

City Resilience to Crisis Situations

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Poverty is not an accident.
Like slavery and apartheid,
it is man-made and
can be removed by
the actions of
human beings.



- Nelson Mandela

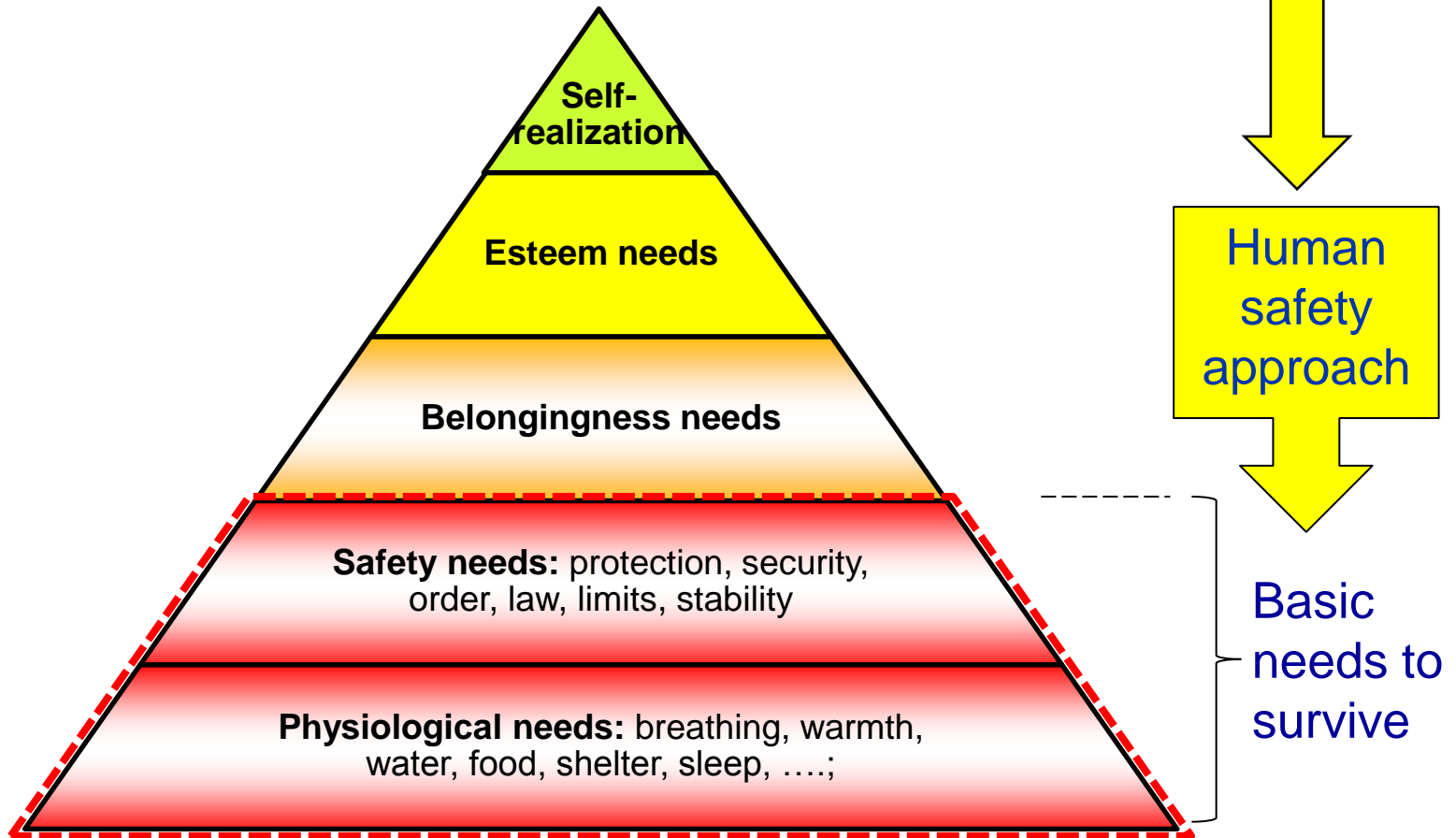
Two thirds of the world's population will live in cities by 2030

- **Question:** Why should we provide disaster risk reduction?
- **Answer:** Why not, if the community can collapse within 5 days?



- **To be or not to be (prepared)?**

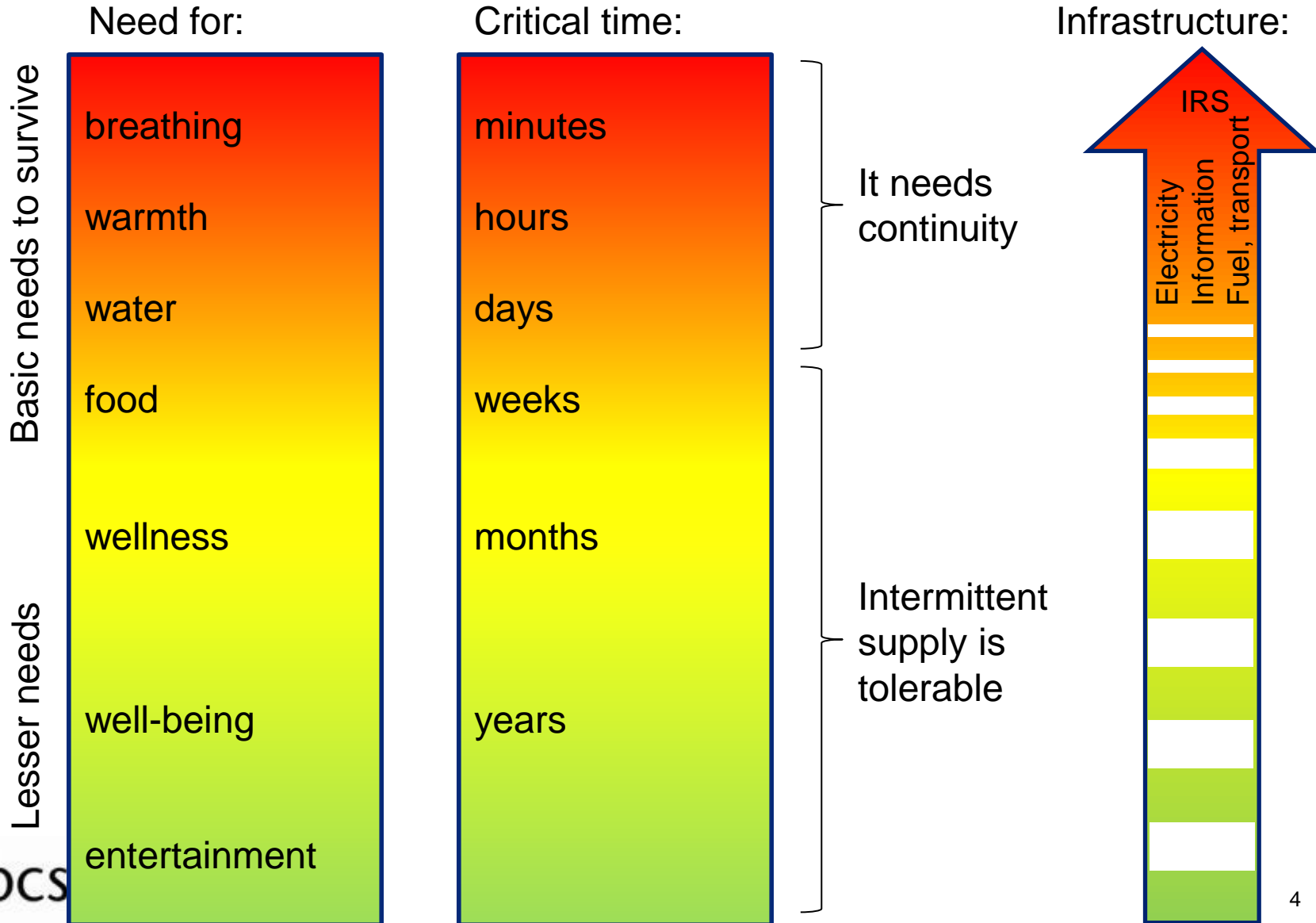
City should be a place where people can meet their needs also during the crisis
Smart solution can reduce the risk



Human needs by Maslow

Priority of needs according resilience of human body

IRS – Integrated Rescue Services



Human settlements has changed

From medieval citadels ... To open metropolises



**Closed, self-sufficient,
capable survive the siege**



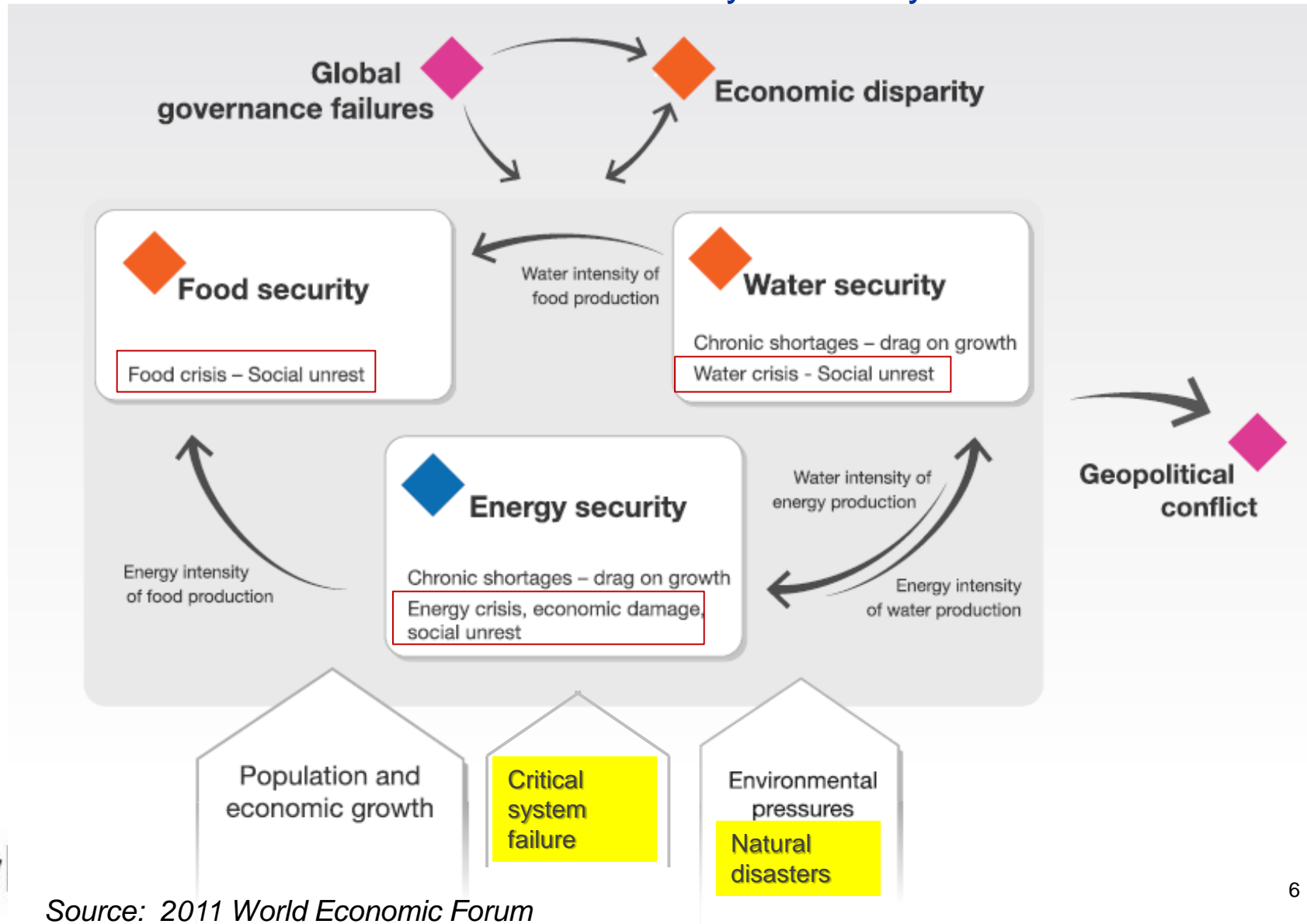
**Open, unable survive long-lasting
cut-off from infrastructure**

**Resistance? Dependency? Complexity? Vulnerability?
We live permanently 5 days before state of emergency!**

City can be hurt
by infrastructure
failure (caused
by extreme
weather, attack...

Lack of water, food, energy leads to social unrest

Natural disasters could be intensified by critical system failure

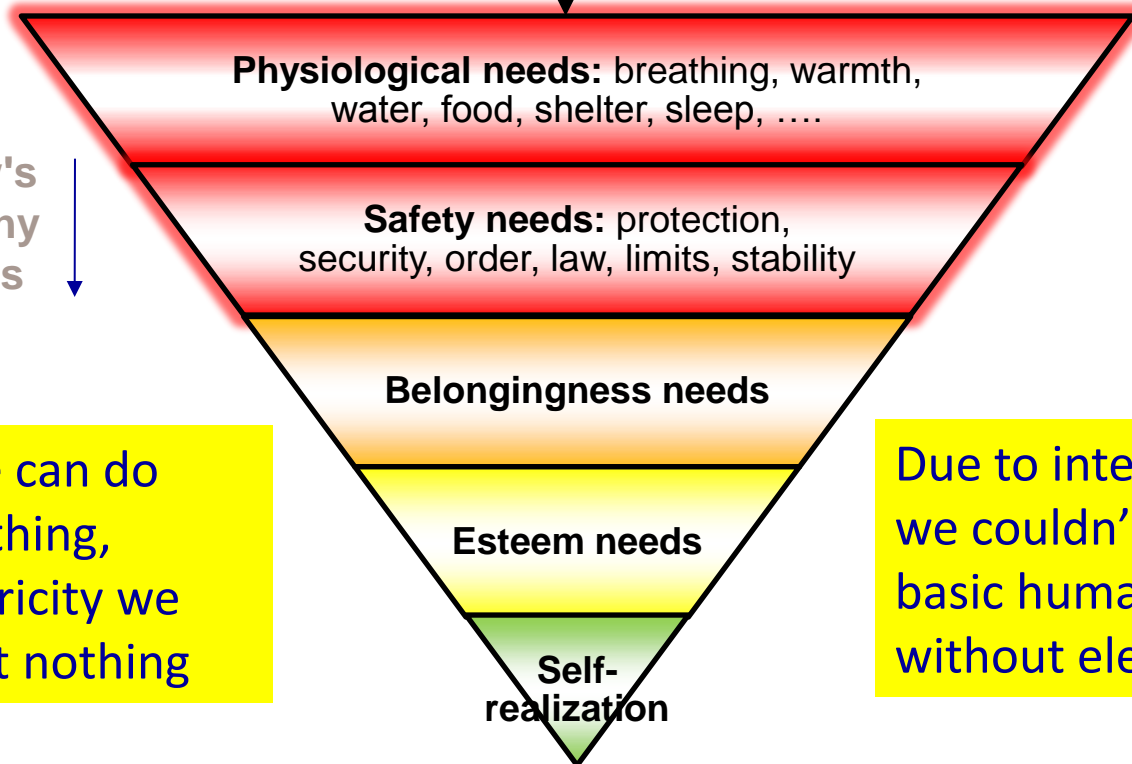


Source: 2011 World Economic Forum

Our Achilles heel: Energy & Water & Food security is sword of Damocles over our cities



Energy, Water, Food



Maslow's hierarchy of needs ↓

In present we can do almost everything, without electricity we can do almost nothing

Due to interdependency we couldn't ensure basic human needs without electricity

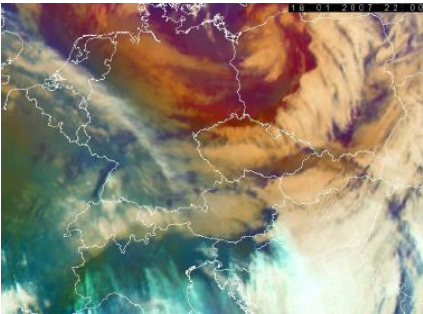


Various disasters bring us to various problems



Technical failure, ...

hours - days



Flood, earthquake, ...

days - weeks



Social unrest, conflicts,

weeks - months



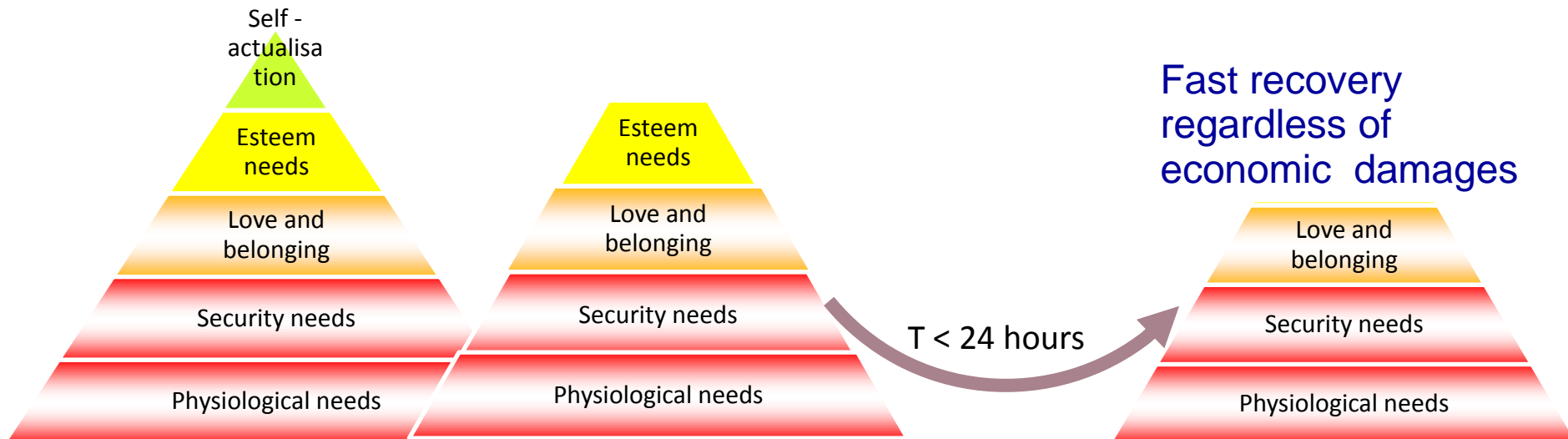
Vulnerability of society during short-term disaster (< 24 hours)

Standard condition

Alert condition

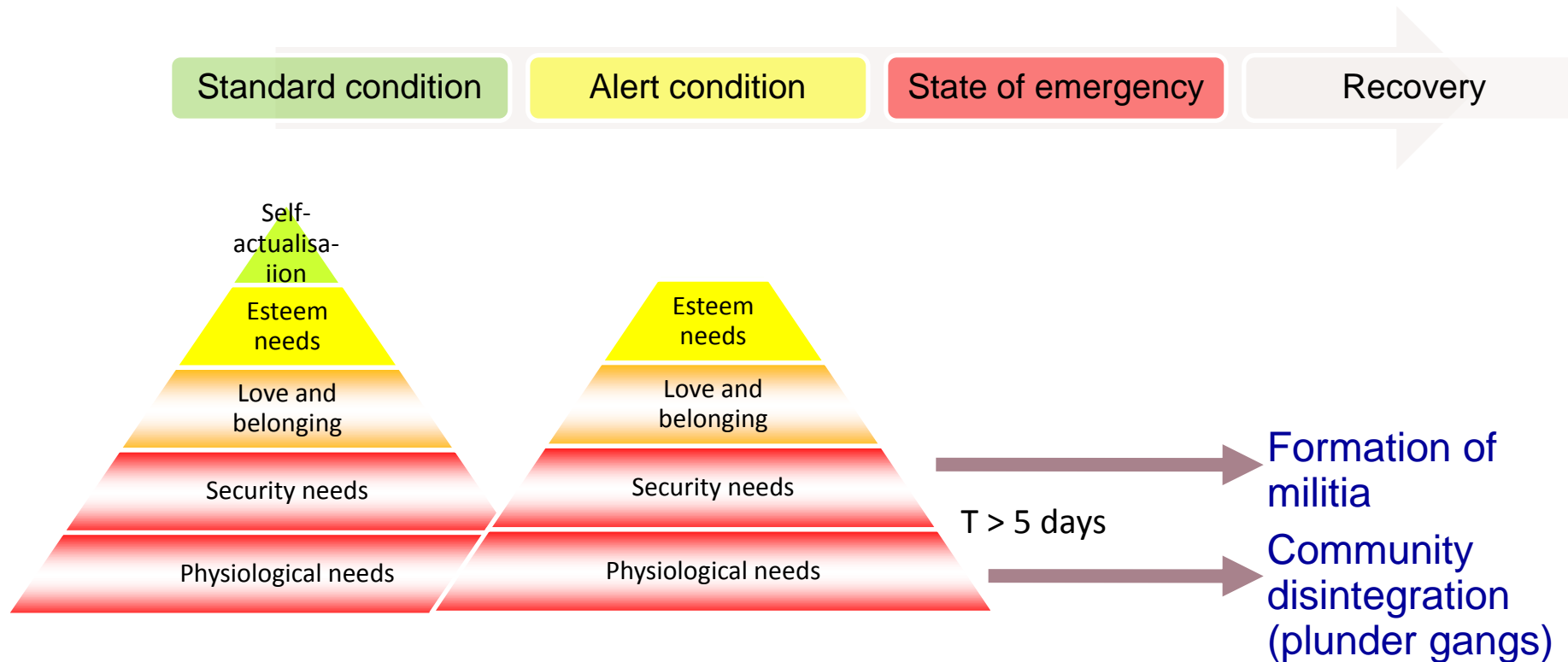
State of emergency

Recovery



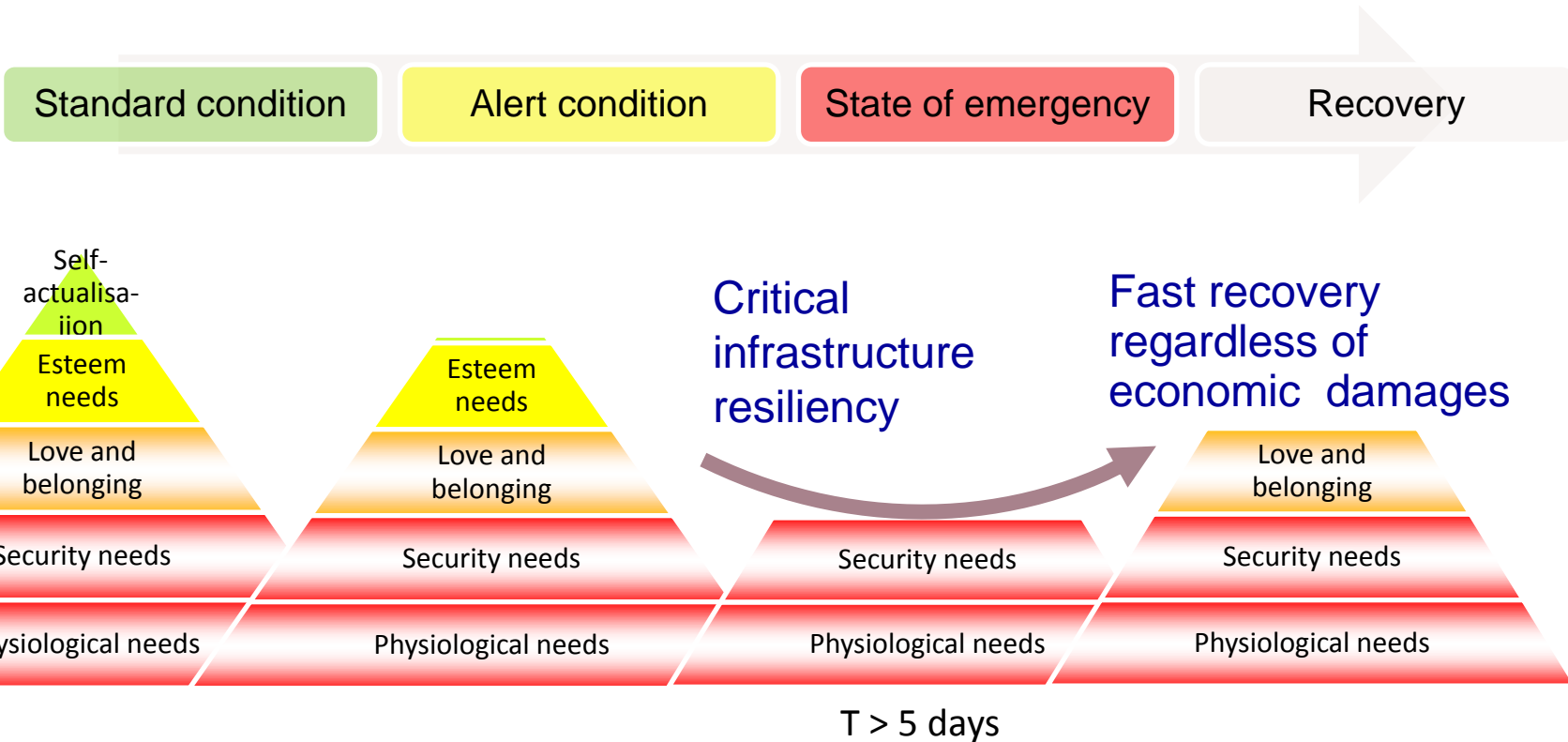
Blackouts: USA 2003, Italy 2003, ...

Experience from vulnerability of society by long-term disaster (> 5 days)



Experience: New Orleans (Katrina 2005), Haiti and Chile (earthquake 2010),...

Czech approach to Resilient City: preservation of basic needs in all cases



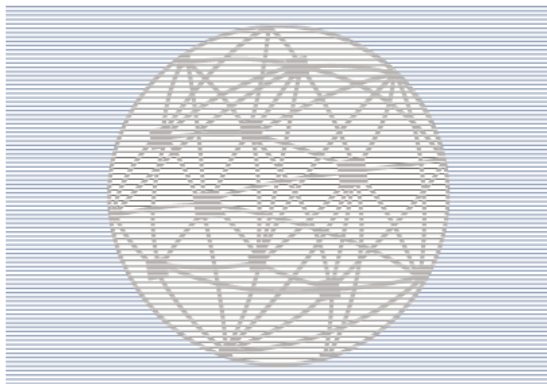
World Economic Forum Annual Meeting 2014 (Davos, Switzerland, 22-25.1.2014)



Insight Report

Global Risks 2014 Ninth Edition

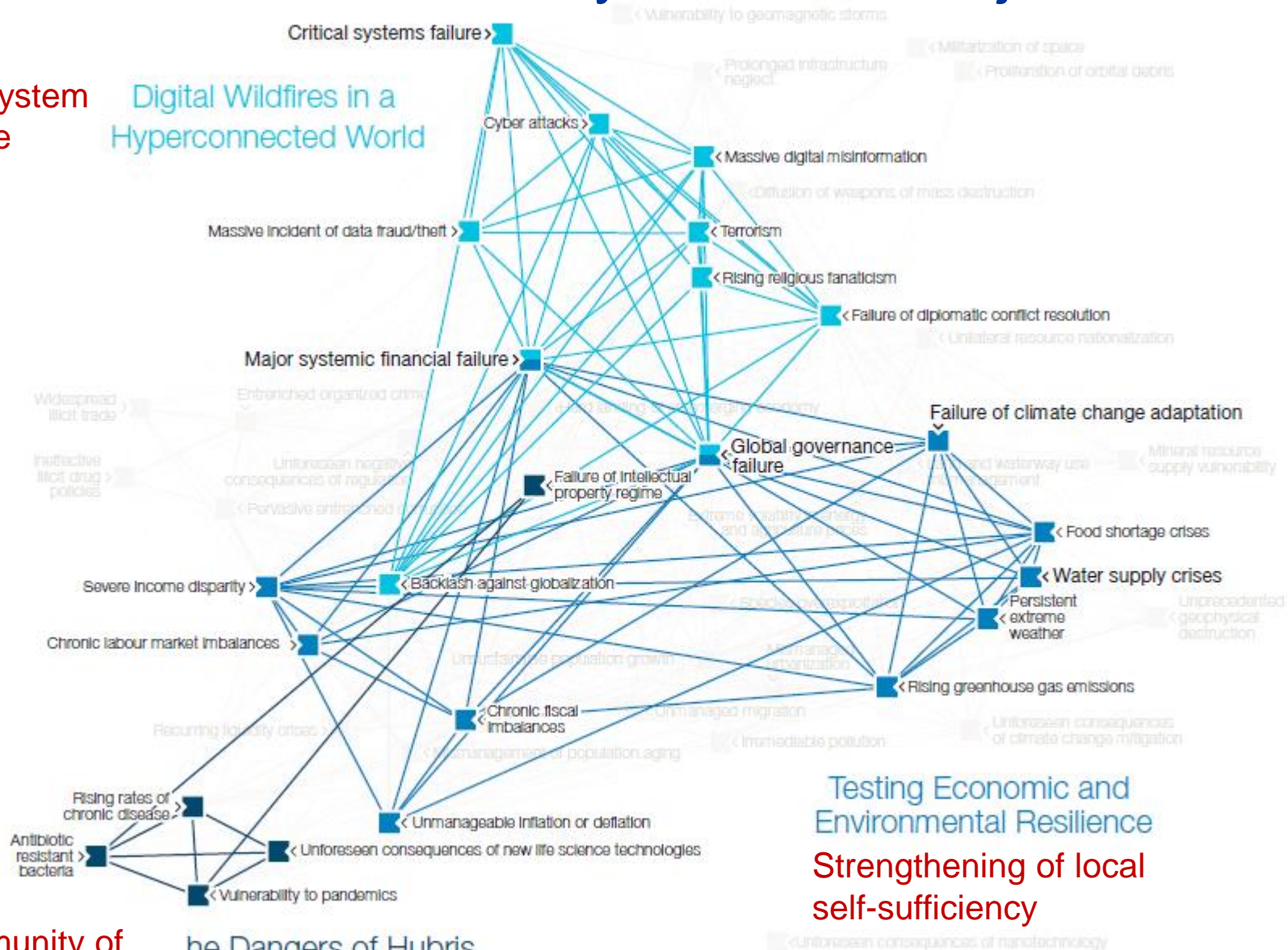
- Today, we live in the most complex, interdependent and interconnected era in human history
- We face two main challenges:
 - necessary adaptive changes related to climate change
 - transformational opportunities associated with the finiteness of resources
- This new leadership requires to master strategic agility and to build resilience to risk



New task for City Planning: „Smart Life“ = ability to survive major risks

Critical system
resilience

Digital Wildfires in a
Hyperconnected World



The Dangers of Hubris
on Human Health

Source: 2013 World Economic Forum

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