU

PREZYDENT ZGINĄŁ W KATASTROFIE SAMOLOTU
na żywo mówi były premier Tadeusz Mazowiecki

PALĘ SIĘ >>>

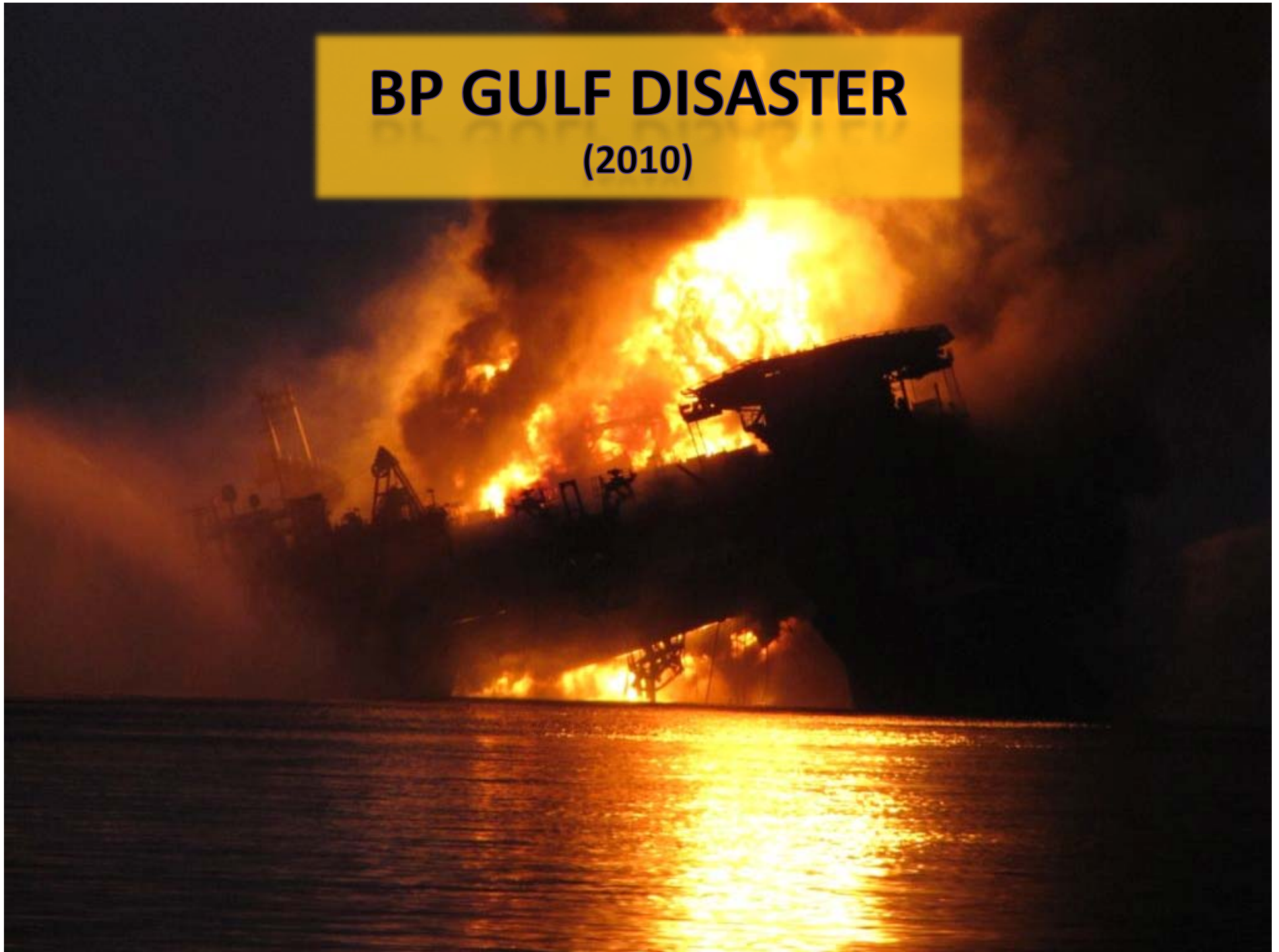
TVP INFO: PREMIER ROSJI WŁADIMIR PUTIN RO

AFP

live-magnum

BP GULF DISASTER

(2010)



千代田 MBS
NNN WORLD
NNN WORLD

千葉

FUKUSHIMA

(2011)



JAPAN

20:33
MOSCOW



REPORTS RADIATION LEAK RISK RISING
AS PRESSURE BUILDS IN NUCLEAR PLANT

BREAKING
NEWS

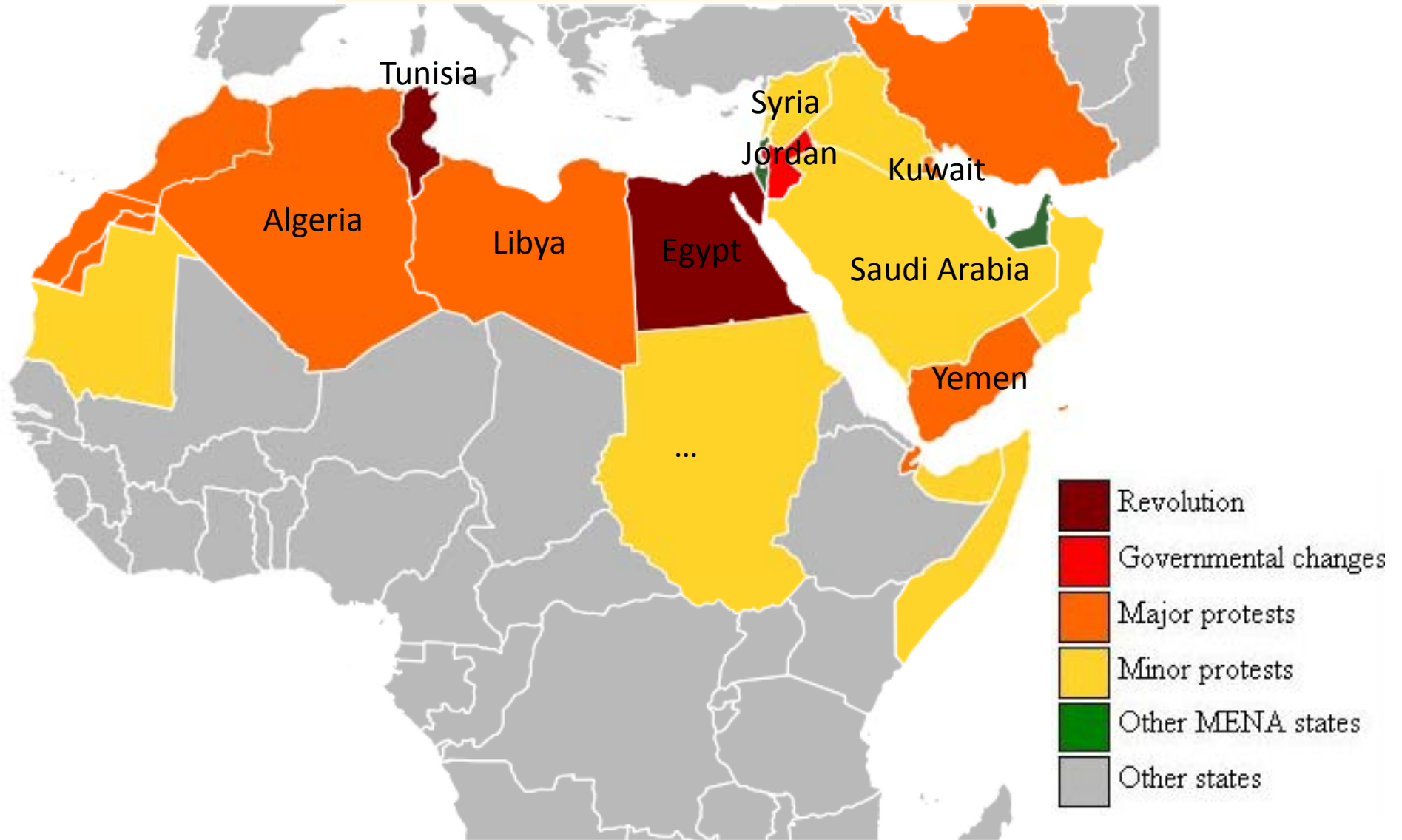
DANGER OF RADIOACTIVE LEAK RISING.

TEN METERS

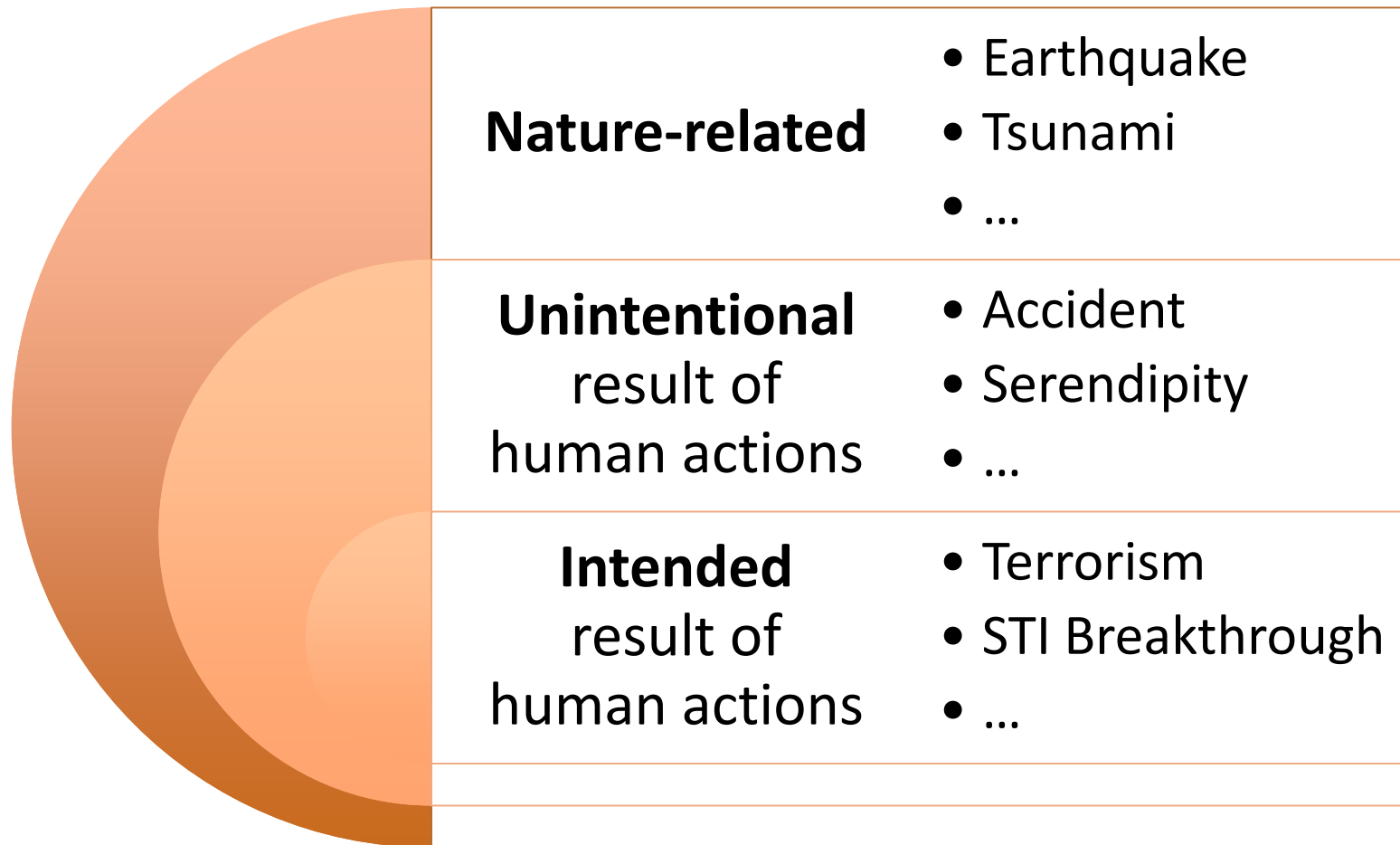
...and the risk of a major release of radioactive material is rising. The plant is generating...

MIDDLE EAST

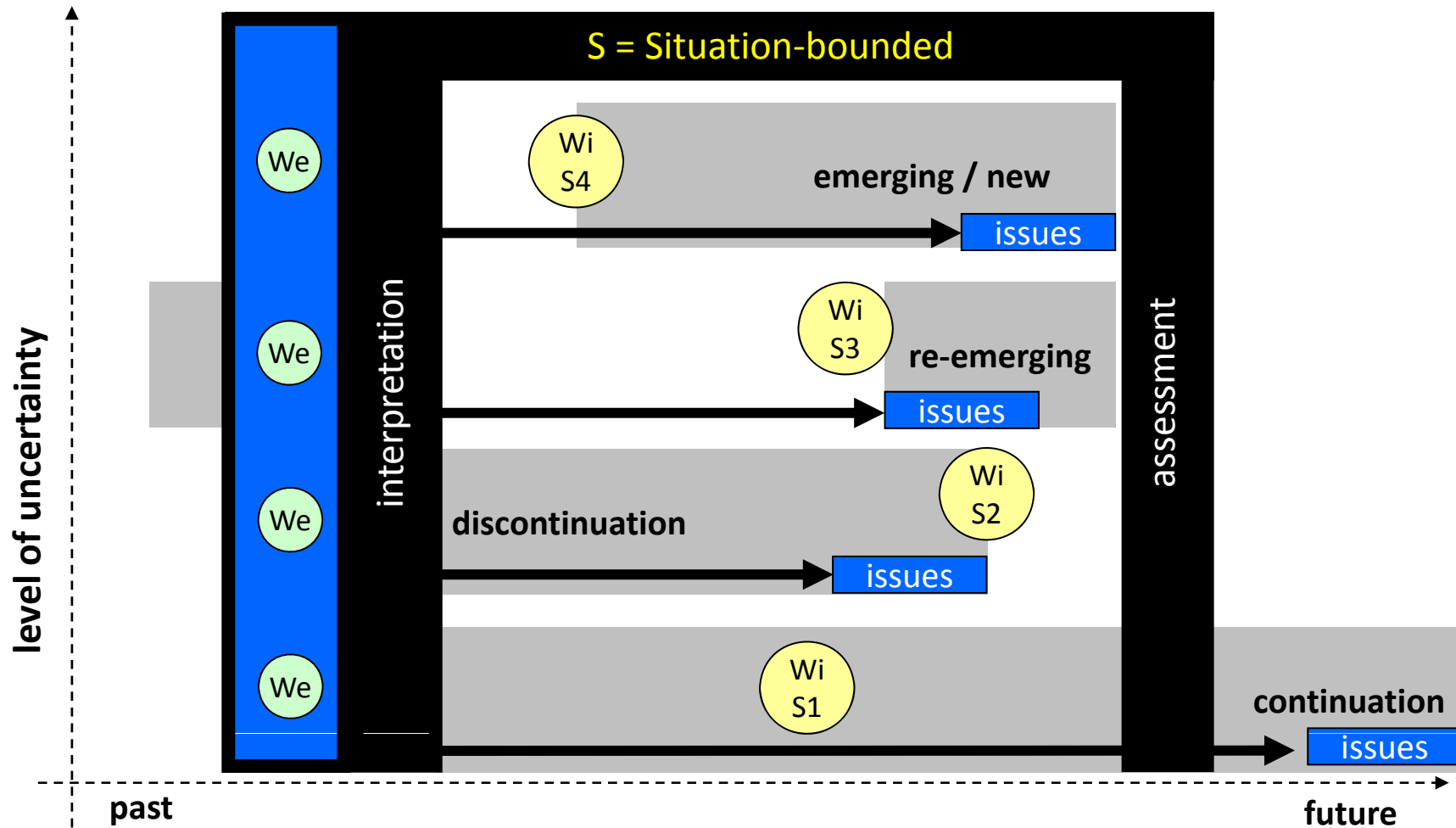
(2010-2011)



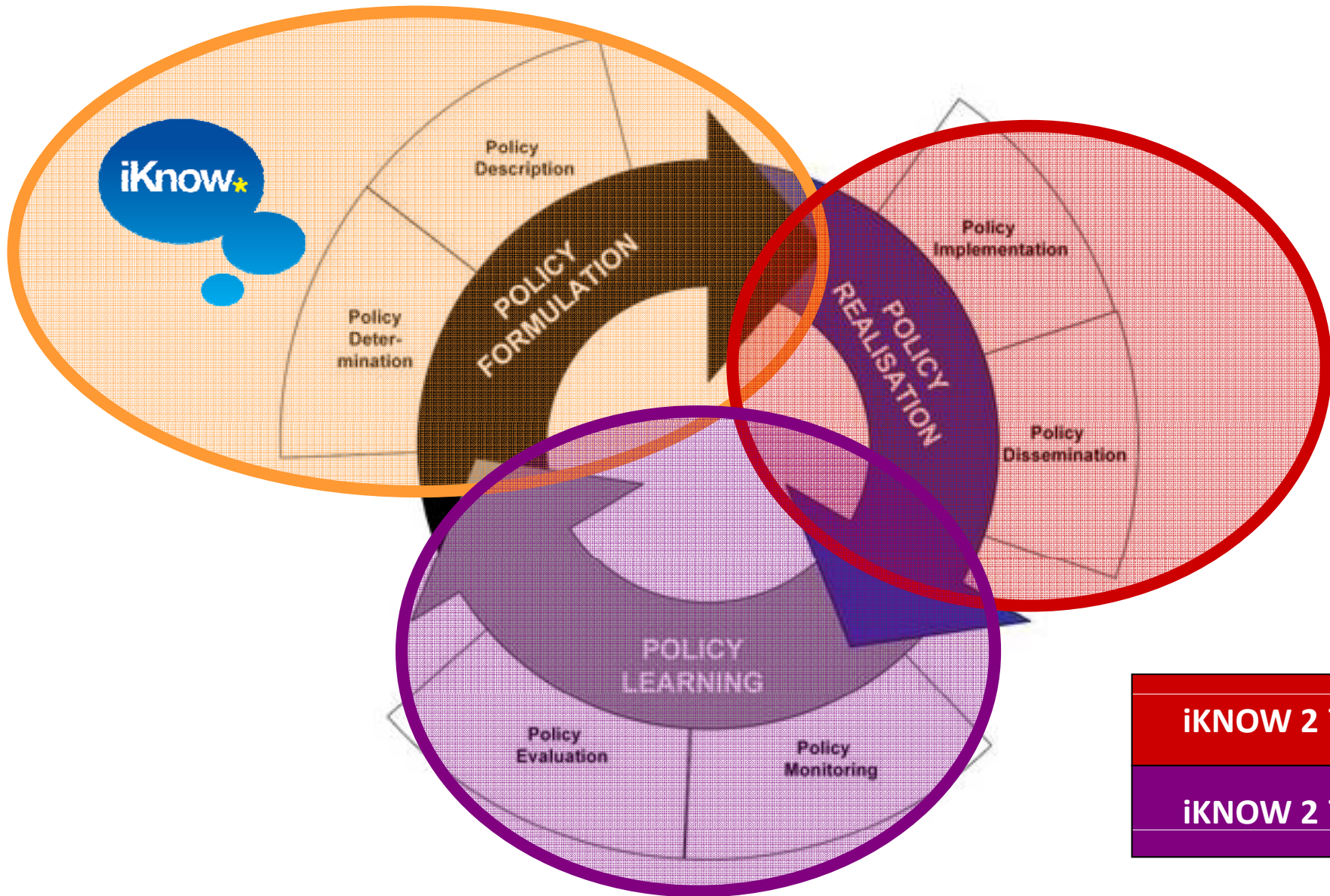
Main types of Wild Cards



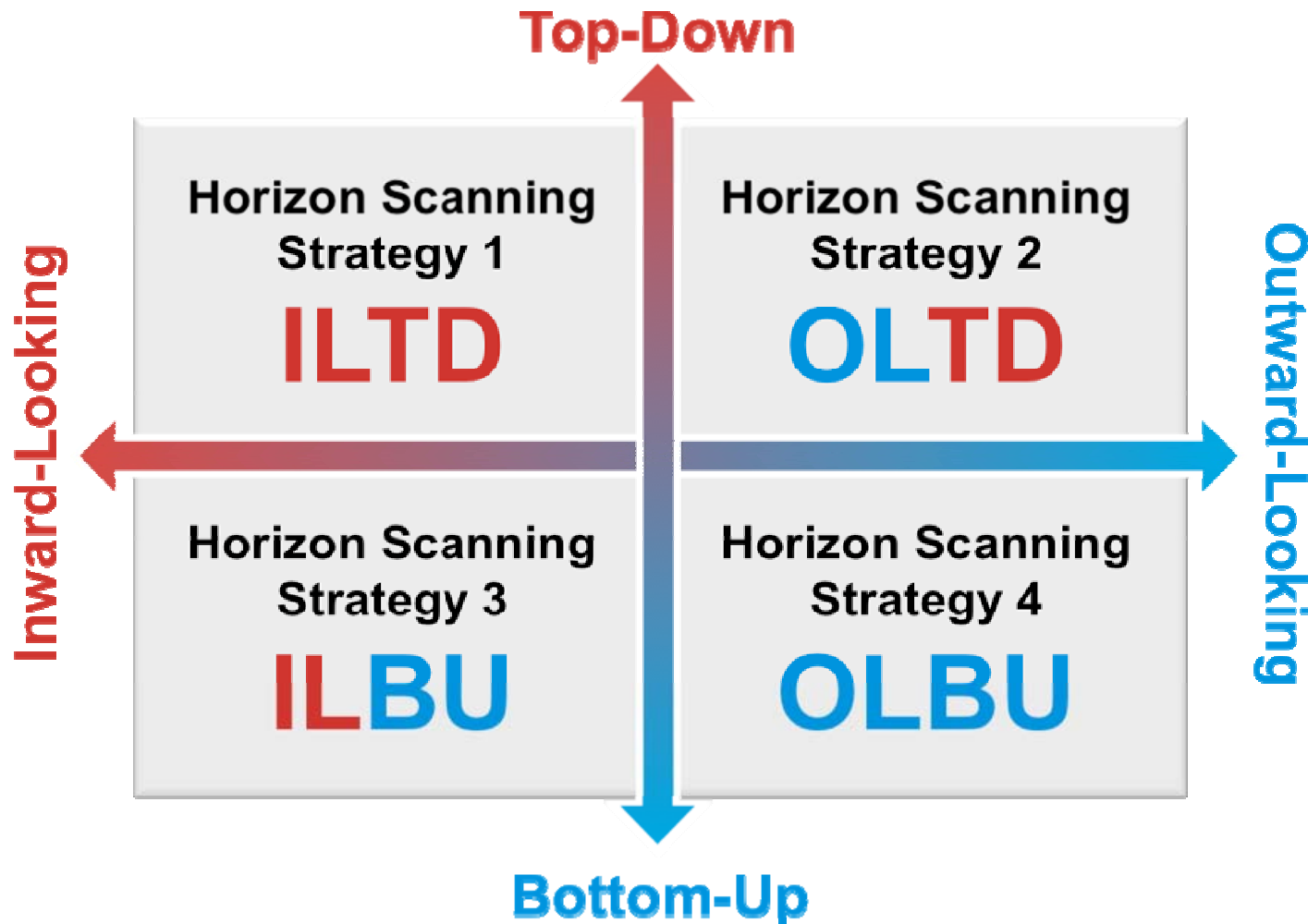
iKnow Framework



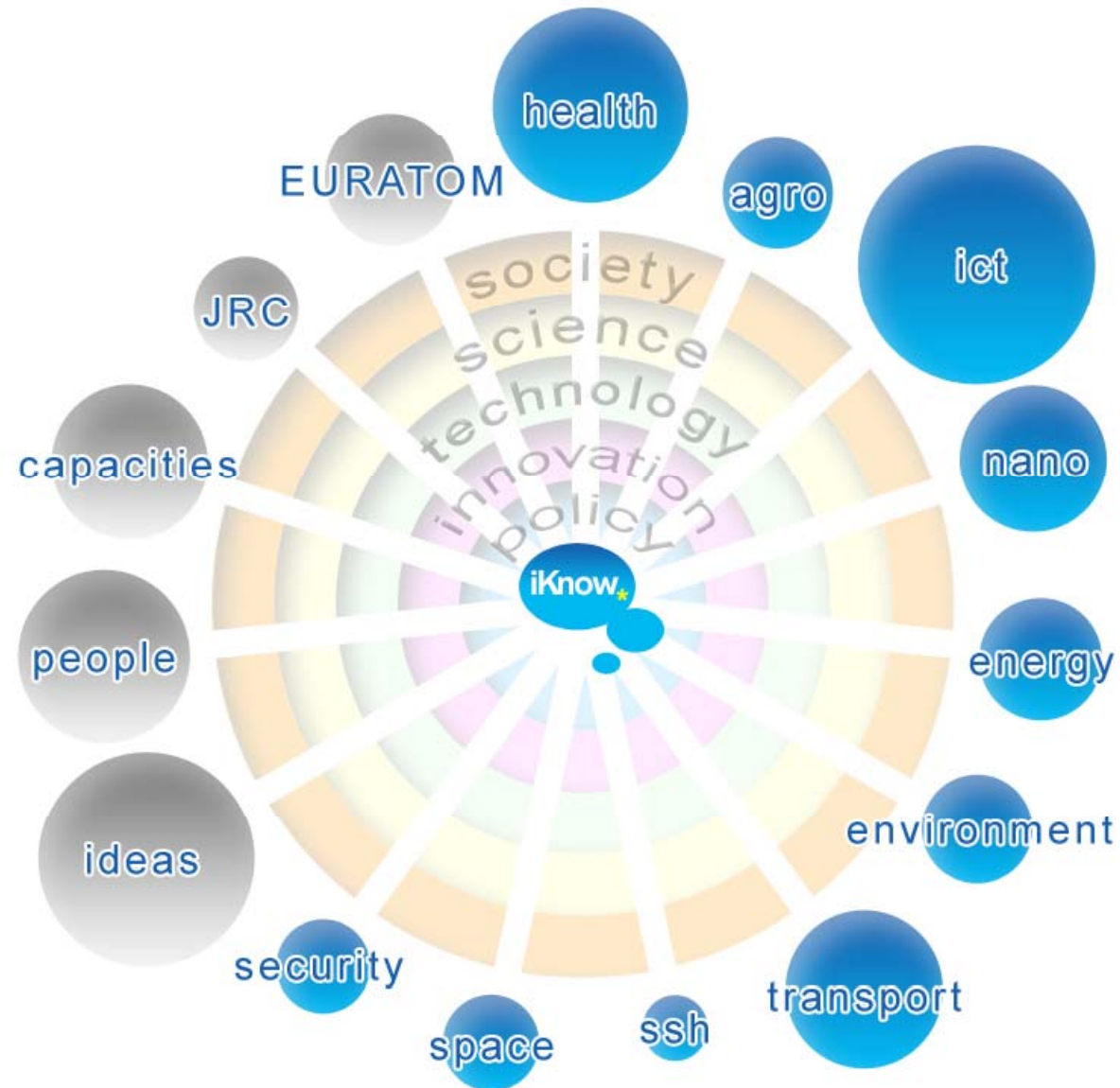
iKNOW links to the Policy Cycle in 2008-2011



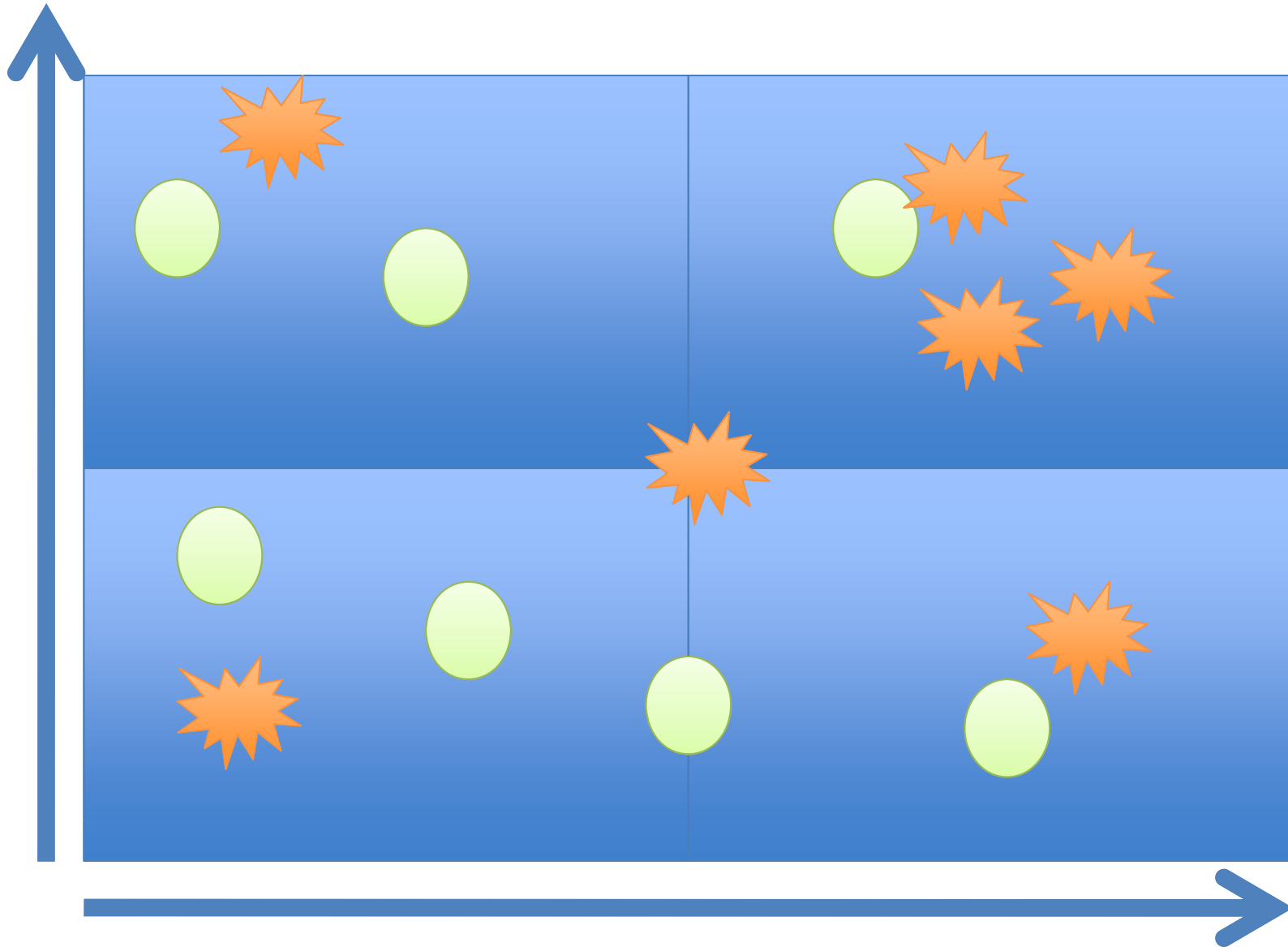
iKnow Scanning Strategies



Strategies 1 & 2



Priority Level vs. STI Impact



Wild Cards
that require
Policy Attention (!)
in the
SHORT-TERM

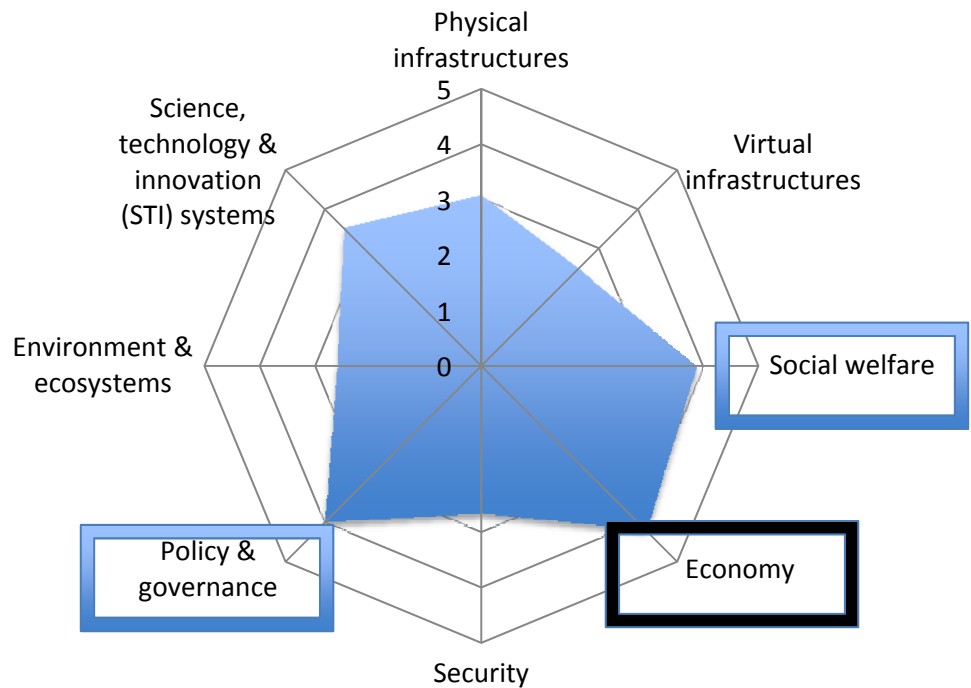
Soft “EuroLanding” or “Happy End” in EuroLand



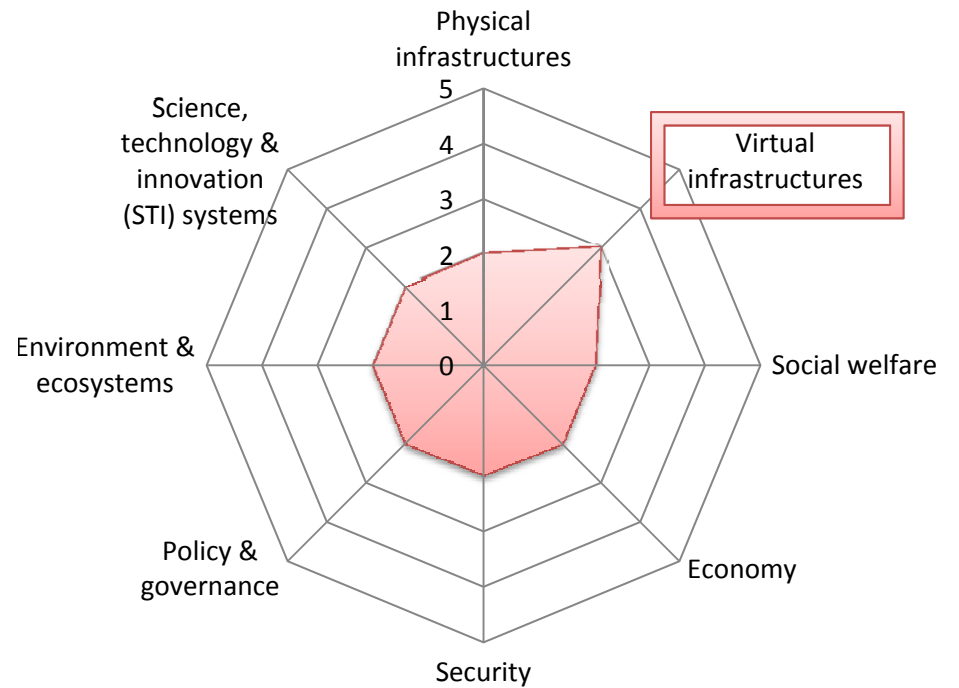
The growth of debts, austerity packages and spending cuts in Europe lead to critical economic instability and the abrupt transformation of the Euro Zone. **A few countries leave the Euro at huge political price while others enjoy the new "Euro Deal".**

IMPACTS OF Soft "EuroLanding"

Soft "EuroLanding" or "Happy End" in EuroLand
(in Europe)



Soft "EuroLanding" or "Happy End" in EuroLand
(in Russia)



1 => no/low impact

5 => critical impact

Cyber Crusade: Massive e-sabotage by "hacktivists"

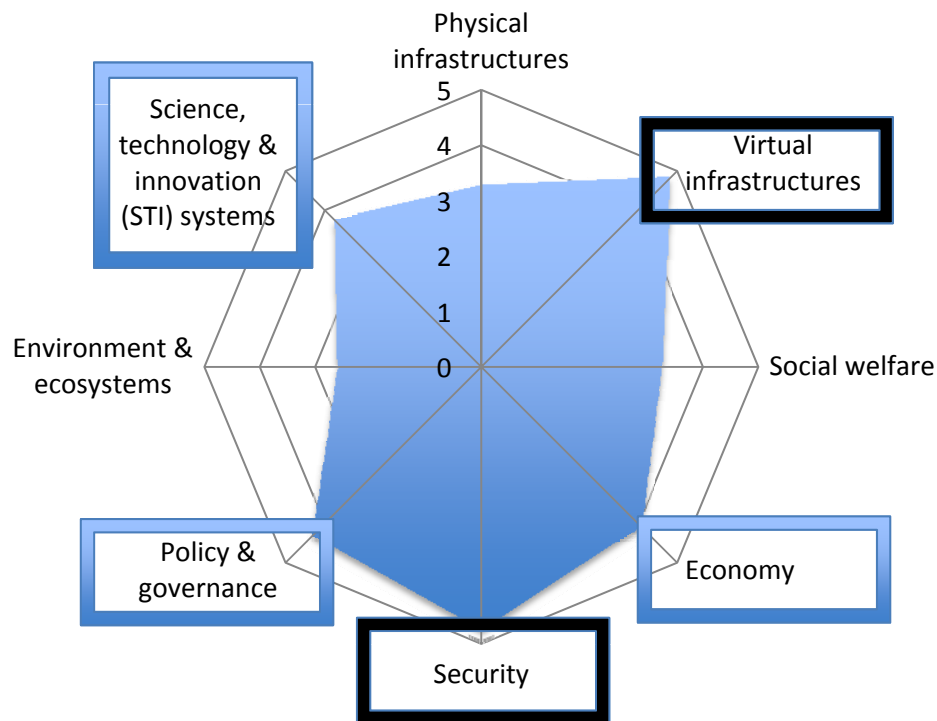


With the **aim to achieve social/economic justice in Europe** (instead of fraud or geopolitical rivalry), underemployed and politically driven “hacktivists” target EU agencies, governments and businesses, with cyberattacks and other electronic sabotage.

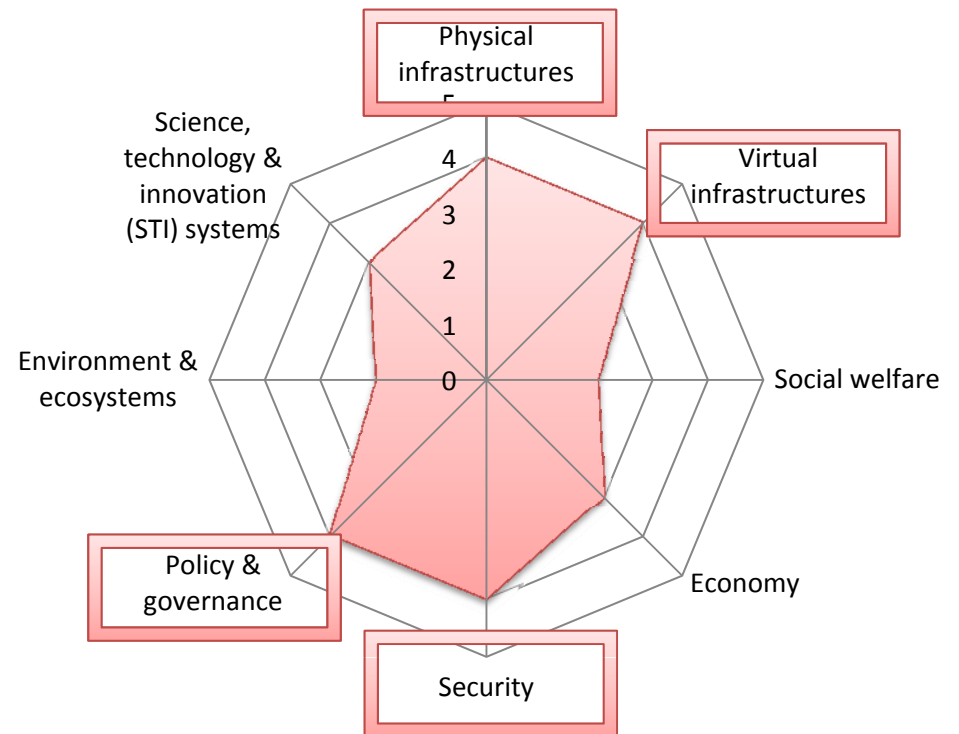
IMPACTS OF

Massive e-sabotage by "hacktivists"

Cyber Crusade: Massive e-sabotage by "hacktivists"
(in Europe)



Cyber Crusade: Massive e-sabotage by "hacktivists"
(in Russia)



1 => no/low impact

5 => critical impact

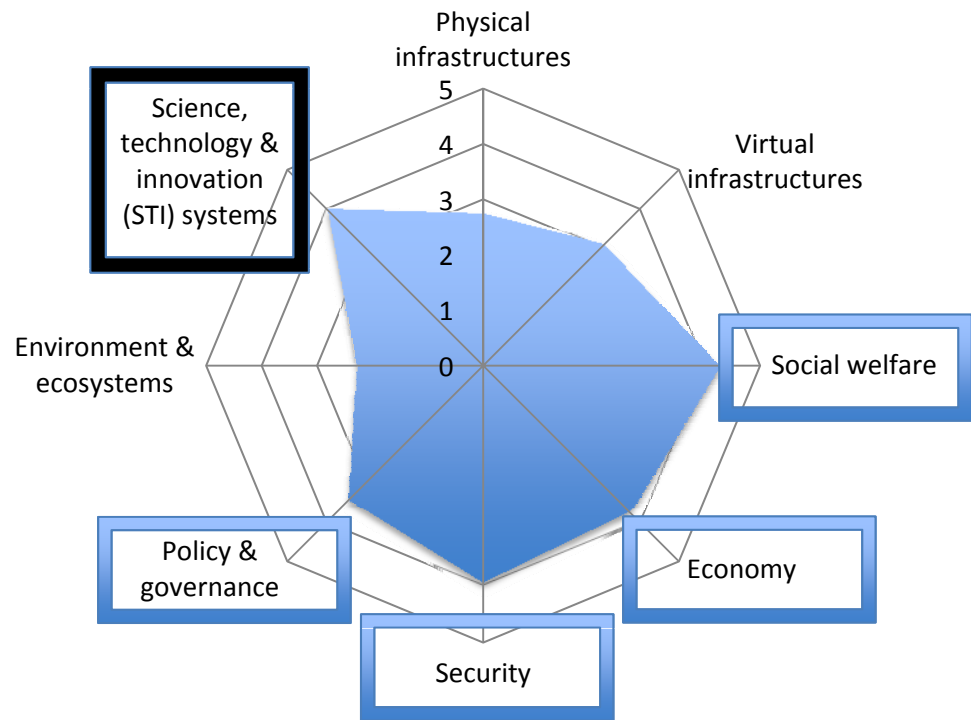
Nano-Lab inside your body



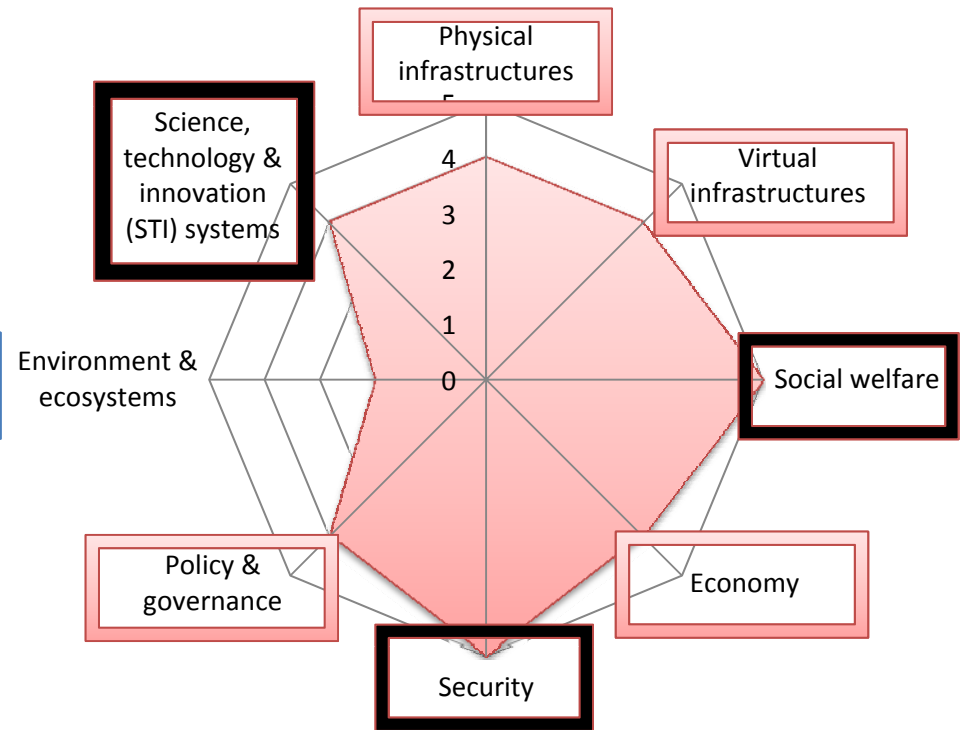
“Nano-Chip” is inserted in the body at birth which will **monitor** the body, **prevent** diseases and **heal** the body if necessary.

IMPACTS OF Nano-lab inside your body

Nano-lab inside your body
(in Europe)



Nano-lab inside your body
(in Russia)



1 => no/low impact

5 => critical impact

Wild Cards
that require
Policy Attention (!)
in the
LONG-TERM

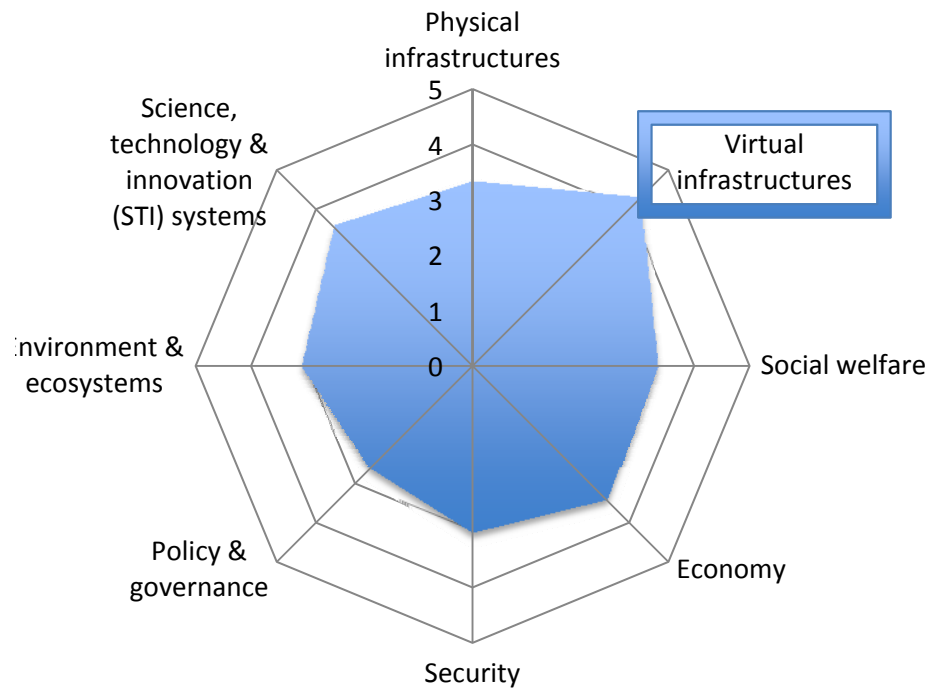
3D media trustworthily copying reality



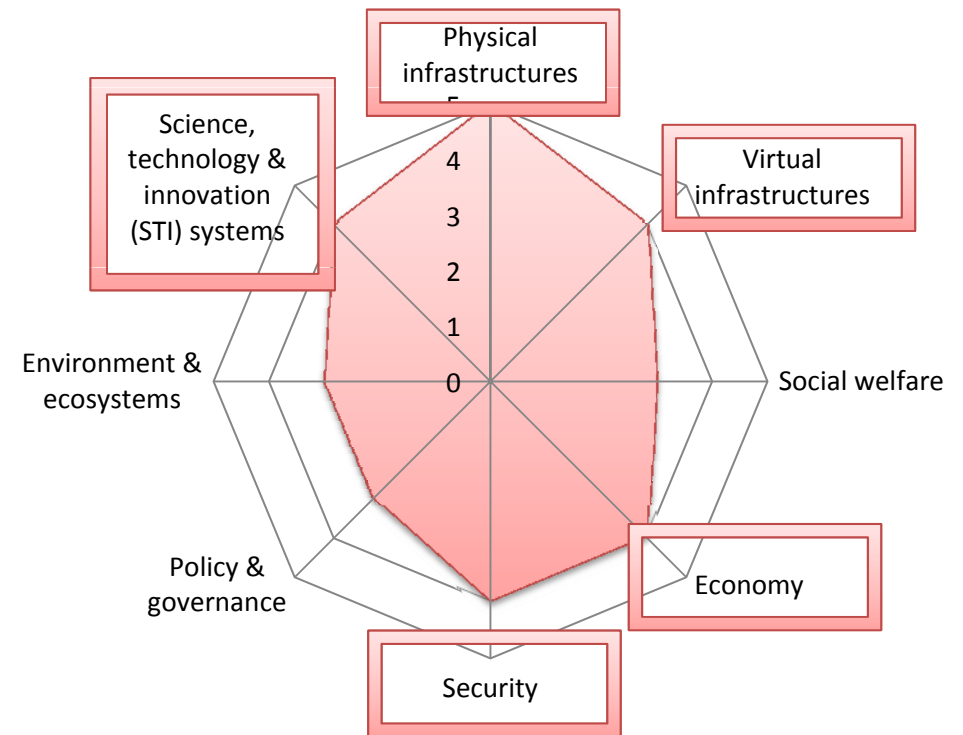
Practically anything – from personal appointment to new clothing trial – will be trustworthily done in 3D virtual space.

IMPACTS OF 3D media trustworthily copying reality

3D media trustworthily copying reality
(in Europe)



3D media trustworthily copying reality
(in Russia)



1 => no/low impact

5 => critical impact

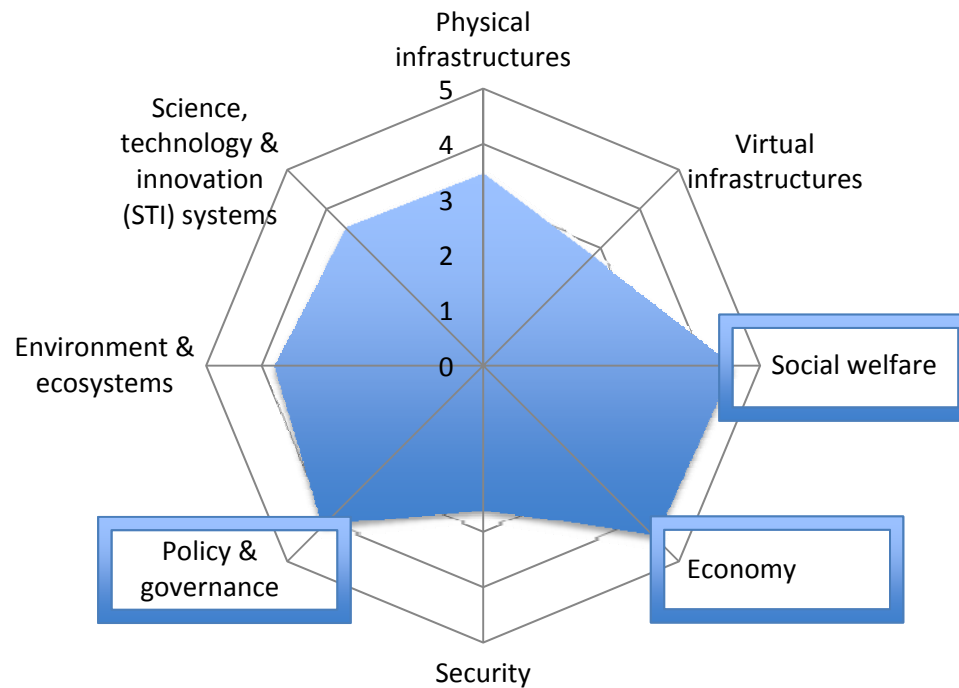
End of Ageing



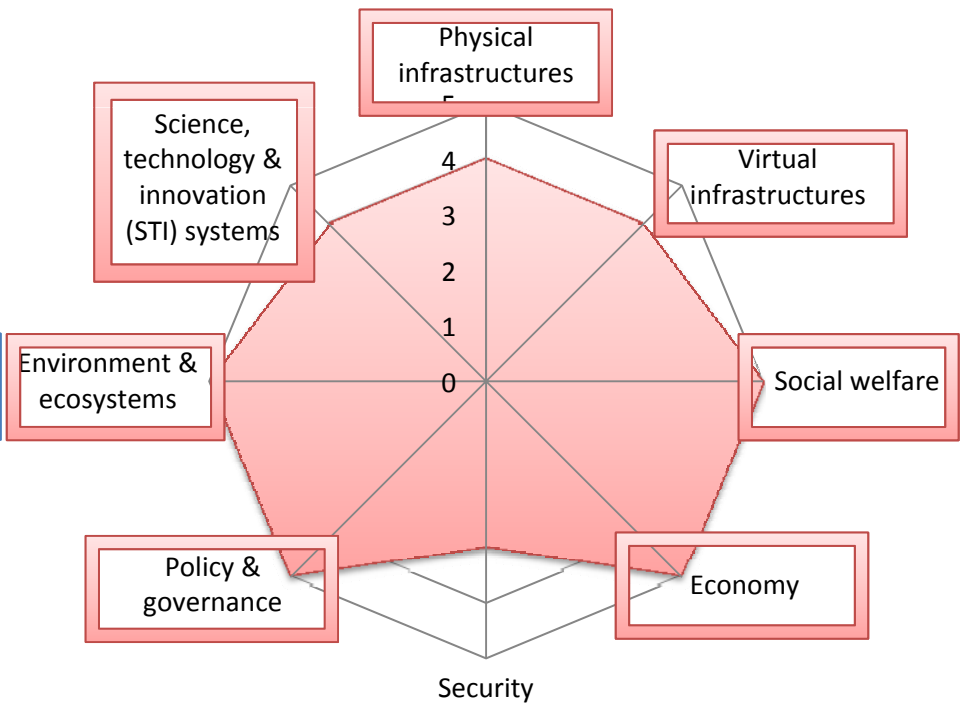
Revolutionary findings mainly in **biotechnology** not only understand, but also **impede mental and physical ageing**. The impacts on human society are immense, individually and structurally.

IMPACTS OF End of Ageing

End of Ageing
(in Europe)



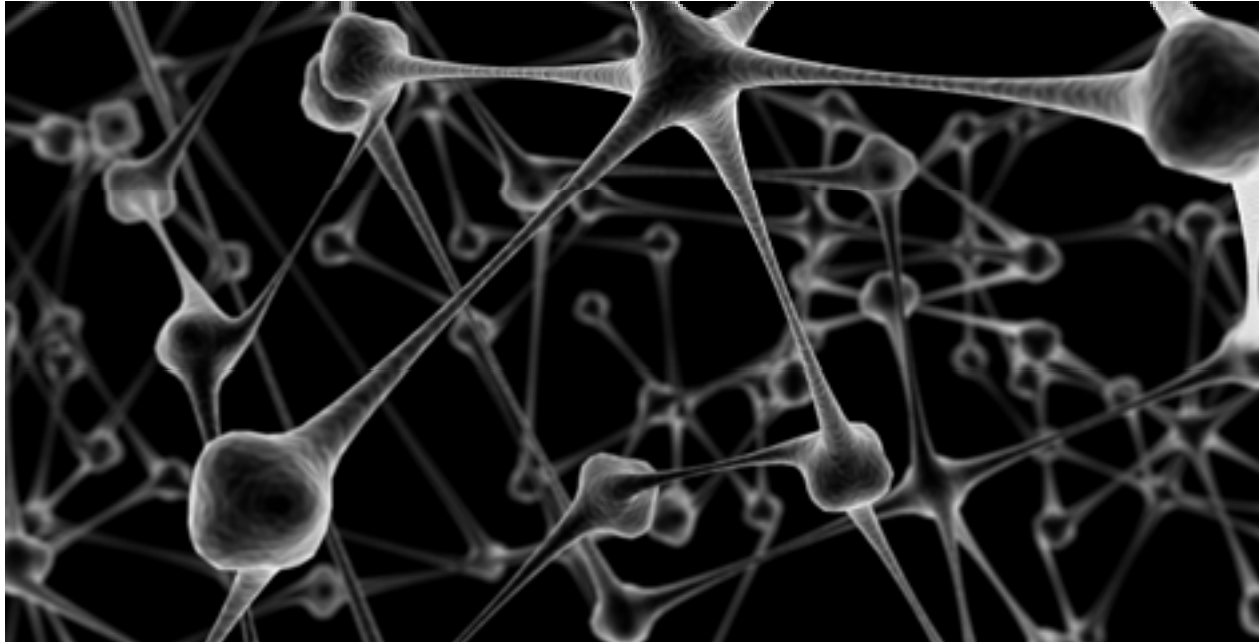
End of Ageing
(in Russia)



1 => no/low impact

5 => critical impact

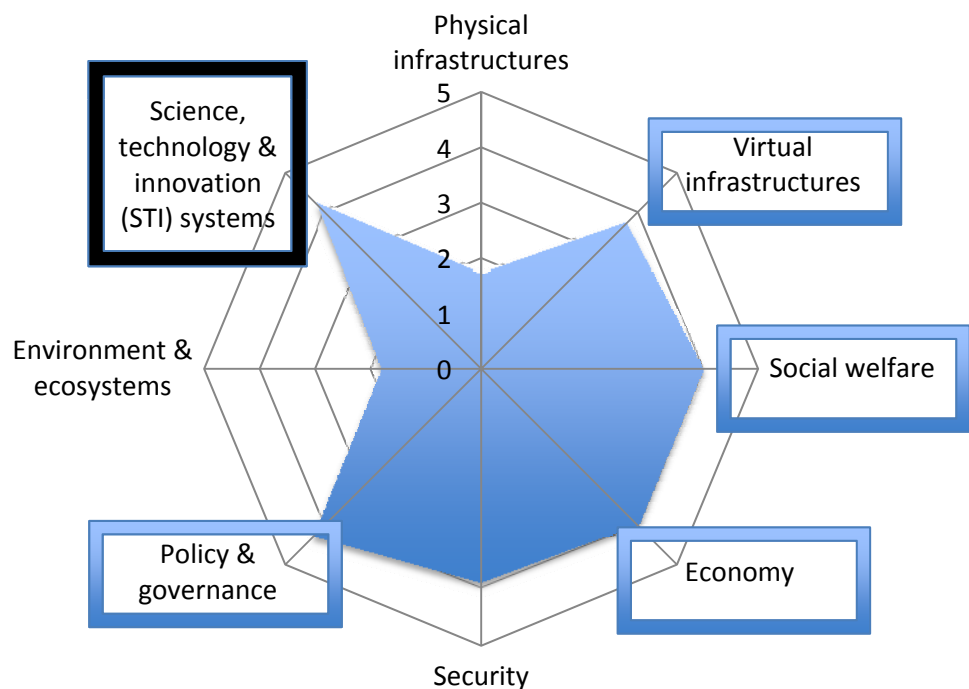
Automatic learning through neuro-data transfer



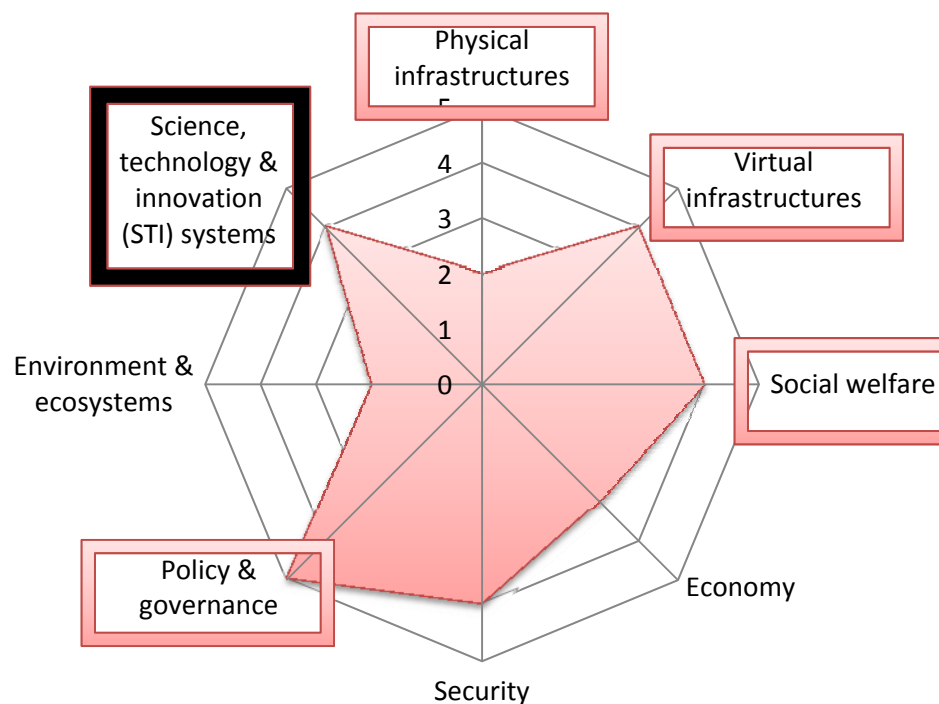
Technological enhancements of cognitive learning processes become available - but only for those able to afford them.

IMPACTS OF Automatic learning

Automatic learning through neuro-data transfer
(in Europe)



Automatic learning through neuro-data transfer
(in Russia)

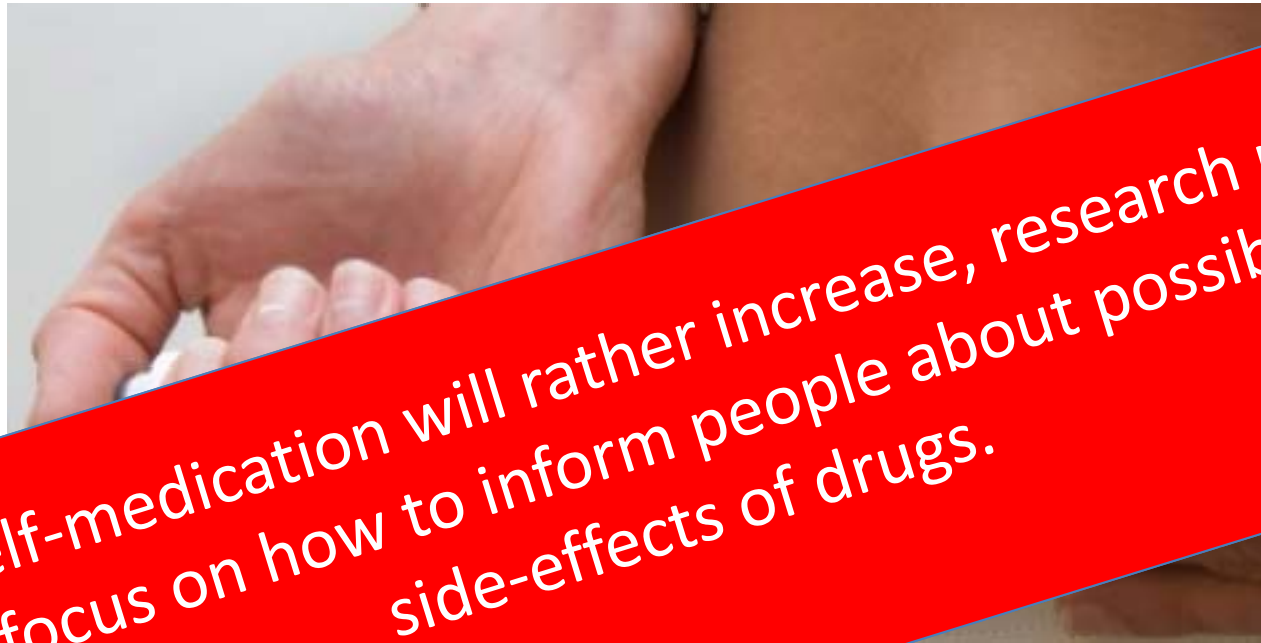


1 => no/low impact

5 => critical impact



Increasing Self-Medication

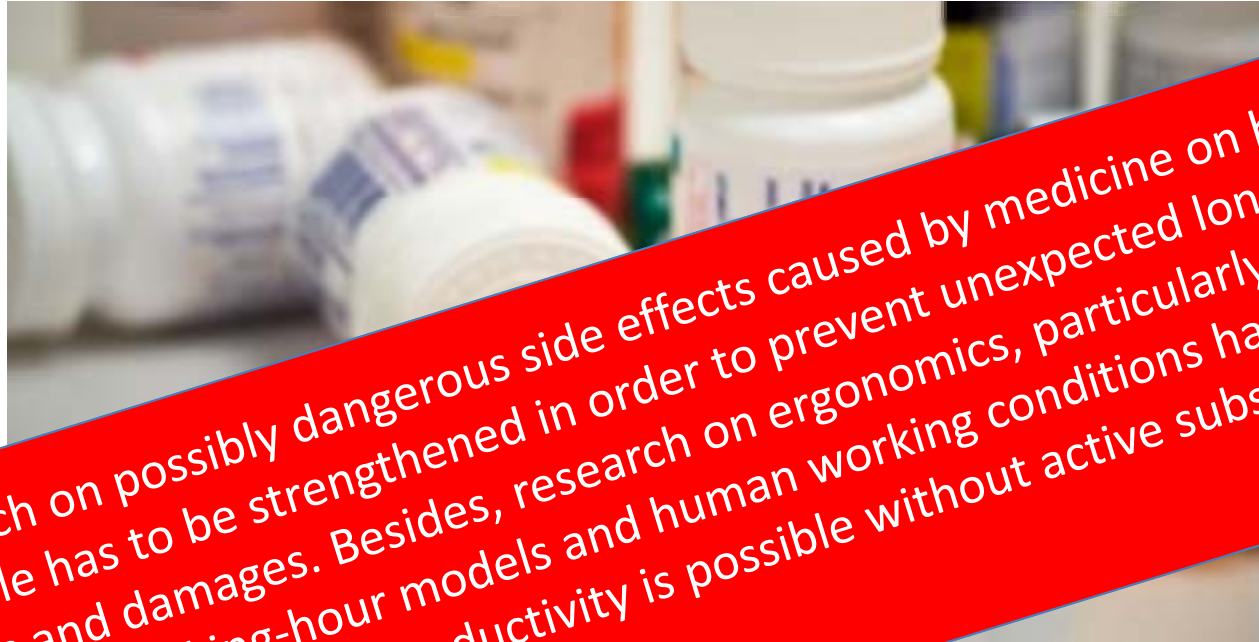


As self-medication will rather increase, research might focus on how to inform people about possible side-effects of drugs.

Doctors are less often being consulted, but patients are self-treating themselves. The probability of undetected diseases and risks for overdoses might rise significantly.



Neuro-Enhancement

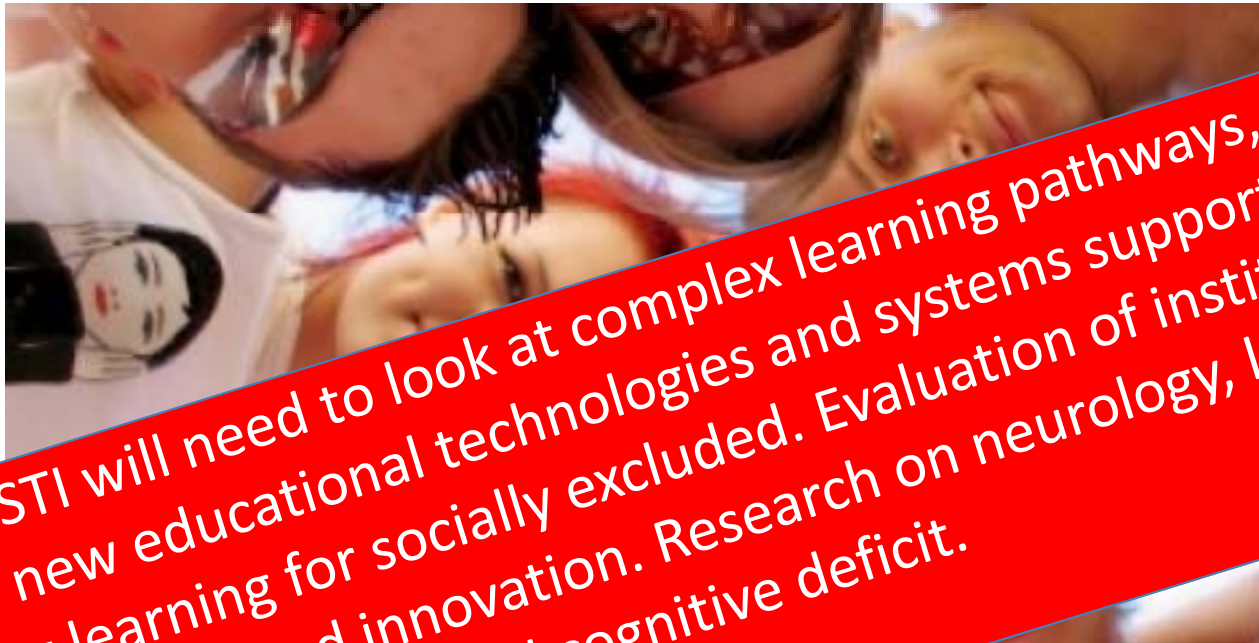


Research on possibly dangerous side effects caused by medicine on healthy people has to be strengthened in order to prevent unexpected long-term effects and damages. Besides, research on ergonomics, particularly on work forms, working-hour models and human working conditions has to be advanced, so that productivity is possible without active substances

Neuro-enhancement is introduced. The drug consumption of one's performance or mood becomes more widespread (neuro-enhancement), particularly of medicine which is usually prescribed on people with cerebral diseases.



Growing failures of social care in educating young people



Future STI will need to look at complex learning pathways, scope for new educational technologies and systems supporting lifelong learning for socially excluded. Evaluation of institutional best practice and innovation. Research on neurology, learning and cognitive deficit.

Still more evidence on widespread failure of effective education of young people in social care.



Growing interest in wild cards and weak signals research



Risk assessment procedures for research may need to be modified. Improved tools required for tracking consequences of technological projects.

The growing interest in wild cards and weak signals research has increased the complexity of STI policy intelligence & formulation. These issues considered as shapers of science, technology and innovation (STI), and, at the same time, increased the complexity of STI policy intelligence & formulation.



Concerns over SSH research "downgrade"



This signal suggest that further research may be needed on the role and contributions of social sciences and humanities (SSH) research to the European STI landscape.

Concerns over discussions about the next EC Framework Programme for Research & Technology Development (FP8) are concerned about proposals to downgrade socio-economic and humanities research role and funding.



Major EU state elects neo-fascist leader

001



Transhumanism becomes a significant force

002



Universal electronic systems breakdown

003



Wheat crisis hits humans and animals

004



Floods in Europe cause mass migration

005

Blue Sky Policy Brief 005
02.2010

FP7 themes: health, agro, int, nano, energy, environment, transport, ish, space, security
ERA goals: mobility, infrastructures, rd institutions, knowledge sharing, joint programming, cooperation

Author(s)	Joe RAVETZ, Rafael POPPER and Thorald SVENIGDOTIR (University of Manchester), Rob ASHWORTH (Regional Technology Centre Horta)
Contributor(s)	David ALEXANDER (University of Florence), Joe BALLANTYNE (The Futures Company), Alastair BROWN (UK Climate Impacts Programme), Steve CONNOR (Creative Concern), Tony DIGGLE (SAM Consulting), Pierre ROSSER (Swiss Federal Institute of Technology at Lausanne), Anna SACIO (Institute for Sustainable Technologies)
Manifestation	Sudden development
Importance for EU	★★★★★
Strategic attention	by 2030★★★★ by 2050★★★★★
Type of impact	Very negative
Inspired by	Brainstorming session and group discussions in the iKNOW Workshop in Manchester (February 2010)
Key words	flooding, mass-migration, disaster response, environment
	Negligible ★ Minor ★★ Moderate ★★★ Major ★★★★ Critical ★★★★★

Wild card

Serious protracted flooding of low-lying areas leads to mass migration to higher lying areas and forces a rethink in low country policies. This could be due to e.g. sea level rise, exceptional tide, storm surge, summer drought and consequent fluvial flooding. Migration would flow in unsuspected directions, e.g. Africa which would lead to overcrowding in higher lying areas. This would lead to ghetto formation and possibly civil unrest. Social inequality would increase as higher lying areas would be inhabited by the rich whilst lower lying and high risk areas would be inhabited by the poor.

Surprises ('wild' scenario features)

The wild factor here is not necessarily the flooding itself, which could be inevitable with ongoing rapid climate change. The lack of preparedness and policy measures to cope with the flooding and the likelihood of this happening within the next 20 years would make this a wild card. The issue of migration also adds wildness to this card and the scale and unprecedented way of the migration from lower lying areas. We are at the moment too focused on local disaster plans and not holistic cross-national plans to respond to disasters such as flooding. Migration from EU countries to Africa would make this wild card very wild, as migration stream in this direction is unprecedented in recent history and many African countries are not well prepared to receive a high volume of displaced people. Higher lying and thus sought after areas would quickly become over crowded, and civil unrest is likely to follow. This would also put a strain on natural resources in the most inhabited areas and consequently energy and food safety would be threatened.

Disclaimer: The wild card presented in this brief may not happen at all or in the near future. iKNOW is a new EU funded research project aimed to explore surprising events (wild cards) and emerging issues (weak signals) potentially shaping or shaking the future of Europe and the world. Further information at www.iknowfutures.eu



Outburst of the black economy

006



Pervasive self-diagnosis and self-treatment

007



Invisibility spray available in "Boots"

008



China's investment and services "great wall"

009



Abrupt disintegration of the Euro Zone

010

Blue Sky Policy Brief 010
02.2010

FP7 themes: health, agro, int, nano, energy, environment, transport, ish, space, security
ERA goals: mobility, infrastructures, rd institutions, knowledge sharing, joint programming, cooperation

Author(s)	Thorald SVENIGDOTIR, Ian MILES, Rafael POPPER, Yanuar NUGROHO, Joe RAVETZ (University of Manchester)
Contributor(s)	Julia DE CLERCK-SACHSSE (European Commission), Daina DUMITRESCU (Institute for Business Administration in Bucharest), Gaele Griffin (University of York), Dirk JOHANN (Austrian Centre for Social Innovation), Javier MEDINA (Universidad del Valle), Konrad MICULIOWICZ (Planning and Landscape Newcastle University)
Manifestation	Rapid development
Importance for EU	★★★★★
Strategic attention	by 2030★★★★ by 2050★★★★★
Type of impact	Very negative
Inspired by	Brainstorming session and group discussions in the iKNOW Workshop in Manchester (February 2010)
Key words	Euro zone, financial crises, civil unrest, financial markets, economic crises
	Negligible ★ Minor ★★ Moderate ★★★ Major ★★★★ Critical ★★★★★

Wild card

In order for this to be classified as a wild card this would have to happen quite rapidly. It would be largely unforeseen and any weak signals would go unnoticed. There is a chance that this might benefit some nation states whilst others would be worse off. The impact of this would be on a massive scale and this would lead to the collapse of governments and international institutions. This could potentially give the power over financial practices back to some of the nation states.

Surprises ('wild' scenario features)

What would be wild about this card is that the economy of the EU will be brutally affected and the deregulation between countries will be evident. The flow of capital and the role of Euro will drop leading to a competitive devaluation of 'new' countries in Europe. There will be huge speculation and proposals of the Deutschemark as de facto European currency.

Also, what could be considered wild will be the apparent failure of Eurobased common currency as all efforts to integrate member states' monetary systems come to nothing. Countries put out of the Euro and revert to national currency or perhaps an entirely non European Currency like the Yen or the Dollar? The EU might disintegrate into different currency zones.

Loss of balance and widening of gaps among the European countries. Rich countries increase the gap against poor countries. Loss of economic integration affects political and cultural integration. Loss of funding of the European project. What is also a wild feature here is the scale of the impact of this wild card, which will be felt throughout societies and even throughout the world.

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Exploiting iKNOW Policy Briefs

iKnow* Interconnecting Knowledge

Major EU state elects neo-fascist leader

Policy Brief ID: 001

FP7 themes: health | agro | info | nano | energy | environment | transport | ssh | space | security

ERA goals: mobility | infrastructure | rtd institutions | knowledge sharing | joint programming | cooperation

Blue Sky Policy Brief 001
02.2010

Author(s): Rafael POPPER, Ian MILES, Yanuar NUGROHO, Joe RAVETZ, Thoralis SVEINSDOTTIR (University of Manchester)

Contributor(s): Julia DE CLERCK-SACHSSE (European Commission), Dalia DUMITRESCU (Institute for Business Administration in Bucharest), Gabriele GRIFFIN (University of York), Dirk JOHANN (Austrian Centre for Social Innovation), Javier MEDINA (Universidad del Valle), Konrad MICUKIEWICZ (Planning and Landscape Newcastle University)

Manifestation	Potential impacts in Europe
Gradual development	infrastructures ★★★★★
Importance for EU ★★★★★	people's lives ★★★★★
Strategic attention by 2030 ★★★★★ by 2050 ★★★★★	legislation & regulation ★★★★★
Type of impact: Very negative	economy & business ★★★★★
Inspired by: EC research on Social Sciences and Humanities (Conflicts, peace and human rights)	defence & security ★★★★★
Related to: FP7 projects: CRIC, INFOCON	government & politics ★★★★★
Key words: democracy, far-right, fascism, media, migration, nationalism, politics, racism	environment & ecosystems ★★★★★
	science & technology ★★★★★

Negligible ★ Minor ★★ Moderate ★★★ Major ★★★★ Critical ★★★★★

Wild card

Current socio-economic challenges in Europe (such as demographic pressures and growing unemployment) are creating the conditions for far-right parties to make major gains in the European political arena. Security fears associated with militant Islamism fuel distrust and suspicion about specific ethnic and religious minorities. These developments could eventually create the conditions for a major EU state electing a neo fascist leader.

Surprises ('wild' scenario features)

The existence of political parties with far-right agendas is not a new feature in European politics. What is really 'wild' or surprising in this event is the achievement of sufficient political momentum for a major EU state to elect a neo fascist leader, bringing these movements from the fringe to the centre of politics, and potentially fuelling other far-right parties in Europe and possibly globally. Extreme nationalist feelings could destabilise European political and economic co-operation, while racism and authoritarian practices could undermine fundamental European values and ideals such as the need for social cohesion and social inclusion.

It remains to be seen whether far right movements across Europe could co-operate on matters other than those involving common enemies. The result would be a climate of uncertainty and lack of consensus on the democratic constitution of European societies. An atmosphere of extremist philosophy, harsh policy and political intolerance could possibly lead to the differentiation between first, second and third class citizens.

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- Author(s)
- Contributor(s)
- Manifestation
- Strategic attention
- Type of impact
- Inspired by
- iKNOW workshops
- iKNOW interviews
- iKNOW delphi
- iKNOW scanning
- iKNOW Community
- Related to
- Keywords
- Short description
- Surprising features

- Policy Brief ID
- Links to FP7
- Links to ERA
- Impacts in Europe
- infrastructures
- peoples' lives
- regulation & legislation
- defence & security
- government & politics
- environment & ecosystems
- science & technology

Exploiting iKNOW Policy Briefs

Methodology

- iKNOW workshops
- iKNOW interviews
- iKNOW delphi
- iKNOW scanning
- iKNOW Community

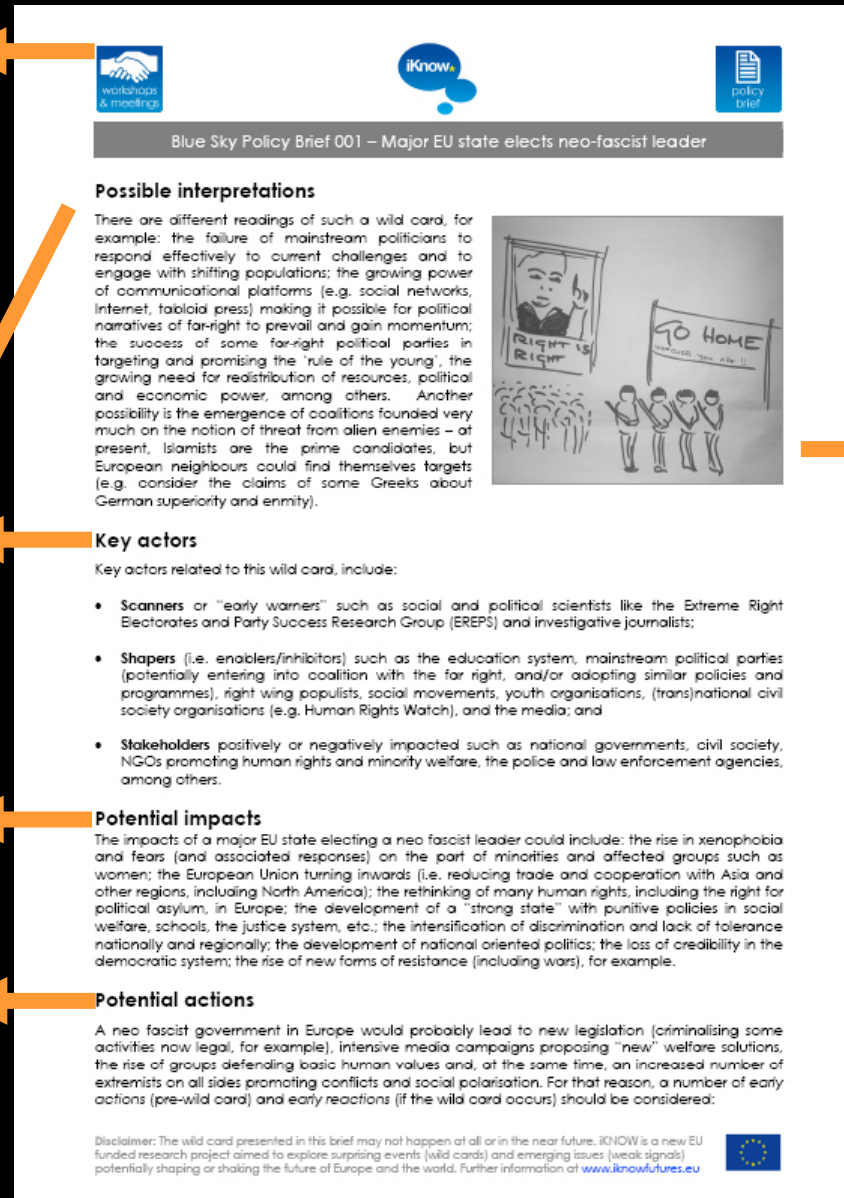
Possible interpretations

Key actors

- Scanners
- Shapers
- Stakeholders

Potential impacts

Potential actions




workshops & meetings **iKnow** **policy brief**

Blue Sky Policy Brief 001 – Major EU state elects neo-fascist leader

Possible interpretations

There are different readings of such a wild card, for example: the failure of mainstream politicians to respond effectively to current challenges and to engage with shifting populations; the growing power of communicational platforms (e.g. social networks, Internet, tabloid press) making it possible for political narratives of far-right to prevail and gain momentum; the success of some far-right political parties in targeting and promising the 'rule of the young', the growing need for redistribution of resources, political and economic power, among others. Another possibility is the emergence of coalitions founded very much on the notion of threat from alien enemies – at present, Islamists are the prime candidates, but European neighbours could find themselves targets (e.g. consider the claims of some Greeks about German superiority and enmity).



Key actors

Key actors related to this wild card, include:

- **Scanners** or "early warners" such as social and political scientists like the Extreme Right Electorates and Party Success Research Group (EREPS) and investigative journalists;
- **Shapers** (i.e. enablers/inhibitors) such as the education system, mainstream political parties (potentially entering into coalition with the far right, and/or adopting similar policies and programmes), right wing populists, social movements, youth organisations, (trans)national civil society organisations (e.g. Human Rights Watch), and the media; and
- **Stakeholders** positively or negatively impacted such as national governments, civil society, NGOs promoting human rights and minority welfare, the police and law enforcement agencies, among others.

Potential impacts

The impacts of a major EU state electing a neo fascist leader could include: the rise in xenophobia and fears (and associated responses) on the part of minorities and affected groups such as women; the European Union turning inwards (i.e. reducing trade and cooperation with Asia and other regions, including North America); the rethinking of many human rights, including the right for political asylum, in Europe; the development of a "strong state" with punitive policies in social welfare, schools, the justice system, etc.; the intensification of discrimination and lack of tolerance nationally and regionally; the development of national oriented politics; the loss of credibility in the democratic system; the rise of new forms of resistance (including wars), for example.

Potential actions

A neo fascist government in Europe would probably lead to new legislation (criminalising some activities now legal, for example), intensive media campaigns proposing "new" welfare solutions, the rise of groups defending basic human values and, at the same time, an increased number of extremists on all sides promoting conflicts and social polarisation. For that reason, a number of early actions (pre-wild card) and early reactions (if the wild card occurs) should be considered:

Disclaimer: The wild card presented in this brief may not happen at all or in the near future. iKNOW is a new EU funded research project aimed to explore surprising events (wild cards) and emerging issues (weak signals) potentially shaping or shaking the future of Europe and the world. Further information at www.iknowfutures.eu

Visualisation

Exploiting iKNOW Policy Briefs

Potential actions (cont.)

- policy actions
- business actions
- research actions

Weak Signals



Weak signals

There are several signals warning us about the probability of occurrence of such a wild card. Some of these are related to the political environment, for example: the domination of right wing parties in the last elections to the European parliament; the break away from mainstream parties to the far right; the political momentum gained by the recently created Alliance of European National Movements (AENM), which up to now brings together far-right parties in nine countries (Belgium, France, Hungary, Italy, Portugal, Spain, Sweden, Ukraine and the UK); and the power gained by far-right parties in recent elections in terms of new Members of the European Parliament (MEP) with 3 MEPs for the French National Front (FN), 3 for the Movement for a Better Hungary (Jobbik) and 2 for the British National Party (BNP). Distrust in, and disaffection with, established political parties and elites is a major contributory factor, and is associated with a more general distrust of many experts and their claims – e.g. about climate change. Intimately linked to these political signals, we can see major achievements in terms of media coverage (e.g. the BNP leader was able to reach more people after his appearance in BBC's main current-affairs debate programme Question Time) and the growing number of alternative media, blogs, tabloid press and newspapers endorsing some far-right policies and politicians. Among the socio-economic signals, we can include: the popular backlash against the spread of globalisation; the shift back to nationalism across the EU, which in some countries translates into resentment of outsiders and Islamophobia; the growing concerns about large and uncontrolled population movements (e.g. migration and refugee situations); and the negative impacts of the financial crises (e.g. reduction of public and private investment, loss of jobs, increase of poverty and revival of historical controversies polarising society).

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Blue Sky Policy Brief 001 – Major EU state elects neo-fascist leader

• Policy actions

Early actions: To make far-right movements more visible (e.g. including lessons from history in education); To reduce social polarisation in education; To enhance democratic participation and consensus building practices; To provide real and practical solutions to problems such as poverty and inequality; To promote community integration programmes;

Early reactions: To avoid radical changes in legislation; To avoid drastic changes in police and law enforcement policies; To defend minorities law; To use soft power to negotiate with far-right regimes; To concentrate power within government alliances; To welcome the displaced and dispossessed.

• Business actions

Early actions: To promote corporate social responsibility; To use business power to promote equality and human rights; To make sure equality and human rights are respected in the workplace; To research into integration models.

Early reactions: To continue promoting the above and making sure that that racist/neo-fascist discourses do not dictate their practices; To continue trade with countries outside of EU.

• Research actions

Early actions: To promote research on mass media, political discourse and electoral census analysis; To increase research on the current and future effects of migration; To research the roots of far-right wing support and, in contrast, or openness and tolerance and how they may be fostered; To review lessons of authoritarian personalities; To identify and analyse social mechanisms hampering democracy; To explore new ways of addressing inequalities and delivering social change;

Early reactions: Continued research focus on the issues named above. Research community would need to continue presenting research findings that would promote understanding of immigration, inequalities, multiculturalism, tolerance and human rights.

Exploiting iKNOW Policy Briefs

Imaginary Call
 Thematic area(s)
 Research topic
 Objective
 Expected impact
 Importance for Europe

workshops & meetings **iKnow** **policy brief**

Blue Sky Policy Brief 001 – Major EU state elects neo-fascist leader

Recommended research

Thematic area
 Social Sciences and Humanities (SSH) and Security.

Research topic
 Future changes in Europe's political landscape.

Recent electoral results in various member states demonstrate a gradual shift to right wing and nationalistic politics. Members of far-right wing and extreme nationalist parties are also winning seats in local, national and EU governmental institutions. The reasons for the shift by voters to the far-right could be attributed to, among other factors, the increasing power of global actors (i.e. loss of the national vision/agenda) and increasing migration. Recent history has demonstrated the consequences of unbridled right wing extremism and research is vital to determine the cause of recent shift toward this ideology so that appropriate response can be formulated.

Objective
 Research could focus on shift in public perception which gives rise to far-right electoral shift by studying the roots of right wing support. Research could, for that purpose, focus on analysing mass media and political discourse in order to understand attitudes towards far-right ideology. Research can be both backward and forward looking in that it examines past and contemporary far-right support as well as the future of far-right support in Europe. Research could focus on challenges such as poverty, inequality and immigration to determine their role in public support for far-right ideology.

Expected impact
 Research should a) determine the scale of the shift towards far-right political ideology; b) determine variations and commonalities between far-right movements in Europe c) devise strategies for appropriate policy responses across EU; d) inform common legislation and regulation across EU; e) inform educational strategies that will increase democratic participation and teach the history of far-right movements and their influence on European history.

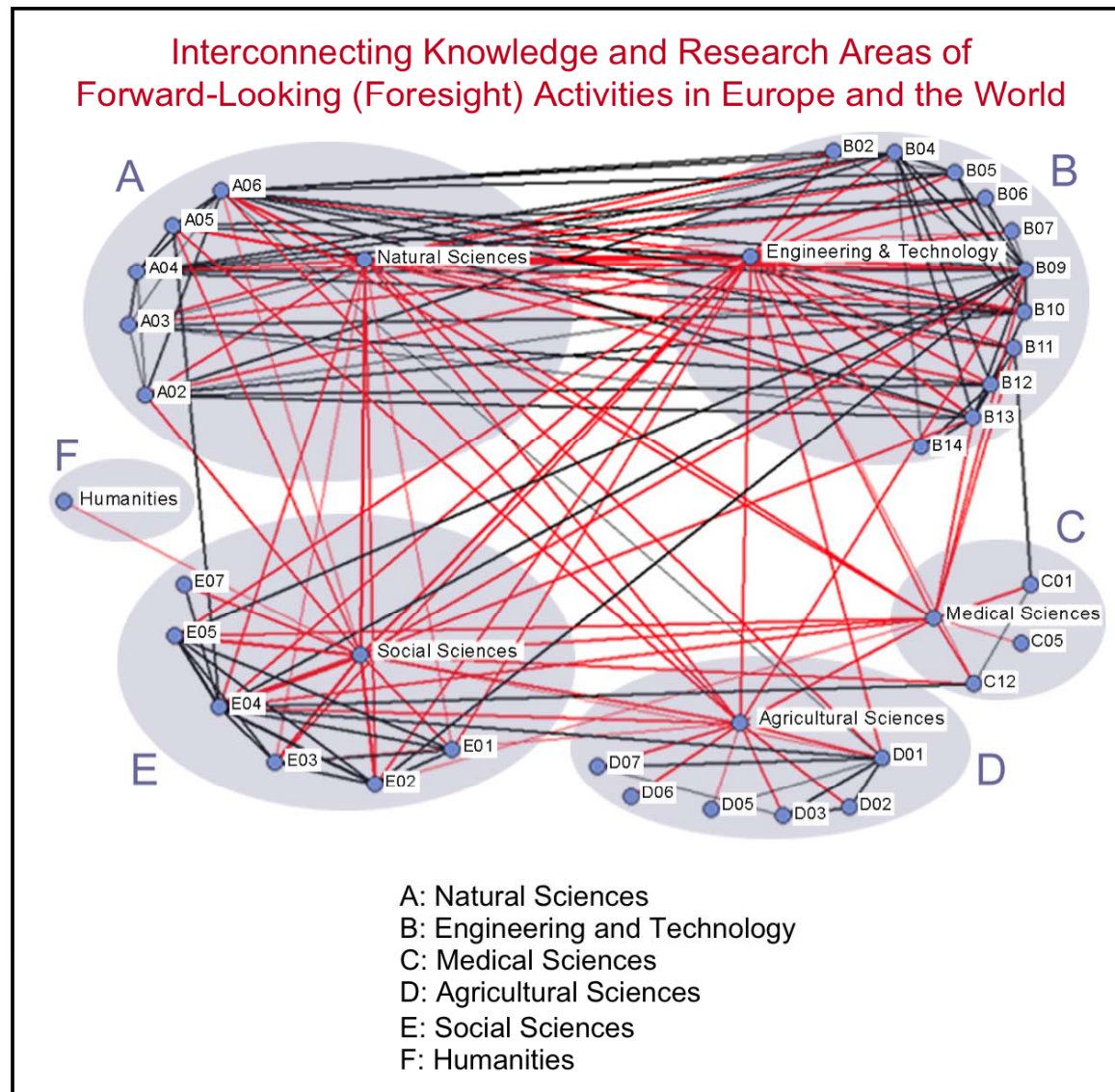
Importance for Europe
 Europe has seen, in recent history, the devastating effect of extreme far-right support. It is vital that policy responses which aim to monitor and respond to this shift are informed by research which aims to understand this attitude shift as well as predict foreseeable implications these changes may have. It is furthermore important that EU forms a coherent legislative response that could guide member states in forming their legislation.

iKnow interconnecting knowledge

iKNOW is a Blue Sky foresight and horizon scanning research and technology development (RTD) initiative aimed to advance knowledge and tools for the early identification and analysis of events and developments potentially shaping and shaking the future of science, technology and innovation (STI). iKNOW is run by an international consortium lead by the University of Manchester and sponsored by the European Commission Directorate General for Research. By supporting Blue Sky RTD the EC aims to create more proactive European research policies that will be capable of anticipating challenges and opportunities associated to emerging issues, wild cards and weak signals (WI-WE). Wild Cards are situations/events with perceived low probability of occurrence but potentially high impact if they were to occur. Weak Signals are unclear observables warning us about the probability of future events (including Wild Cards). They implore us to consider alternative interpretations of an issue's evolution to gauge its potential impact.

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Driver 1: Need to Interconnect Knowledge



Driver 2:

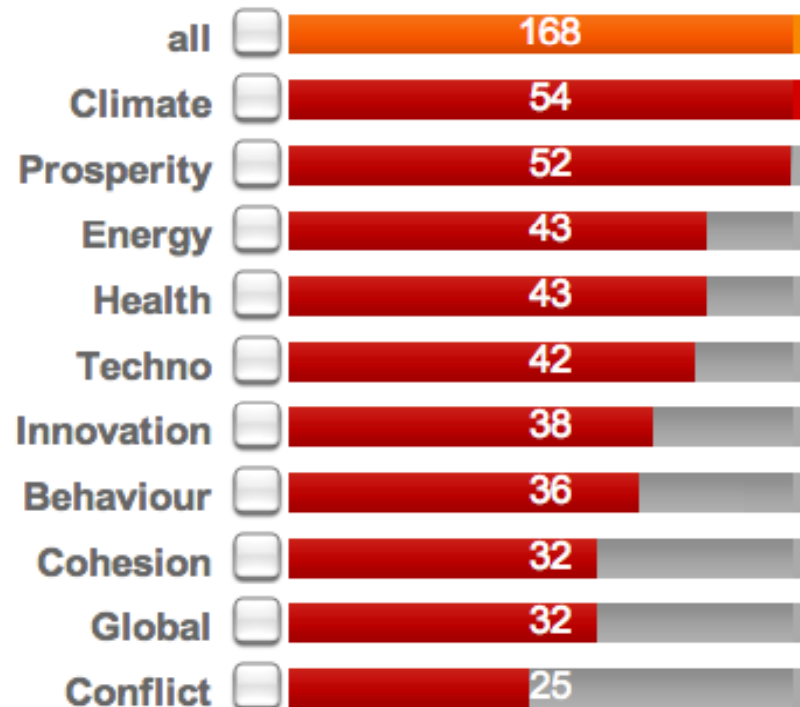
Need to deal with Grand Challenges



*Challenging Europe's Research:
ERA Rationales (2009)*

Luke Georghiou, Jennifer Harper, Philip
Cooke, Susan Cozzens, Andrew Dearing,
Luisa Henriques, Jerzy Langer, Philippe
Laredo, Luis Sanz Menendez, Matthias
Weber, Rafael Popper

Socio-Political (13 GCs)
Techno-Economic (6 GCs)
Environmental (2 GCs)



Driver 3:

Need for an **Innovative Policy Alert System**

Such system requires more participatory and evidence-based conceptual, methodological, technological and communicational **innovations** capable of:

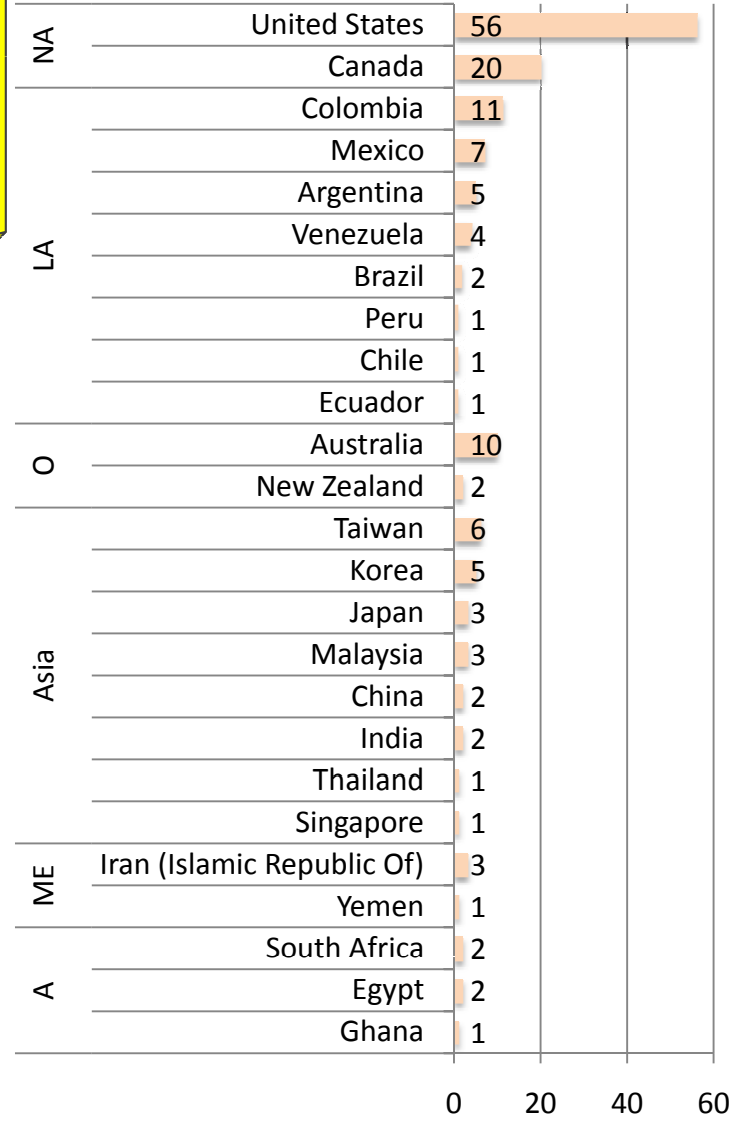
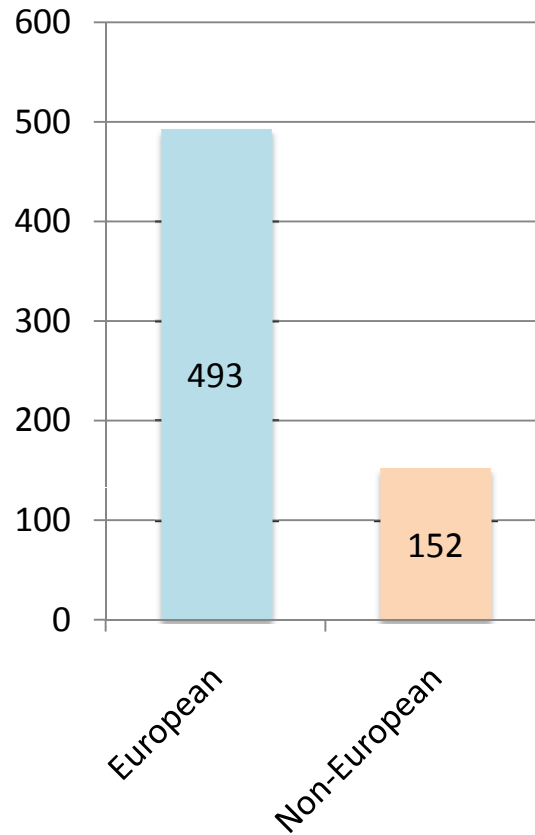
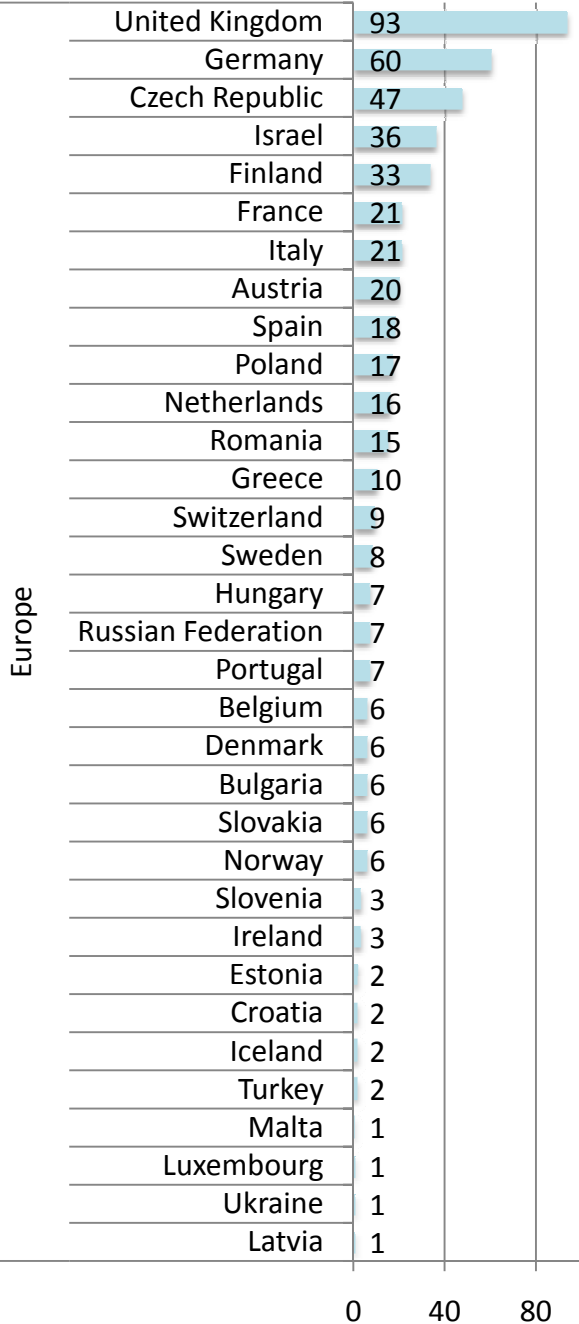
- Supporting the **identification, evaluation** and **exploitation** of knowledge related to **complex and highly uncertain issues** (e.g. wild cards and weak signals) and,
- Interconnecting the European and global research, innovation, foresight & horizon scanning **communities**.

A web 2.0 innovation network led by MIOIR



Are you already in?

So far (6.4.2011),
750+ professionals
have joined the
innovation & foresight
community of iKnow!
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