

Conference  
Association for Federal Enterprise Risk  
Management

George Mason University  
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**Please give more attention to  
uncertainty  
(too much risk management is risky)**

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# A three course meal

## **Starters:**

Context and definitions

## **Main course:**

*The work we do is organizing.* Uncertainty rules!  
Exploring three connected sets of distinctions

- Risk and uncertainty
- Tame and wicked problems
- Technical and adaptive work

## **Just desserts:**

How to deal with uncertainty

For starters: The age of risk management

Dealing with the consequences of  
technologies, policies, and practices of  
this age  
Definitions

# What do these have in common?



## Uncertainties and insecurities of this age

- Proliferation of nuclear weapons (Cold War)
- Widespread access to powerful conventional weapons (international arms industry)
- Spread of drug-resistant viruses (*promiscuous* use of antibiotics in the food chain)
- 'Alien' invasions (massive inequalities)
- Concern about genetically modified foods (big corporations controlling agriculture going after profits)
- Financial risk management by banks (desire to reap huge profits)
- Concerns about privacy, cyber insecurity (technologies we can't control)

## The 'risk society'

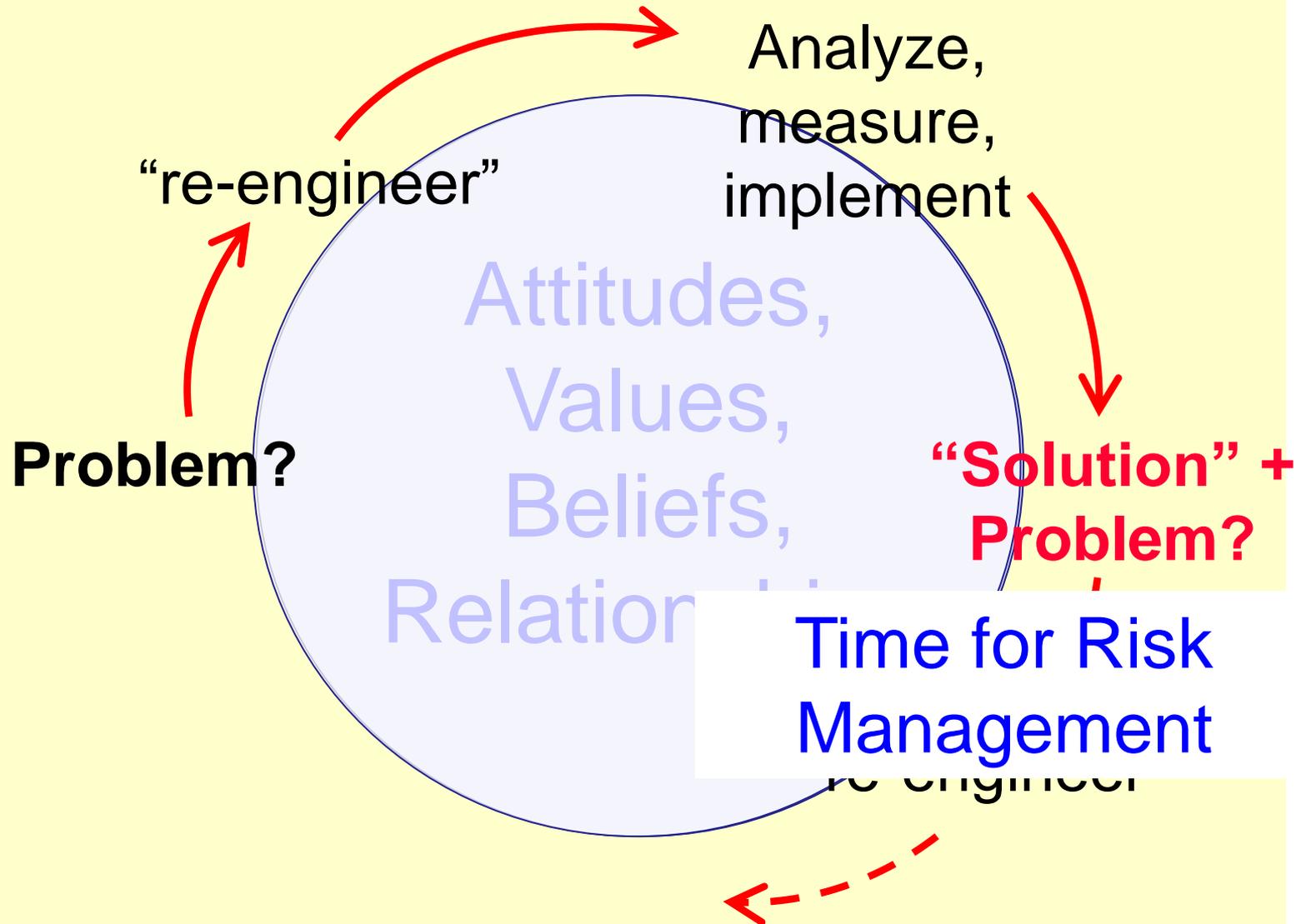
Anthony Giddens (British sociologist)

A risk society is "a society increasingly preoccupied with the future (and also with safety), which generates the notion of risk."

Ulrich Beck (German sociologist)

"a systematic way of dealing with hazards and insecurities induced and introduced by **modernization** itself"

# Western ('Enlightenment') mindset



## OED definition of risk

"(Exposure to) the possibility of loss, injury, or other adverse or unwelcome circumstance; a chance or situation involving such a possibility."

# Definitions of risk from Wikipedia

- Risk is **an uncertain event or condition** that, if it occurs, has an effect on at least one [project] objective.
- The **probability** of something happening **multiplied by** the resulting cost or benefit if it does. (More properly known as the 'Expectation Value' or 'Risk Factor,' it is used to compare levels of risk)
- The **probability or threat of quantifiable damage**, injury, liability, loss, or any other negative occurrence that is caused by external or internal vulnerabilities, and that may be avoided through preemptive action.
- "The ISO 31000 (2009) / ISO Guide 73:2002 definition of risk is the **'effect of uncertainty on objectives'**."

## AFERM'S Definition of ERM

“Enterprise Risk Management (ERM) is a discipline that addresses *the full spectrum of an organization’s risks*, including challenges and opportunities, and integrates them into an *enterprise-wide, strategically-aligned portfolio view*. ERM *contributes to improved decision-making* and supports the achievement of an organization’s mission, goals, and objectives.”

# Eliminating risk. Simple. Really?

## THE THEORY OF HOW THE FINANCIAL SYSTEM CREATED AAA-RATED ASSETS OUT OF SUBPRIME MORTGAGES

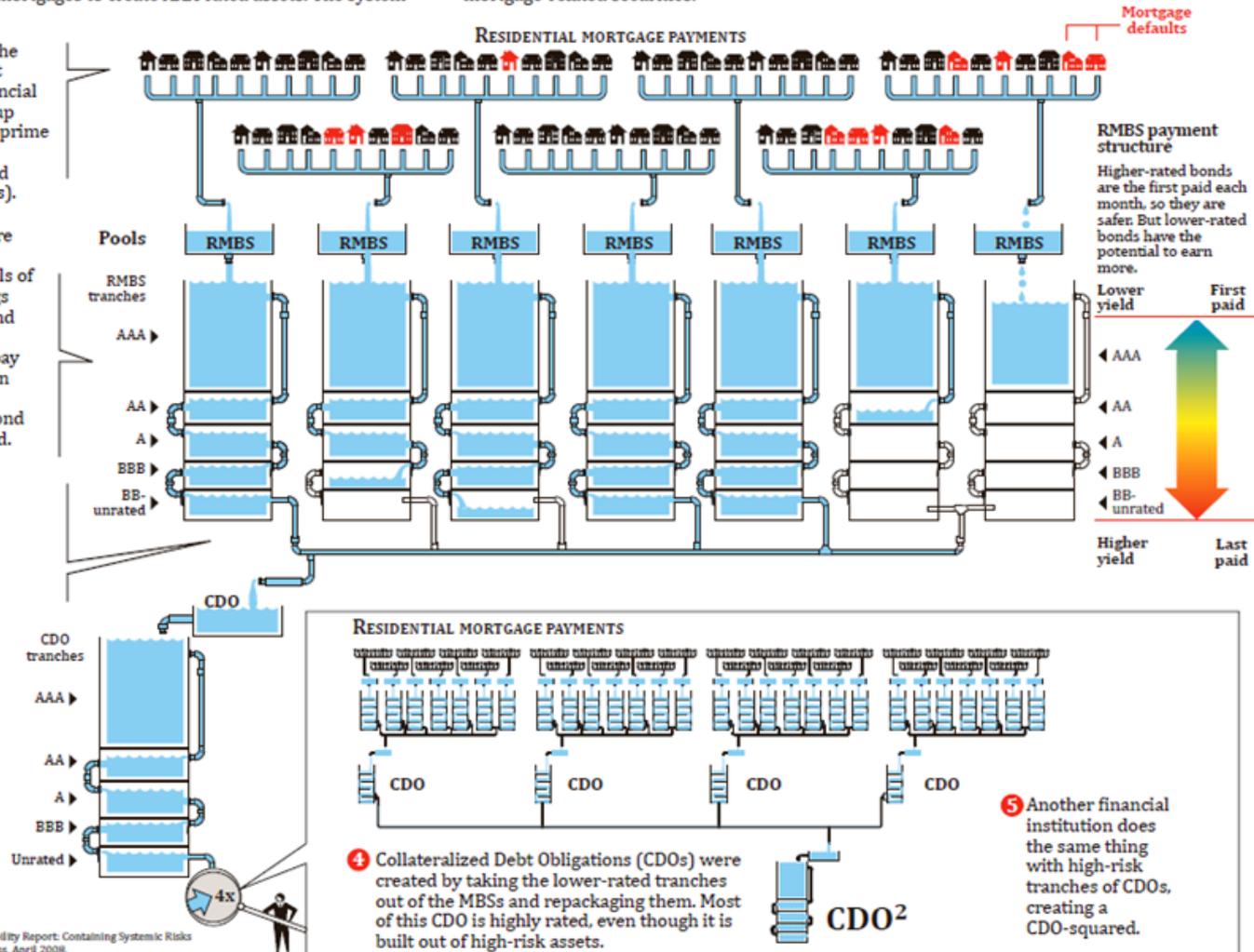
In the financial system, AAA-rated assets are the most valuable because they are the safest for investors and the easiest to sell. Financial institutions packaged and re-packaged securities built on high-risk subprime mortgages to create AAA-rated assets. The system

worked as long as mortgages all over the country and of all different characteristics didn't default all at once. When homeowners all over the country defaulted, there was not enough money to pay off all the mortgage-related securities.

1 People all over the country take out mortgages. Financial institutions group hundreds of subprime mortgages into Mortgage Backed Securities (MBS).

2 The securities are grouped into tranches by levels of risk and earnings potential for bond holders. When everybody can pay their mortgage in full each month, each group of bond holders gets paid.

3 The mortgage payments are collected by a financial institution and payments distributed to bond holders. Higher rated tranches are paid first. When monthly mortgage payments are not made, payments may not reach holders of lower-rated tranches.



Source: IMF, Global Financial Stability Report: Containing Systemic Risks and Restoring Financial Soundness, April 2008.

# The main course:

## Two worlds that don't meet

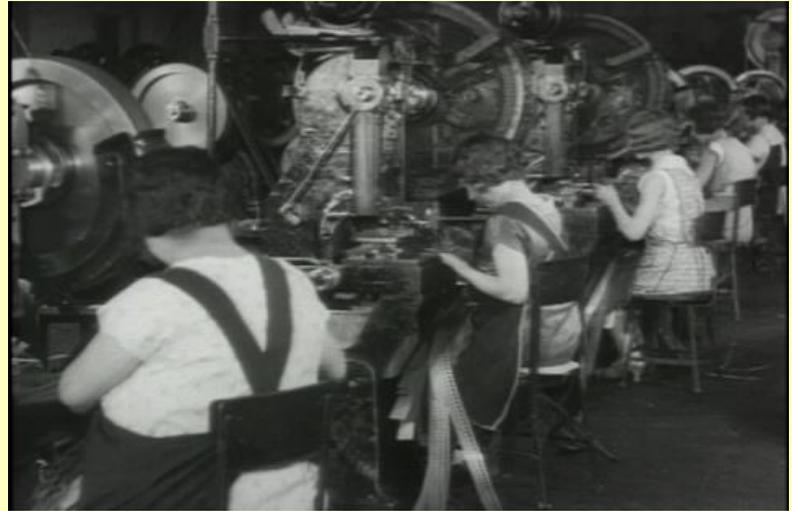
- Risk and Uncertainty
- Tame and wicked problems
- Technical and adaptive work

## Knight: risk and uncertainty

"... Uncertainty must be taken in a sense radically distinct from the familiar notion of Risk, from which it has never been properly separated.... "[R]isk" means in some cases a quantity susceptible of measurement, while at other times it is something distinctly ...[different]; .... It will appear that a measurable uncertainty, or "risk" proper, as we shall use the term, is so ... different from an unmeasurable one that it is not ... uncertainty at all. We ... accordingly restrict the term "uncertainty" to cases of the non-quantitative type."

Frank H. Knight (1921), *Risk, Uncertainty and Profit*, Houghton Mifflin. 19.

# “Old” factory-work – tame/technical problems & risk



# “New” knowledge-work – wicked problems & uncertainty



## Some characteristics of tame problems

### Example: fixing a car's engine

- These problems are independent of what people feel, believe, value. They are 'technical' and are 'out there in the world'
- You have a blueprint defining the 'whole'
- You can identify all the elements of the problem
- You can establish a set of rules for working through options that will enable you to identify the problem.
- It is generally possible and practical to estimate the likelihood of events occurring.

# Some characteristics of wicked problems

## Preventing a cyber attack. Protecting intellectual property

- There is no definitive formulation of the problem
- Every solution is a 'one-shot' operation; because there is no opportunity to learn by trial and error, every attempt counts significantly
- Every wicked problem is essentially unique
- Every wicked problem can be considered a symptom of another problem
- The issues are a source of uncertainty. They have to do with people, their attitudes and actions. We can and must think about these problems and deal with them. But how? Not by 'managing' in the conventional sense.

# Organizing is adaptive work

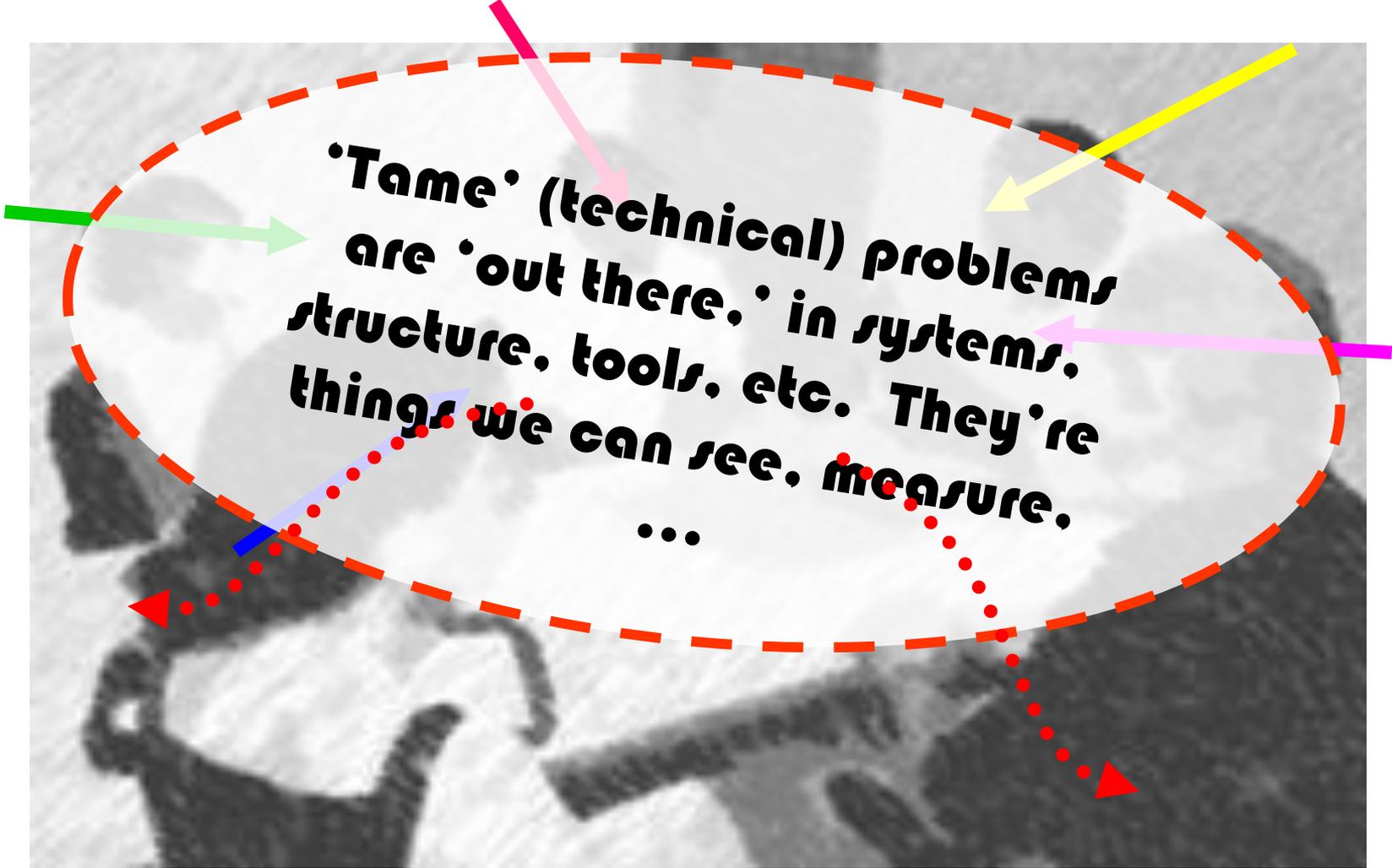
- Ron Heifetz (*Leadership on the Line, Leadership without Easy Answers*) makes an important distinction between ‘**technical work**’ and ‘**adaptive work**’.
- Technical work, as the name suggests, is about solving technical (or tame) problems. You can leave this up to experts.
- Adaptive work, on the other hand, involves **changing** attitudes, values, relationships...
- The only people who can do this work are those directly involved since it’s their attitudes, relationships that need to be worked on.
- Organizing is ‘*adaptive work*’: **messy, ambiguous, uncertain.**

# Why organizing is messy, ambiguous, uncertain

- *You have the 'problem' itself (which may also be technically complex).* Little is clear-cut. It takes considerable, focused effort/commitment to get to 'what', 'when,', 'how,' with 'whom'.
- *And you have the complex social dynamics of the work.* Work and organizing is highly social. People interact ('network'), making meaning together.
- *There are breakdowns in both areas.* E.g. Groups work on different problems and interpersonal dynamics – relationships (power, authority) and attitudes (commitment, responsibility) – create problems.

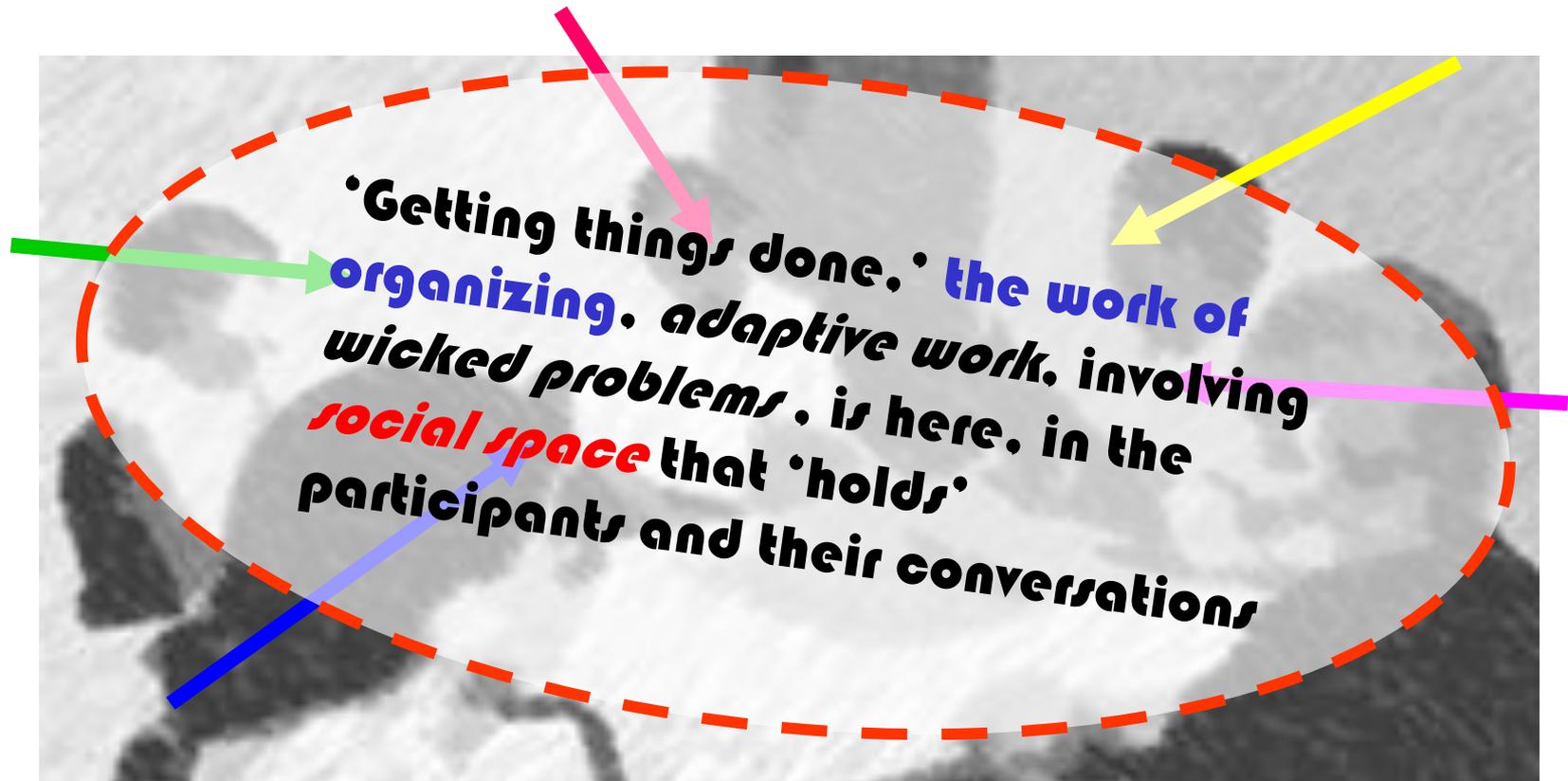
**How is risk management addressing these issues?**

## Tame vs. wicked problems



**'Tame' (technical) problems  
are 'out there,' in systems,  
structure, tools, etc. They're  
things we can see, measure,  
...**

## Where are the problems? In the 'space between'



**The problems belong to the group.** They're **both created and resolved collectively**, in their interaction (meaning making), in the process of asking questions, making proposals, taking decisions.

# Just Desserts: How to deal with uncertainty

# Who is responsible?

- Tameness' justifies high-control, top-down ways of organizing – giving the problem including risk management, to experts.
- Wickedness' calls for participation – for having 'everyone in the room'.
- The problems aren't *my* problem or *your* problem. They are *ours*. Until we're *aligned* – agreed about what we're doing and why – we don't get things done.
- This calls for us to rethink our ideas about 'risk management'. What the risks are and who is responsible for handling them.

## Ends and means don't match

- *We should try to do the best we can as we get things done in an uncertain world.*
- Most ERM initiatives are top-down; handled by executives or designated risk analysts, responsible for creating risk-avoidance strategies.
- But 'enterprises' are loose, fragmented, shifting coalitions of people who network.

## Compliance (top-down) doesn't work

- Rules and regulations are too rigid when things are changing.
- Risk analysts and executives don't experience and can't see the problems (most are not in their hands).
- Employees are not responsive: they don't see risk in the same way.

# Organizing – handling uncertainty

## Understand the problems you are dealing with

- A peer-based mindset for openness (vs. rank-based)
- Seek and listen to opinions, intuitions, ideas, hunches, perspectives
- Put the work in the hands of those who 'have the problem'
- Flexibility and agility (vs. structures, rules)
- Reflection (vs. data-driven)
- Make the space to do the hard work of discussing, negotiating.
- Form judgments and make decisions.

**Pay attention. Act. Learn. Revisit. Rethink. Revise.**

