

Futurs Chocs Mondiaux: des défis pour les politiques publiques et les stratégies d'entreprises

Programme de l'OCDE sur l'avenir

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OECD's Mission

To promote policies designed:

- to achieve sustainable economic growth and employment and rising standards of living in member countries while maintaining financial stability, so contributing to the development of the world economy
- to assist sound economic expansion in member countries and other countries in the process of economic development
- to contribute to growth in world trade on a multilateral, non-discriminatory basis

(Article 1 of the OECD Convention)

A Brief History

- Created after World War II as the Organisation for European Economic Co-operation to coordinate the Marshall Plan
- Transformed in 1961 into the Organisation for Economic Co-operation and Development with trans-Atlantic and then global reach
- Today the OECD has 34 member countries
- More than 70 developing and transition economies are engaged in working relationships with the OECD

Programme de l'OCDE sur l'avenir (IFP)

What is the IFP?

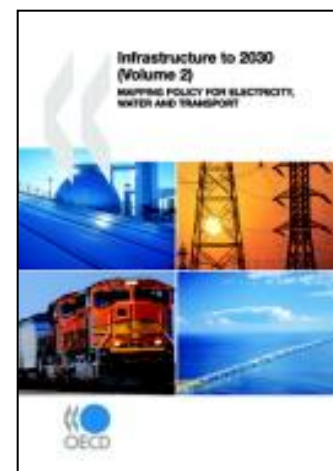
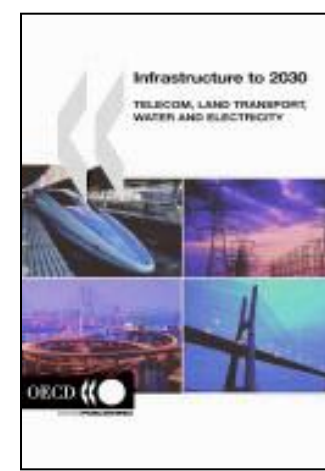
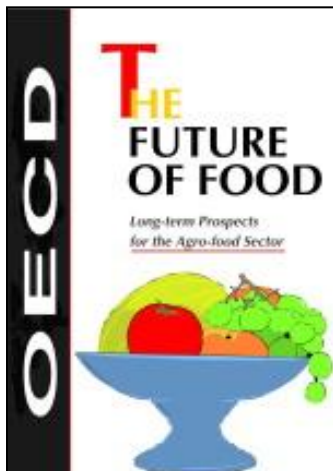
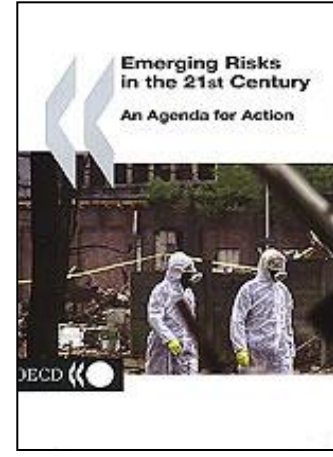
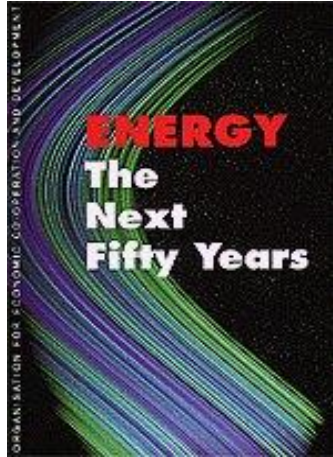
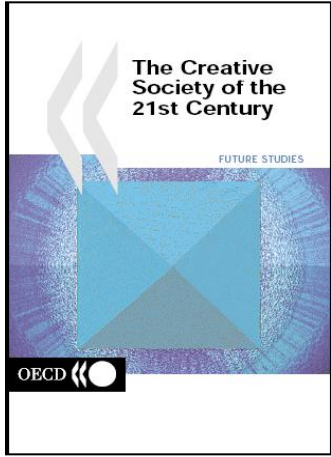
Sustaining the OECD's Pathfinder Role for Public Policy

- Advises OECD Secretariat and Member Countries
- Monitors future trends
- Identifies and explores new and emerging policy issues for OECD
- Promotes cross-directorate work within OECD
- Triggers new work in specialised parts of the Organisation

Futures Projects

- **Rationale:** Inform Member governments of trends, alert them to challenges and opportunities, compare national trends, provide decision-making tools.
- **Clients:** Member governments (mainly)
- **Methods:** Projections, simulations, scenarios..
- **Participation:** closed \longrightarrow relatively open
- **Dissemination:** inform Committees, presentations in capitals and international fora, OECD publications, internet...

Recent Outputs



Future Global Shocks – the Project

- Aims to generate a set of **policy options** for OECD governments to enhance the capacity to identify, anticipate, control, contain or mitigate large scale disasters or shocks to economy and society in the next decade or so.
- Shocks can also provide **windows of opportunity** for progress and should not just be associated with negative consequences.

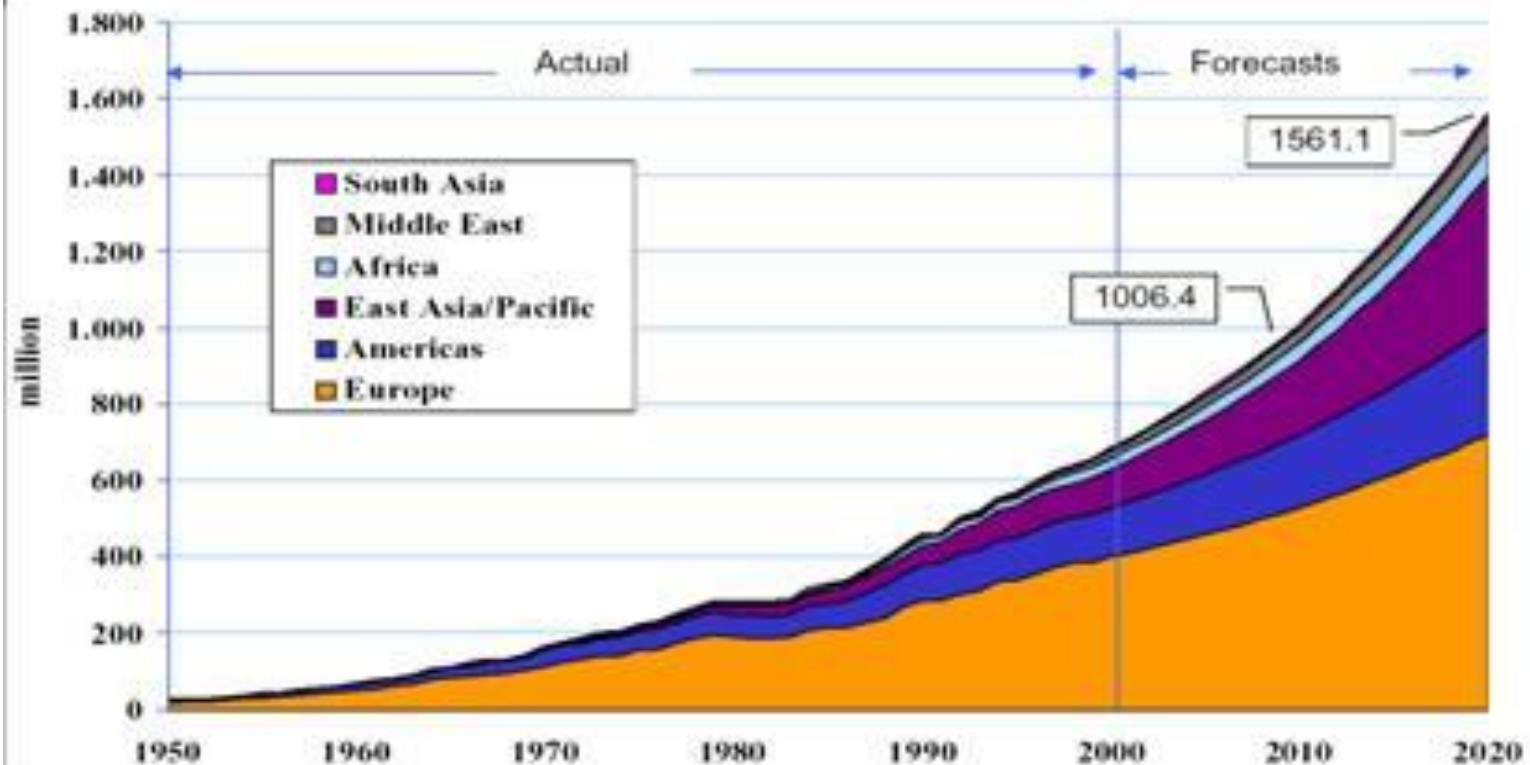
A world in which extreme events, and numerous stresses to systems, appear to have become daily routine poses specific challenges for risk management in the public and private sector.

Key trends can interact and intertwine

- growing inter-dependencies within economic, social, environmental spheres;
- seamless interconnectedness;
- increasing complexity of systems; and
- increased concentration of assets and population...

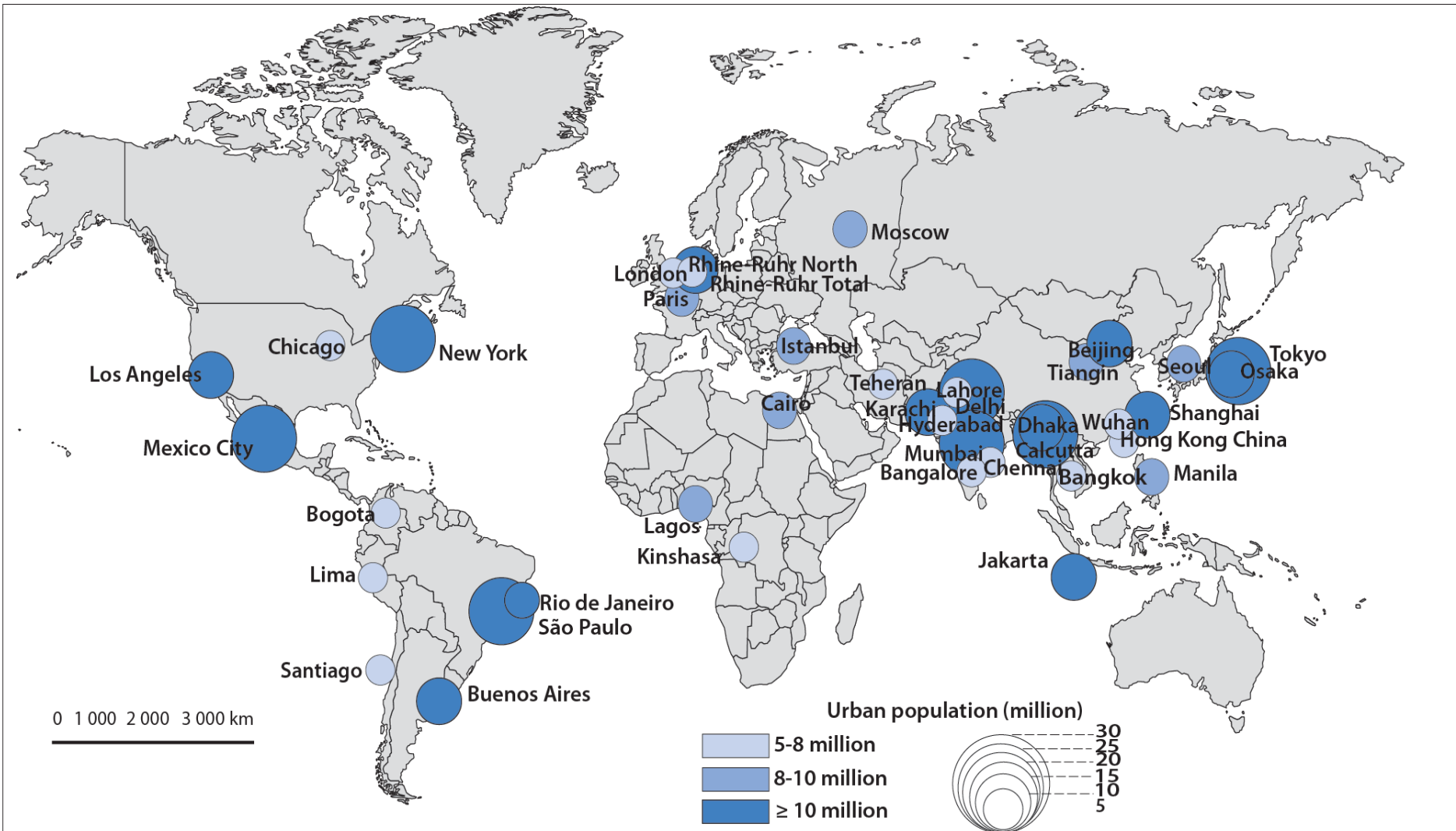
to form a context conducive to (global) large scale disasters.

Projections of international tourist arrivals to 2020

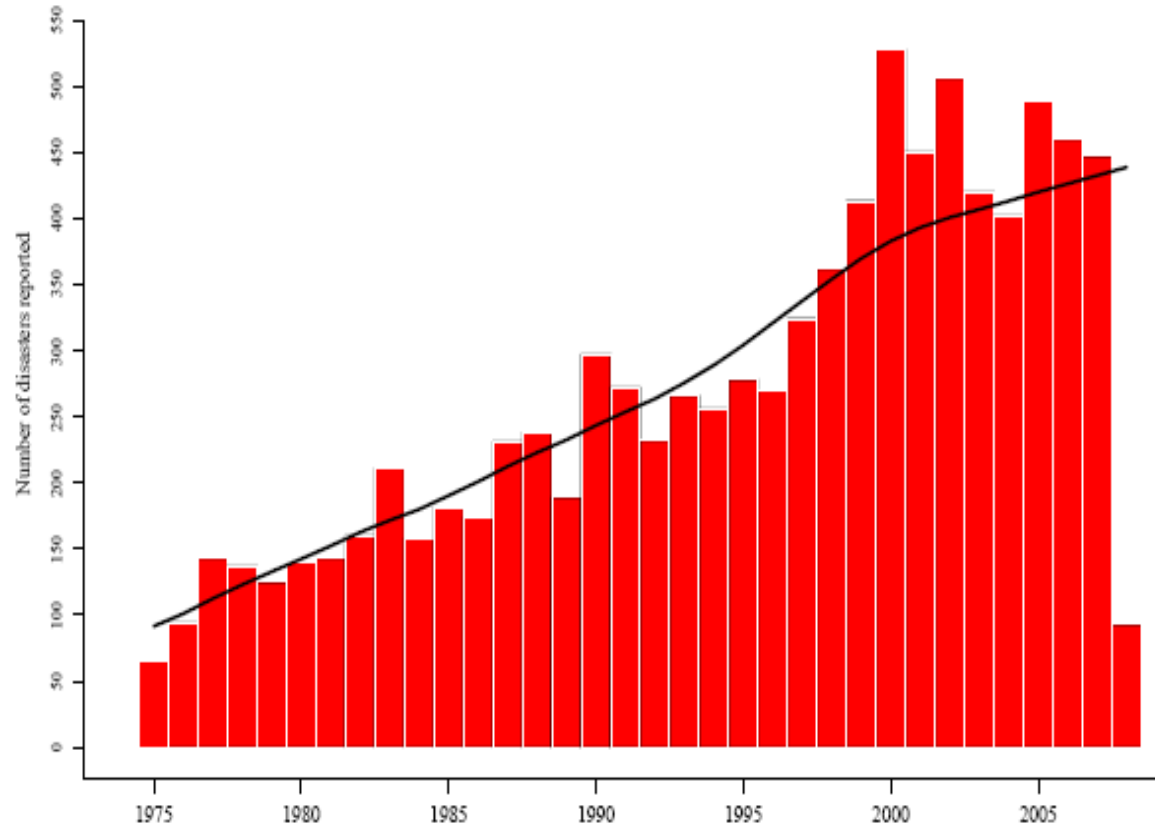


Source: World Tourism Organization ¹⁰

Population concentrations

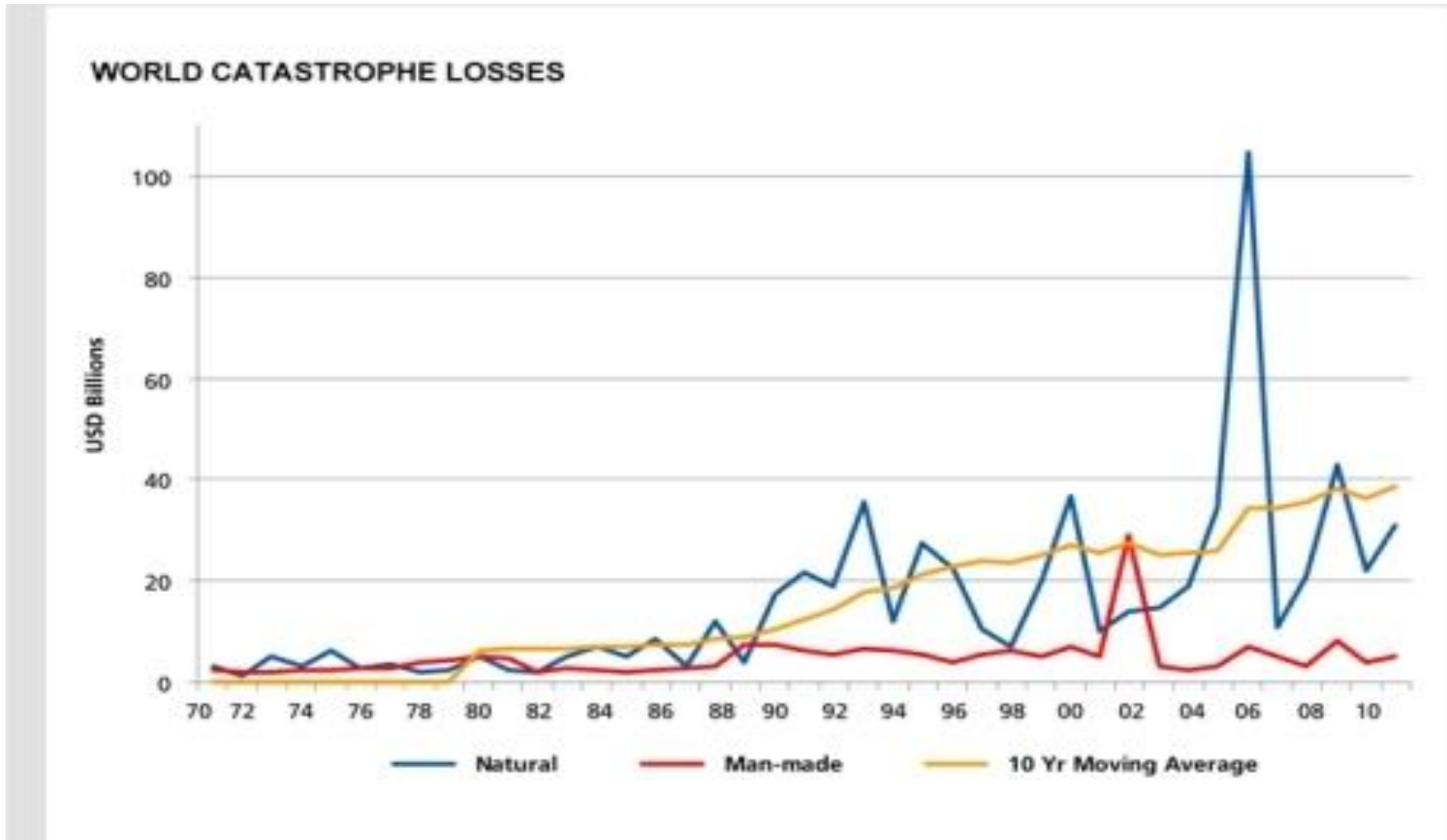


Natural Disasters Frequency



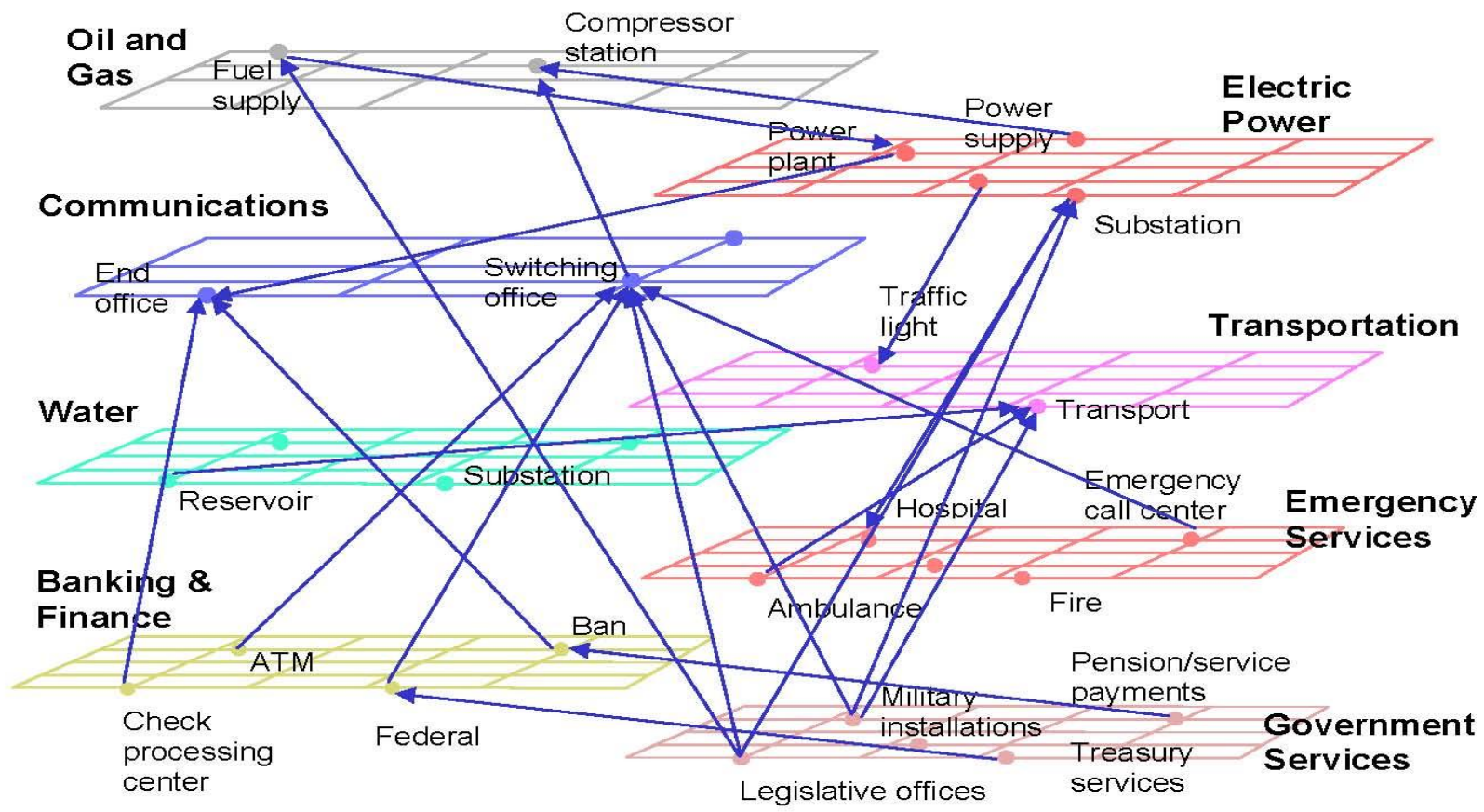
Source: Centre for Research on the Epidemiology of Disasters

Disaster Costs Rising



Source: Swiss Re, Guy Carpenter & Company, LLC

Critical infrastructure interconnected



Supply chains have become complex causing challenges for risk management

Supplier

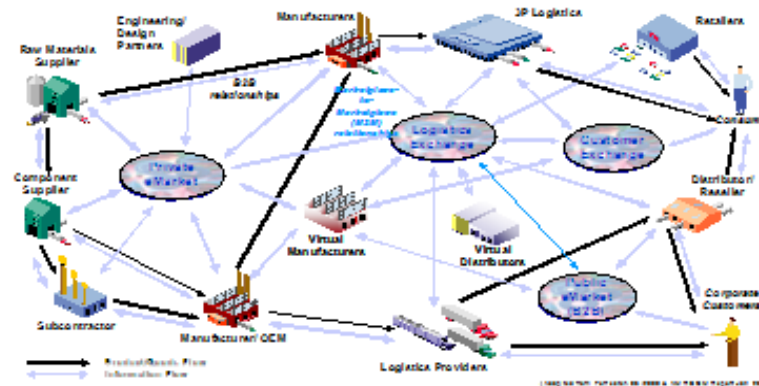
- Global sourcing
- Suppliers with 50% to 100% revenue from same OEM*
- Move to outsourced manufacturing

© Zurich Insurance Company

* Original Equipment Manufacturer

Environment

- Geopolitical instability
- Natural disasters
- Technology security



Customer

- Changing customer tastes
- Volatile demand patterns
- Customers pricing power

Manufacturer

- Global manufacturing and capacity constraints
- Distributed information
- Increased Product Complexity

Source: Zurich Financial Services

Process:

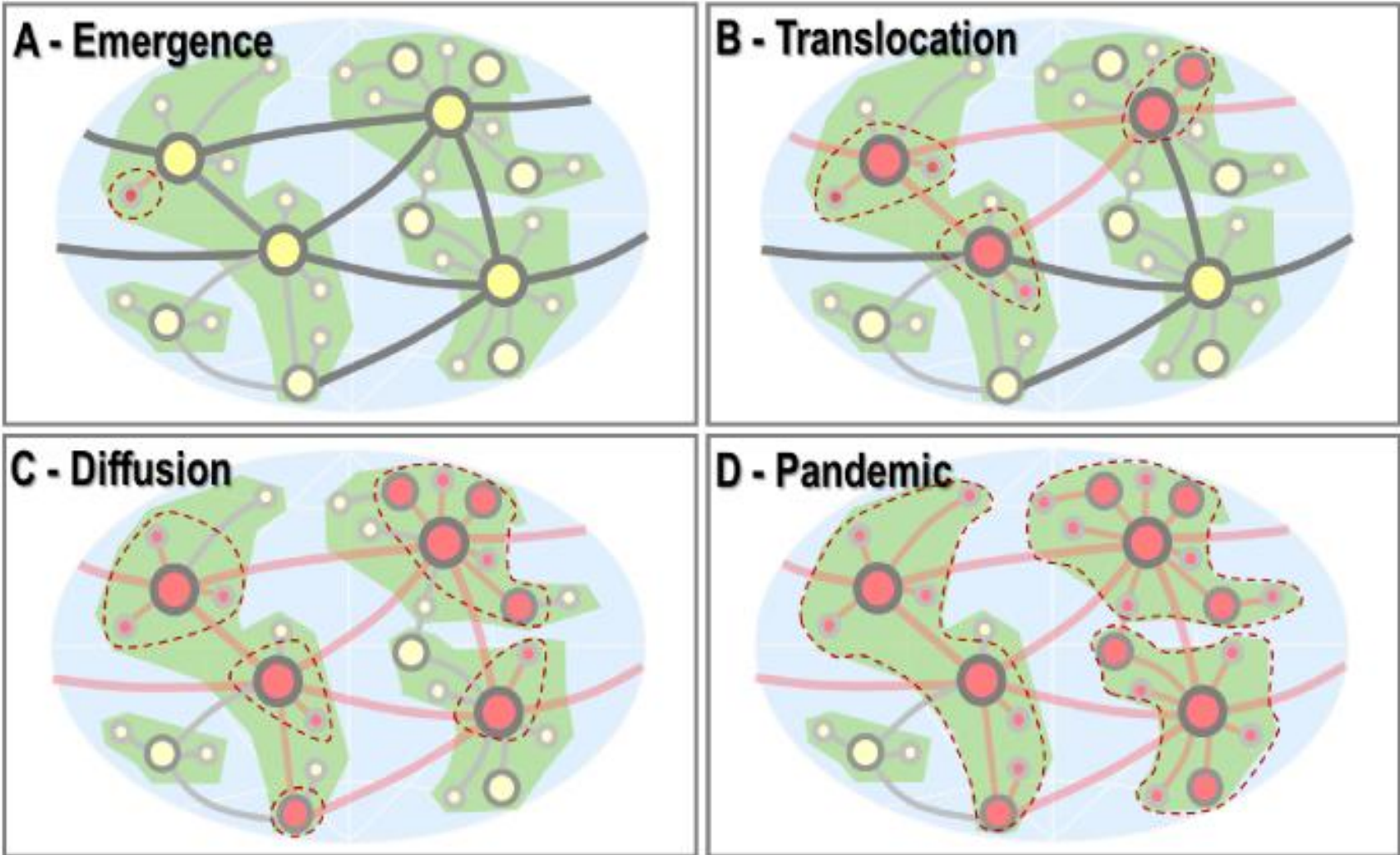
A sample of 5 case studies chosen out of 25-35 potential threats:

- Pandemics
- Financial crisis
- Cybersecurity
- Solar storms
- Social unrest

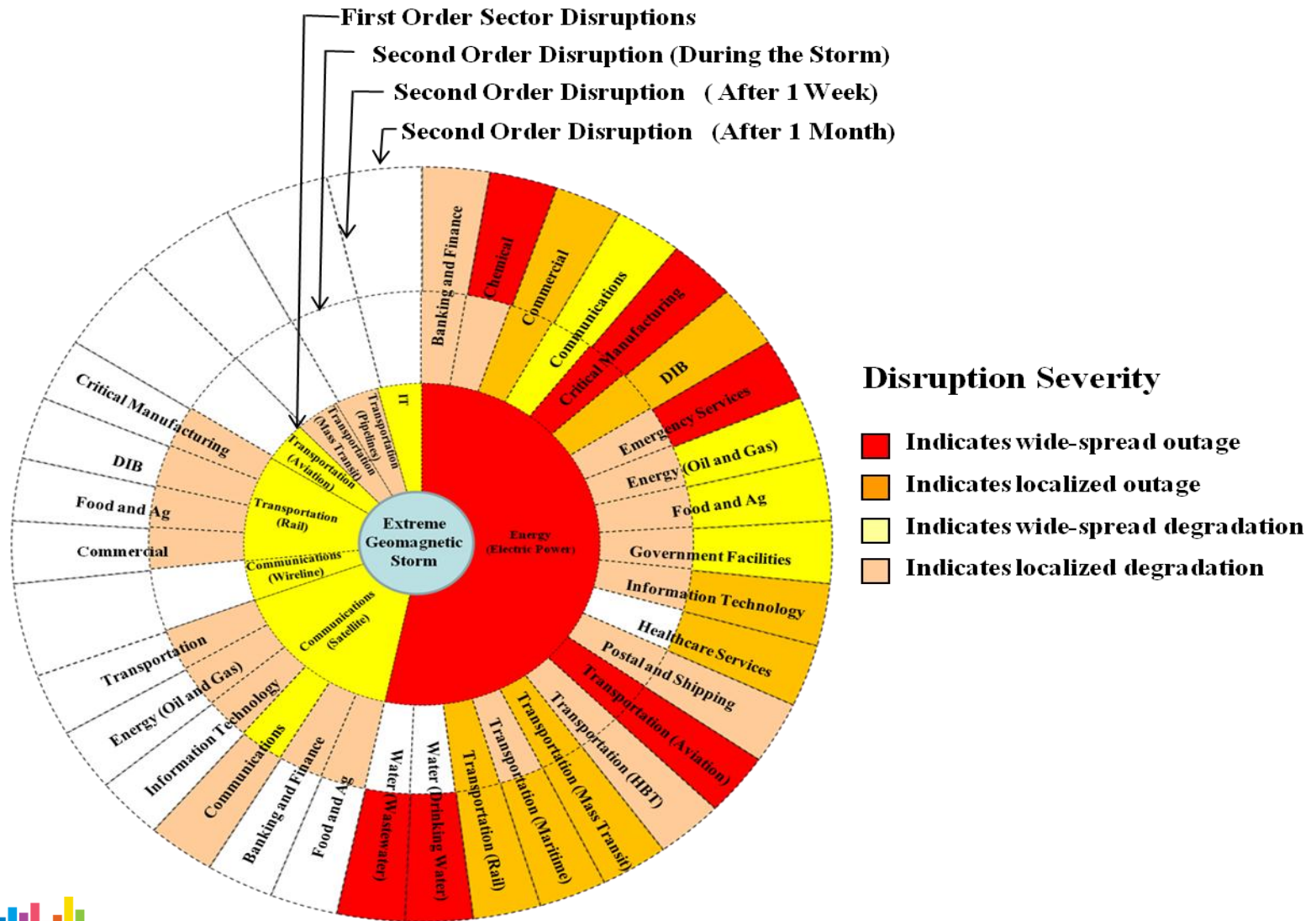
Scope:

- propagation of local to global shocks
- rapid onset
- secondary effects
- what can we learn from complexity theory

Pandemic propagation



Geomagnetic storms: 2nd order effects



Volcanic ash cloud over European air space

Key:  All flights canceled  Some flights operating  Open; only flights to or from affected areas canceled



Source: Jørgen Brandt, Senior Scientist, National Environmental Research Institute at Aarhus University, Denmark

Lessons learned (1)

1. Global shocks are of a different nature as opposed to large scale disasters...
2. Likelihood of more frequency in 21st century but to occur you need a set of unusual circumstances (propagation is not so easy, robustness can be better than you think..)
3. High premium on improving international cooperation:
 1. First, improved national and international surveillance and situational awareness are crucial
 2. Second, more investment and maintenance on databases and models are needed
 3. Third, “diversity” again becomes a key principle (OECD, 2003, 2011)

Lessons learned (2)

4. A premium could be put on the building of « reserves », buffer inventories of parts, additional peak capacity (of course at a cost):
 - Private sector and financial analysts might be ready to accept some extra cost
 - Public sector, regulators, safety agencies might be willing to « incentivize »
 - Transfer of risks: insurance mechanisms
5. Supplies of rare or unavailable resources (drugs for orphan diseases, vaccines, surveillance agencies, models.. ..) need special attention

Implications possibles pour le secteur public:

- La « surveillance »: un élément clé à renforcer (24/24) nationalement et internationalement
- La « surveillance » devrait s'accompagner de moyens d'action eux aussi 24/24 dans le cas des secteurs d'importance vitale
- La promotion de la diversité devrait aussi recevoir des moyens (régulation, budgets)

Implications possibles pour le secteur privé:

- Le « business plan » doit incorporer le risque de chocs (« stress test »)
- Rôle possible pour un CRO, un Comité des risques au CA
- Jouer le jeu de la transparence avec les autorités (« incident database », surveillance 24/24 partagée)
- Renforcement de l'obligation de faire (Directive CE, Solvabilité 2..)

Questions:

- Jusqu'à quel point votre secteur serait perturbé par un « choc » mondial ?
- Peut-on s'affranchir des conséquences ? Comment ?
- La « surveillance » est-elle la bonne réponse ?
- Quel est le prix à payer pour les mesures de précaution ? Qui va payer ?

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Thank you.

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<http://www.oecd.org/futures/risk>

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