RISK GOVERNANCE:
Trends and challenges

Future Forum for Public Security

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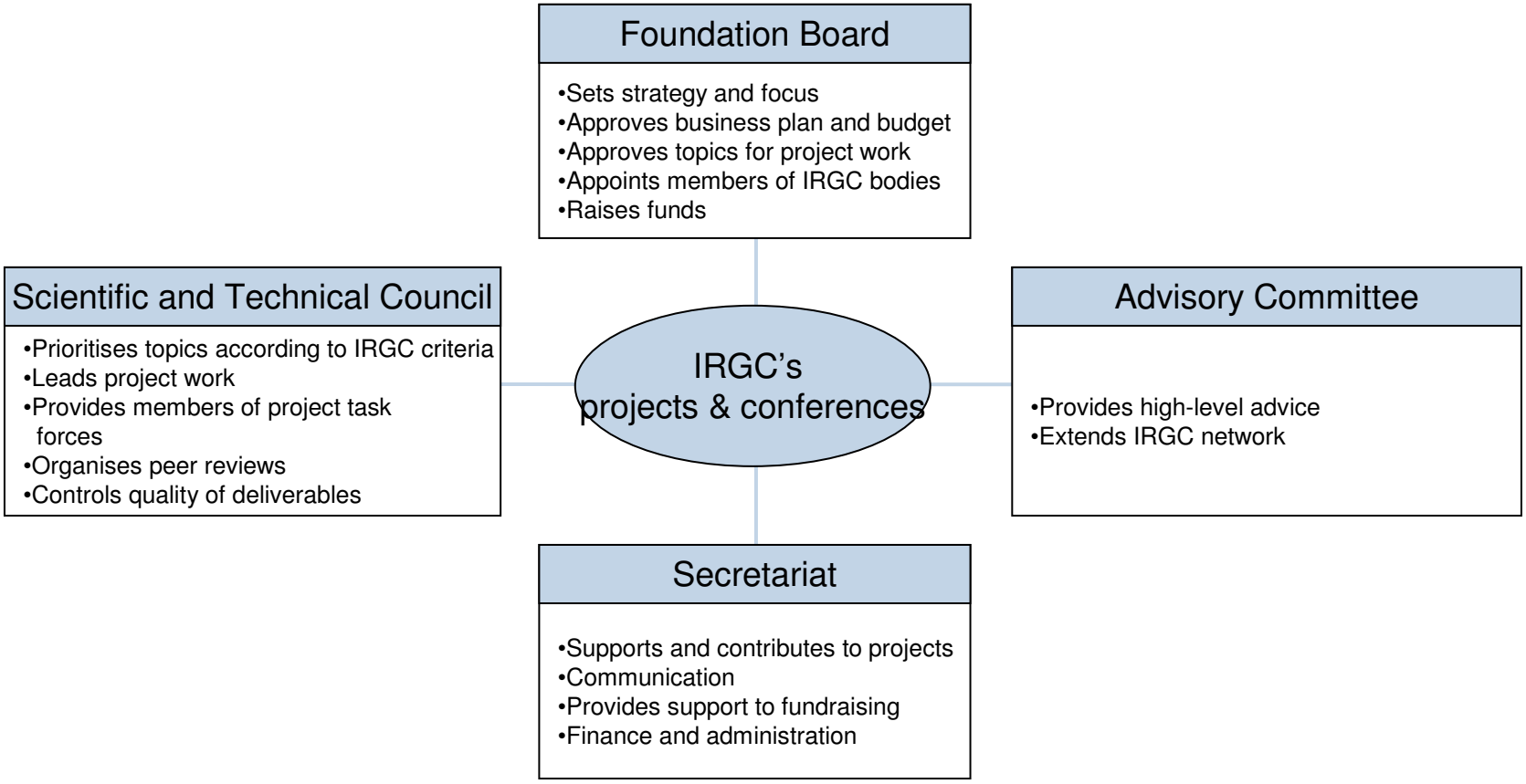
IRGC STRUCTURE



CHAIRMEN OF IRGC'S BOARD AND SCIENTIFIC AND TECHNICAL COUNCIL

Donald Johnston, Chairman of the Board

Former General Secretary, Organisation for Economic Co-operation and Development

- Upon taking office as General Secretary of the OECD in June 1996, Mr. Johnston moved from a career as a lawyer and politician who spent 10 years in the Canadian Parliament and served as a Cabinet Minister in a number of senior portfolios
- In 1988, he ended a decade of political life to become legal counsel to the Canadian law firm, Heenan Blaikie

M Granger Morgan, Chairman of the Scientific and Technical Council

Professor and Department Head, Engineering and Public Policy, Carnegie Mellon University, USA

- Prof. Morgan holds a BA from Harvard College, where he concentrated in Physics, an MS in Astronomy and Space Science from Cornell and a PhD from the Department of Applied Physics and Information Sciences at the University of California at San Diego (1969)
- His research involves the development of methods to characterise uncertainty in quantitative policy analysis

THE RISK GOVERNANCE CHALLENGE

The challenge of better risk governance lies in enabling societies to benefit from change while minimising the negative consequences of the associated risks

WHAT IS RISK GOVERNANCE?

- ***Risk*** is an uncertain consequence (positive or negative) of an event or activity with respect to something that people value

- ***Governance*** refers to the actions, processes, laws, traditions and institutions by which authority is exercised and decisions are taken and implemented

- ***Risk governance*** refers to the identification, assessment, management and communication of risks in a broad, governance, context

- ***Good practice in risk governance*** integrates the principles of good governance within the traditional risk-handling process of risk identification, assessment, management and communication

OUR UNDERSTANDING OF THE NATURE OF RISK IS CHANGING; SO MUST OUR HANDLING OF RISK

- Innovations in science, technology and communication have caused societies to experience both an **increase in knowledge** and a greater awareness of a lack of knowledge

- **Emergence of systemic risks** that are:
  - transboundary
  - socially amplified via perception and social mobilisation
  - subject to expert dissent regarding risks and benefits
  - unmanageable by single organisations

- With a heightened **perception of risk** and **needing trust in decision makers**, people must:
  1. accept (adapt to…)
  2. manage (reduce, regulate, build resilience…) and/or
  3. transfer (insurance)

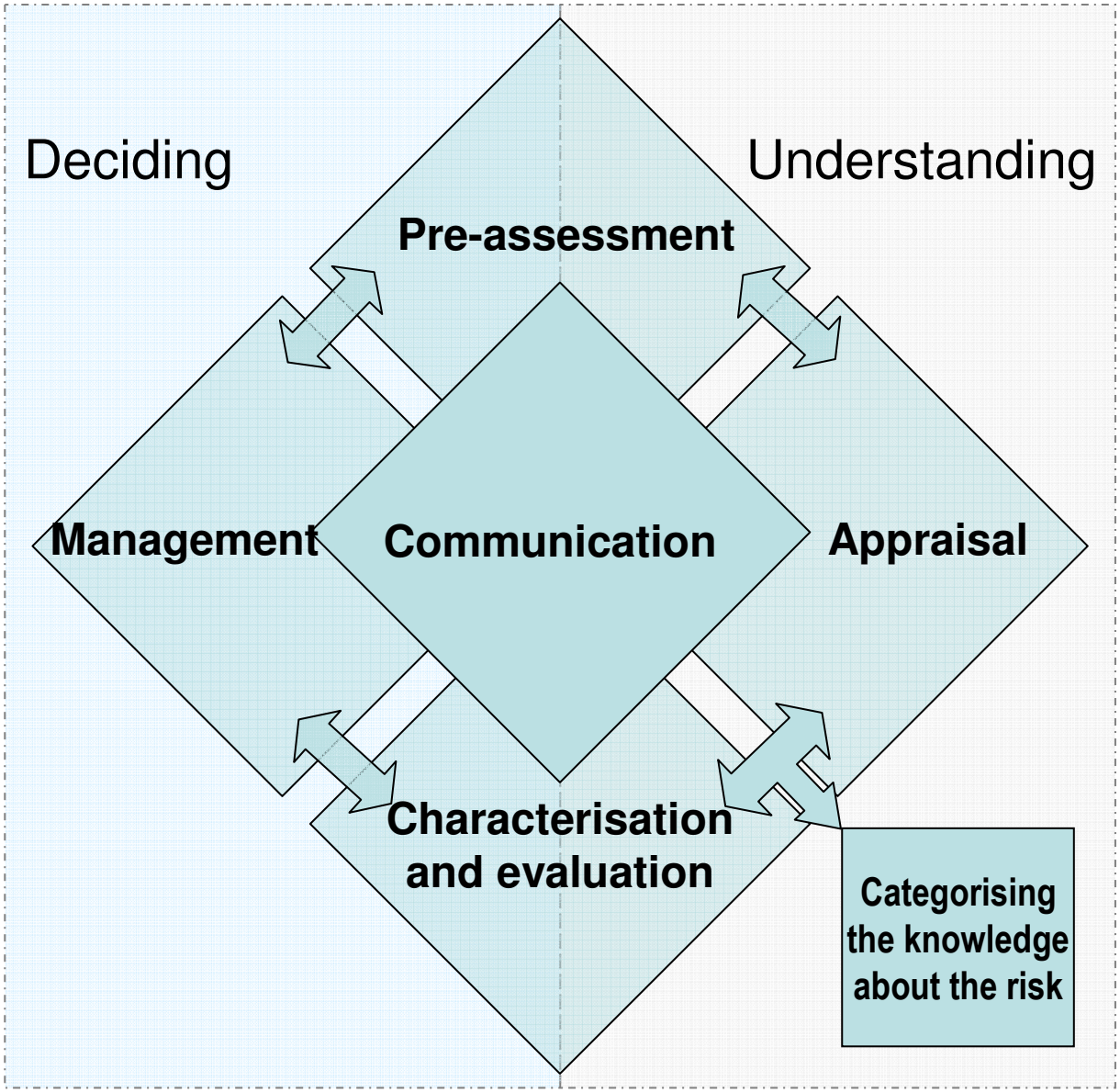
  the risk they experience or perceive.

THE RISK GOVERNANCE PROCESS HAS TO ACCOUNT FOR CERTAIN SPECIFIC DIMENSIONS OF THE PARTICULAR RISK

- Degree of **novelty** – is the risk:
  - emerging or re-emerging
  - increasingly important / current (topical) or
  - institutionalised?
- **Scope**: is the risk:
  - local
  - dispersed
  - transboundary or
  - global?
- If related to **new technology**, is the change:
  - incremental or
  - breakthrough?
- The possibility or not for **transfer or insurability**
- Level of **public concern** and stakeholder involvement
- Form of **regulatory framework** (and the level of compliance with it)
  - regulation
  - standards
  - voluntary guidelines
  - national/international

…AMONGST MANY OTHER DIMENSIONS

IRGC'S RISK GOVERNANCE FRAMEWORK



INNOVATIONS IN THE IRGC'S FRAMEWORK

1. The **pre-assessment** phase
   - extending problem definition…"framing" by difference stakeholders

2. Including **concern assessment** as part of risk appraisal

3. **Categorising the knowledge** about the risk as:
   - simple
   - complex
   - uncertain
   - ambiguous

4. The **characterisation and evaluation** phase
   - is the risk acceptable, tolerable or unacceptable?

NOVELTY AND PRECAUTION: THE IMPACT OF **FRAMING** ON THE RISK-HANDLING OF GMOs

Some of the differences between EU and US approaches to the regulation of GM crops can be traced to a very early difference in the framing of the technology for regulatory purposes.

Copyright: Freakingnews.com

In the EU, GM crops were framed as a **radical departure** from any previous products and were seen as requiring path-breaking regulatory approaches.

The US, in line with the OECD approach, framed them as inherently **similar to existing products** developed through conventional plant breeding programmes and therefore not requiring any additional scrutiny beyond existing regulatory systems, for example for pesticides, food for human consumption or animal feeds (i.e. they were seen as requiring path-dependent and evolutionary regulation).

Taken from Risk governance of genetically modified crops – European and American perspectives, Joyce Tait, for publication by Springer in 2007 in the book "*Global Risk Governance: Concept and Practise Using the IRGC Framework*"

BRENT SPAR – UNDERESTIMATING STAKEHOLDER **CONCERN**

© Greenpeace / David Sims

Greenpeace's campaign included occupation of the platform but did **not** include calling for a consumer boycott. Nonetheless, Shell is estimated to have lost between £60-100 million, mostly from lost sales across northern Europe

REGULATION AND CONSUMER SOVEREIGNTY - LISTERIA IN RAW MILK SOFT CHEESE

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Newsroom > Food Recalls and Allergy Alerts > Archives

Notice

This archive of previously issued food recalls and allergy alerts is provided for reference and research purposes.

Users should note that the products listed in the archive have been subject to removal from the marketplace or appropriate corrective action. Food recalls or allergy alerts are not an indication of the food safety status of products produced at a later date.

HEALTH HAZARD ALERT

ST. JOHN'S BRAND FRESH CHEESE (WITH A PICTURE OF A COW ON THE LABEL) MAY CONTAIN *LISTERIA MONOCYTOGENES*

OTTAWA, January 14, 2005 - The Canadian Food Inspection Agency (CFIA) and the Portuguese Cheese Company are warning the public not to consume

LISTERIA IN RAW MILK SOFT CHEESE

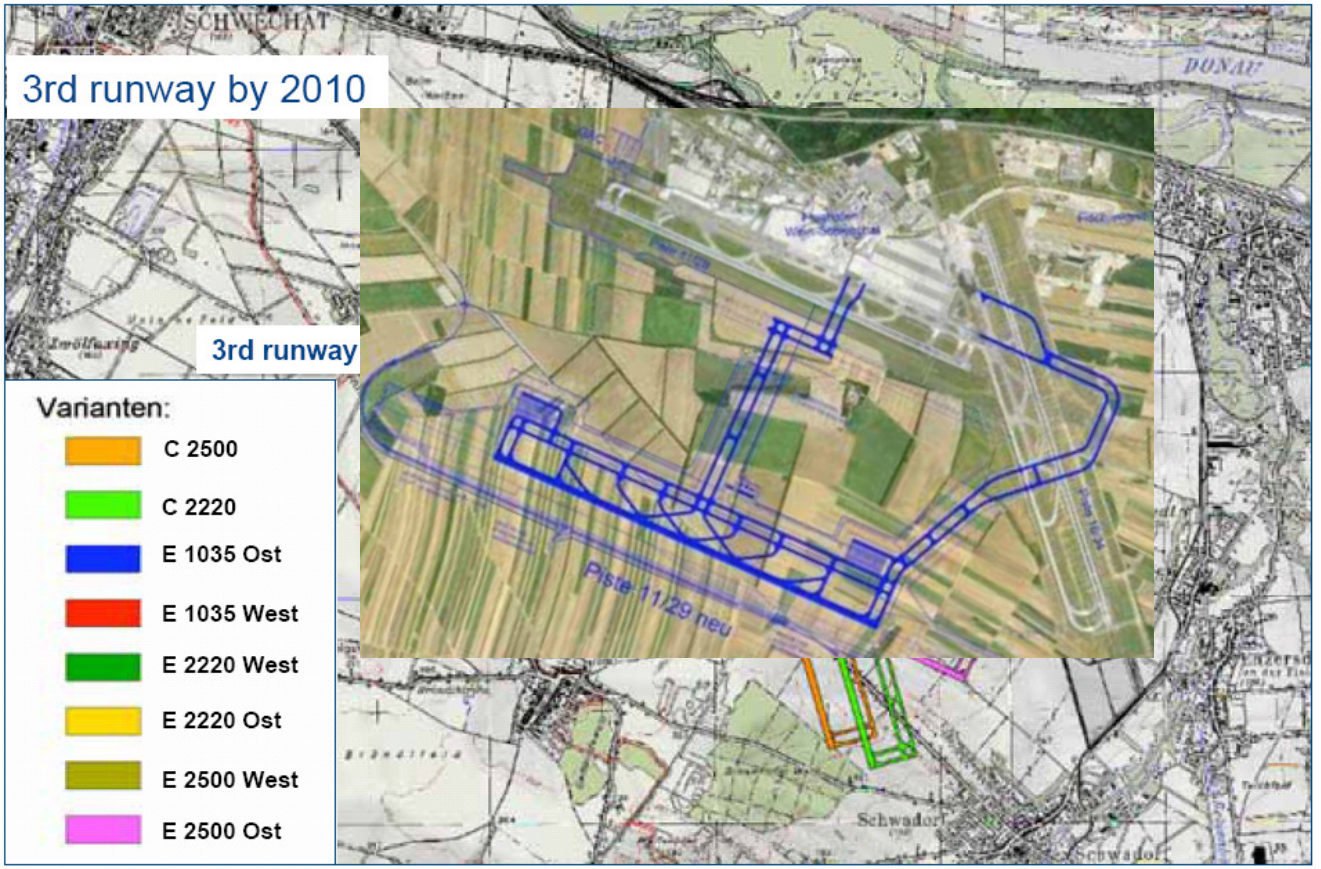
- Between 1980 and 1996 there were 16 reported outbreaks of food-borne illness linked to cheese consumption in the US, Canada and Europe associated with cheese produced using unpasteurised milk
- In **one of them, there were 284 reported illnesses and 86 deaths**
- Illegal in the US to produce and sell soft and fresh cheeses (eg brie, camembert) using unpasteurised milk, but practice continues on a small scale (cultural heritage etc); **some connoisseurs consider the use of unpasteurised milk as essential for making the "best" cheese**
- Some US "gourmet" cheese producers use unpasteurised milk – less flavour from pasteurised milk
- Two frames emerge:
  - Consumer sovereignty
  - Illness prevention

GETTING STAKEHOLDER INVOLVEMENT RIGHT – VIENNA AIRPORT

Agreed position of runway

higher costs for FWAG

higher level of acceptance by local residents



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Source: presentation by Friedrich Lehr, Vice President Airline and Terminal Services, Vienna Airport, October 2006

GETTING STAKEHOLDER INVOLVEMENT RIGHT – VIENNA AIRPORT

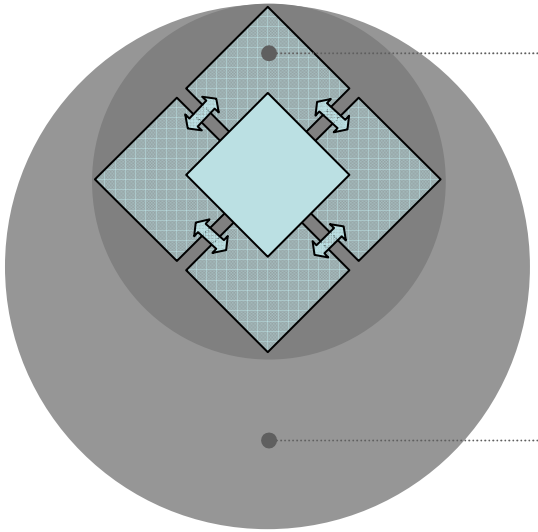
- **Opposition to the increase in aircraft traffic and associated noise around Vienna Airport came to a head in 2000** when local interest groups were not consulted about plans for a third runway

- Anticipating long delays to the Environmental Impact Assessment, the airport operating company decided to address public concerns and set up an Environment Mediation Process

- Initiated by Viennese Environmental Legal Office and the airport operating company, **55 parties took part in what became the largest environmental mediation process in Europe**

- At its conclusion in June 2005, contracts were signed which included a **legally binding framework for the extension of the airport** and regulation of the number of flight movements

RISK GOVERNANCE INCLUDES AND IS SENSITIVE TO CONTEXT



Core Risk Governance Process

- pre-assessment
- risk appraisal
  - -- risk assessment
  - -- concern assessment
- evaluation: tolerability / acceptability judgement
- risk management
- communication

Organisational Capacity

- assets
- skills
- capabilities

Most risk management is done in this context only

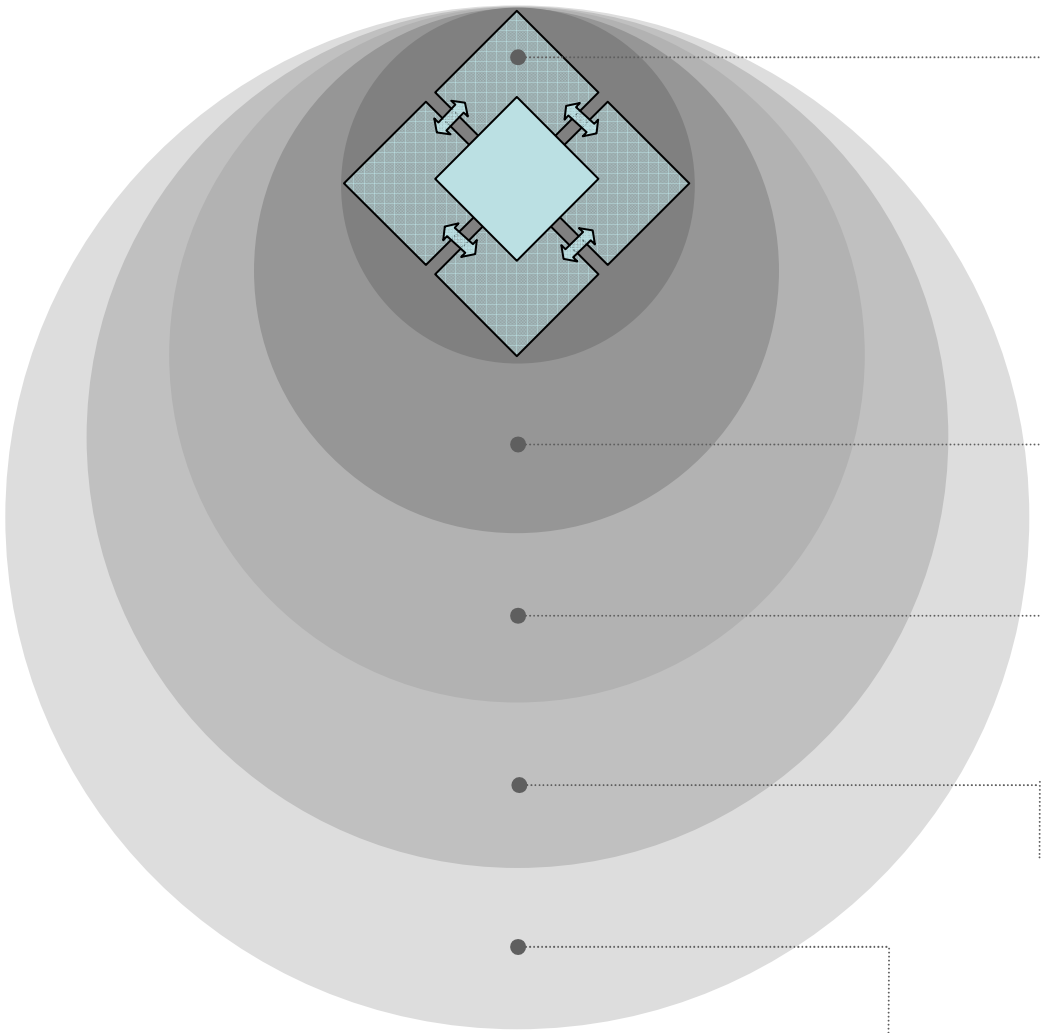
ONE RESULT OF A DEFICIT IN ORGANISATIONAL CAPACITY

(AP Photo/Phil Coale)

"The Gulf Coast States have attempted to coordinate contraflow plans with neighboring States that may be affected, but exercises, traffic simulations, and other analyses to evaluate evacuation options for catastrophic incidents on the scale of Hurricane Katrina have not been conducted."

Catastrophic Hurricane Evacuation Plan Evaluation, A Report to Congress; US Dept of Transportation and Dept of Homeland Security, June 2006

RISK GOVERNANCE GOES MUCH FURTHER



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Organisational Capacity
- assets
- skills
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Actor Network
- politicians
- regulators
- industry/business
- NGOs
- media
- public at large

Political & Regulatory Culture
→ different regulatory styles

Social Climate
- trust in regulatory institutions
- perceived authority of science
- degree of civil society involvement
- risk culture

SOME POTENTIAL RISK GOVERNANCE **DEFICITS**

- **Framing –** different stakeholders have conflicting views of the issue
- **Scope –** a risk perceived as only local may have global consequences (and vice versa)
- There is a **scarcity of data** about the risk or people's perceptions of it or, if data does exist, there is a failure to accept it
- **Transparency –** trade-offs are not made explicit and hidden agendas seem to determine the outcome
- **Sustainability** – short-term decisions lead to secondary problems
- **Inequity** – decisions allot the risk and benefits unfairly
- **Accountability** – decision makers are isolated from the impact of their decision
- **Alienation** – people or organisations are ignored (can lead to social mobilisation) (also "Authority knows best")
- **Lack of trust** in the process or the communication channel
- **"Paralysis by analysis" –** overly inclusive process leads to inertia

SCOPE – MATCHING THE SCALE OF THE PROBLEM TO THE RISK MANAGEMENT STRUCTURE

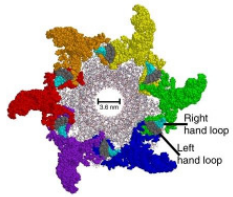
- The **International Commission for the Protection of the Rhine has an action plan on floods** (part of Rhine 2020 programme)
- The **International Commission for the Protection of the Danube River (ICPDR)** has established a long-term Action Programme for Sustainable Flood Prevention in the Danube River Basin.

SUSTAINABILITY – THE BIOFUELS DILEMMA

"The policy on biofuels is currently running ahead of the science."

UK government climate envoy John Ashton, quoted by BBC News

TRANSPARENCY – PUBLIC CONCERNS MAY CONSTRAIN THE BENEFITS OF NANOTECHNOLOGY



Source: (Purdue University)

- …about who is doing the research, and why:
  - **"I'm not looking for nanotechnology to provide me with a cleaner bath or with self-cleaning underwear**. If research was done by the State, it could seek solutions to our big problems. Industry wants only to make sales and is pushing hard."

- …about transparency
  - "To my knowledge, I have never used any of it. But the risk exists that one could know nothing about it. Or, that **someone passes off as a nanotechnology product something which is not**"

- …about the unknown and unseen
  - "We have reached a dimension where there is no sight, where we see nothing with our own eyes. And **substances with a potential to become active are being manipulated…this is like nuclear fission**

From: Les nanotechnologies en Suisse : les défis à relever sont désormais connus. Report of a « Publifocus » project by TA-Swiss, December 2006

INEQUITY – AVIAN INFLUENZA
WHO GETS THE ANTIVIRAL? WHO GETS VACCINATED?

- Health care workers?
- Government leaders?
- Children?
- The aged?
- The logistics industry?

- Essential services? Which?
  - Health care workers?
  - Water industry?
  - Energy industry?
  - Farmers?

- **If the outbreak is in another country without stocks, will Germany release its stocks to that country?**

HOW **CATEGORISING THE KNOWLEDGE** CAN HELP

- **Simple** risk problems can be managed using a '**routine-based' strategy**, such as introducing a law or regulation
- **Complex** risks may be best addressed by accessing and acting on the best available scientific expertise, aiming for a 'risk-informed' and '**robustness-focussed' strategy**
- **Uncertain** risks are better managed using 'precaution-based' and '**resilience-focussed' strategies**, to ensure the reversibility of critical decisions and to increase a system's capacity to cope with surprises
- **Ambiguous** risk problems require a '**dialogue-based' strategy** aiming to create tolerance and mutual understanding of conflicting views and values with a view to eventually reconciling them

ONE RISK CATEGORY – **COMPLEXITY**
CAN A SINGLE ORGANISATION MANAGE THE RISKS?

The European electricity grid is a critical infrastructure with multiple owners, operators and regulators.

Problems in a single location can rapidly cascade into blackouts affecting several countries and millions of users.

The grid is almost impossible to model – risk assessment is VERY difficult.

The only way risks in such a system can be managed is collaboratively by governments, regulators, industry and, yes, users.

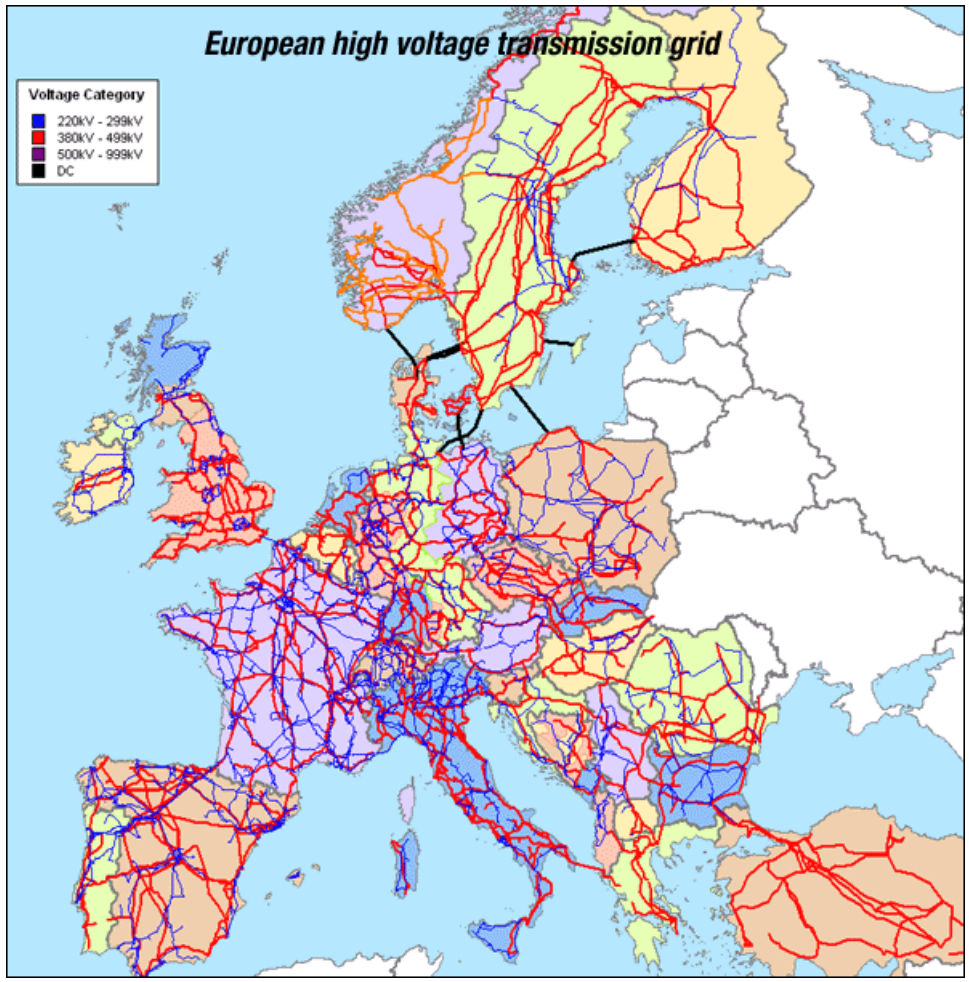
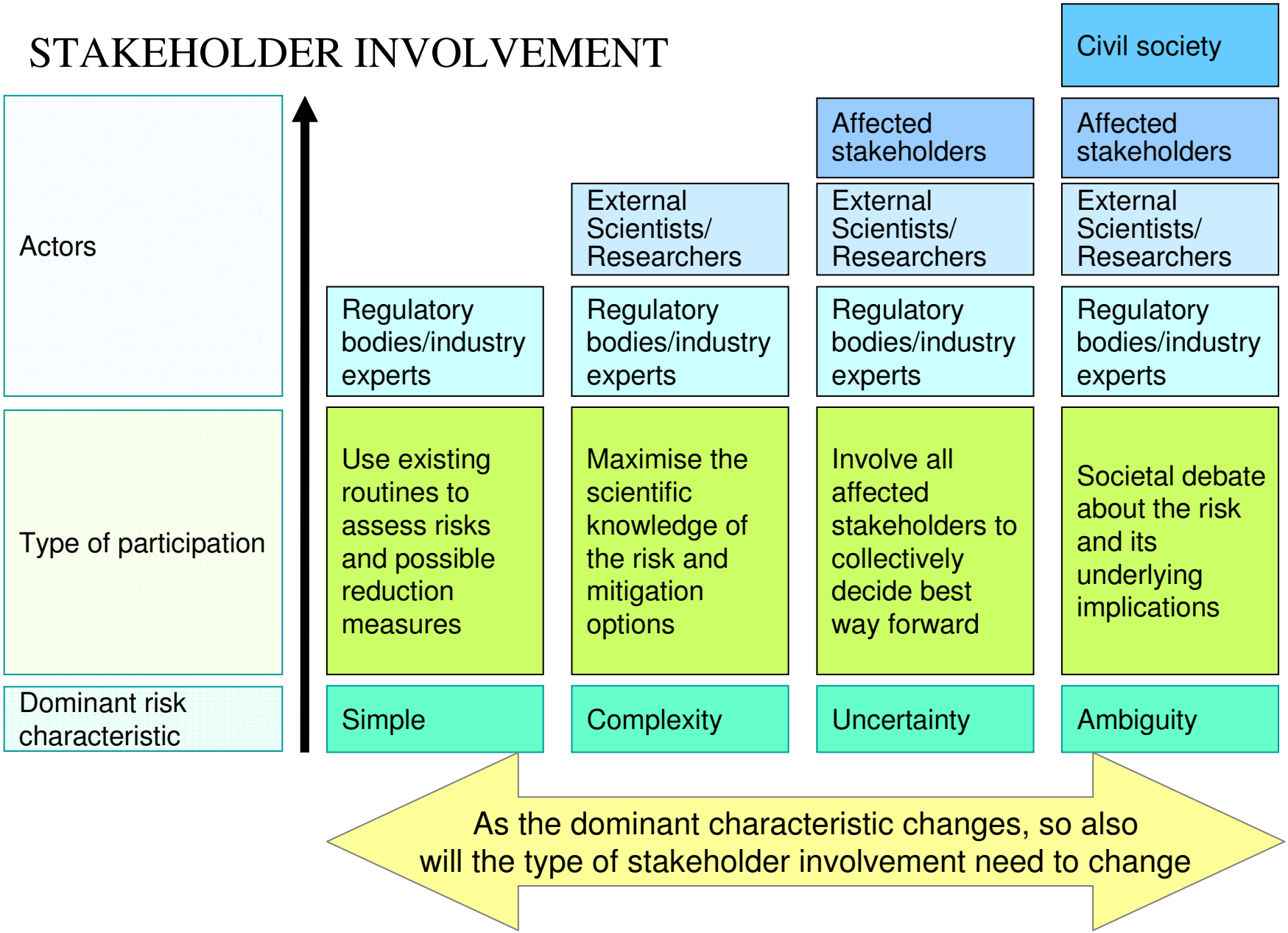


Image from website of GENI, Global Energy Network Institute

STAKEHOLDER INVOLVEMENT



COMMUNICATION – THE DEVIL IS IN THE DETAIL

“Hybrid Toyota Prius Doesn't Pass Georgia Emissions Test”

Heather Abrams, Georgia (US) Environmental Protection:
“The 2004 Toyota Prius has an issue with communicating with the analyzers. They still have to get their emissions tested out. That's a requirement under the law…They will actually run an aborted test on these vehicles to get them into the system, which is what's required under the law, and then they can get a waiver so they can still get their tag.”

Photo: Toyota; Transcript from CNN April 15 2007

CONCLUSIONS

- Good risk governance **integrates traditional risk analysis with the thorough understanding of how different stakeholders perceive the risk** (“framing” and “concern assessment”)

- Understanding and acting on **how different stakeholders frame the risk** is a key factor in the overall success of the process

- **Categorising the knowledge about the risk** as simple, complex, uncertain or ambiguous can help:
  - select a risk management strategy
  - design the process for stakeholder involvement

- Using the results of both risk assessment and concern assessment can support a **tolerability/acceptability judgement that accounts for both scientific facts and people’s perceptions**

IRGC'S RISK GOVERNANCE FRAMEWORK