

Risk Governance

A new concept for coping with complex technological risks

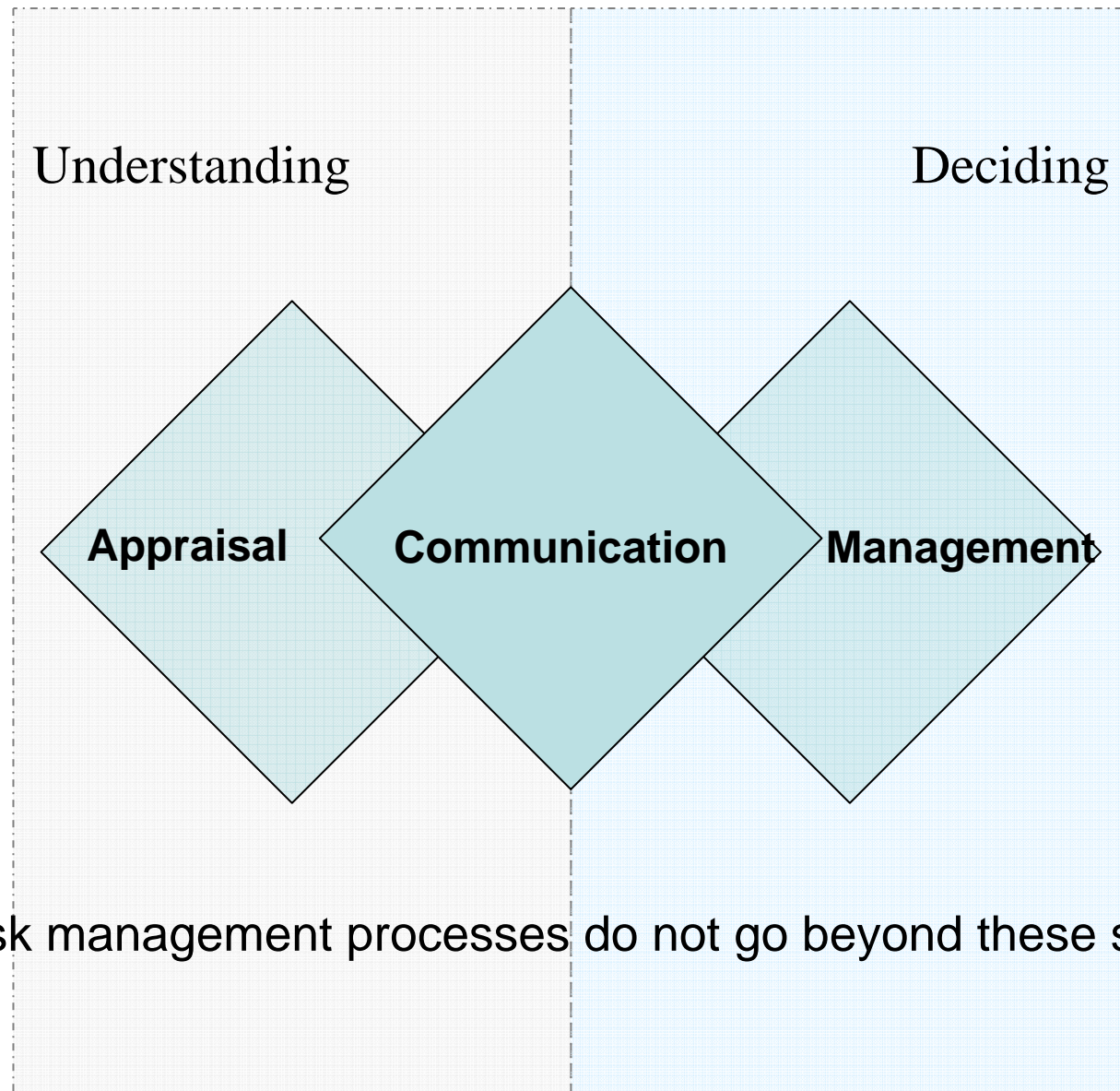
Brussels, January 26, 2011
EU Workshop on Risk Governance

Ortwin Renn
Stuttgart University
DIALOGIK gemeinnützige GmbH
International Risk Governance Council

The Basic Fabrics of Risk Governance

The Five Components of Risk Governance

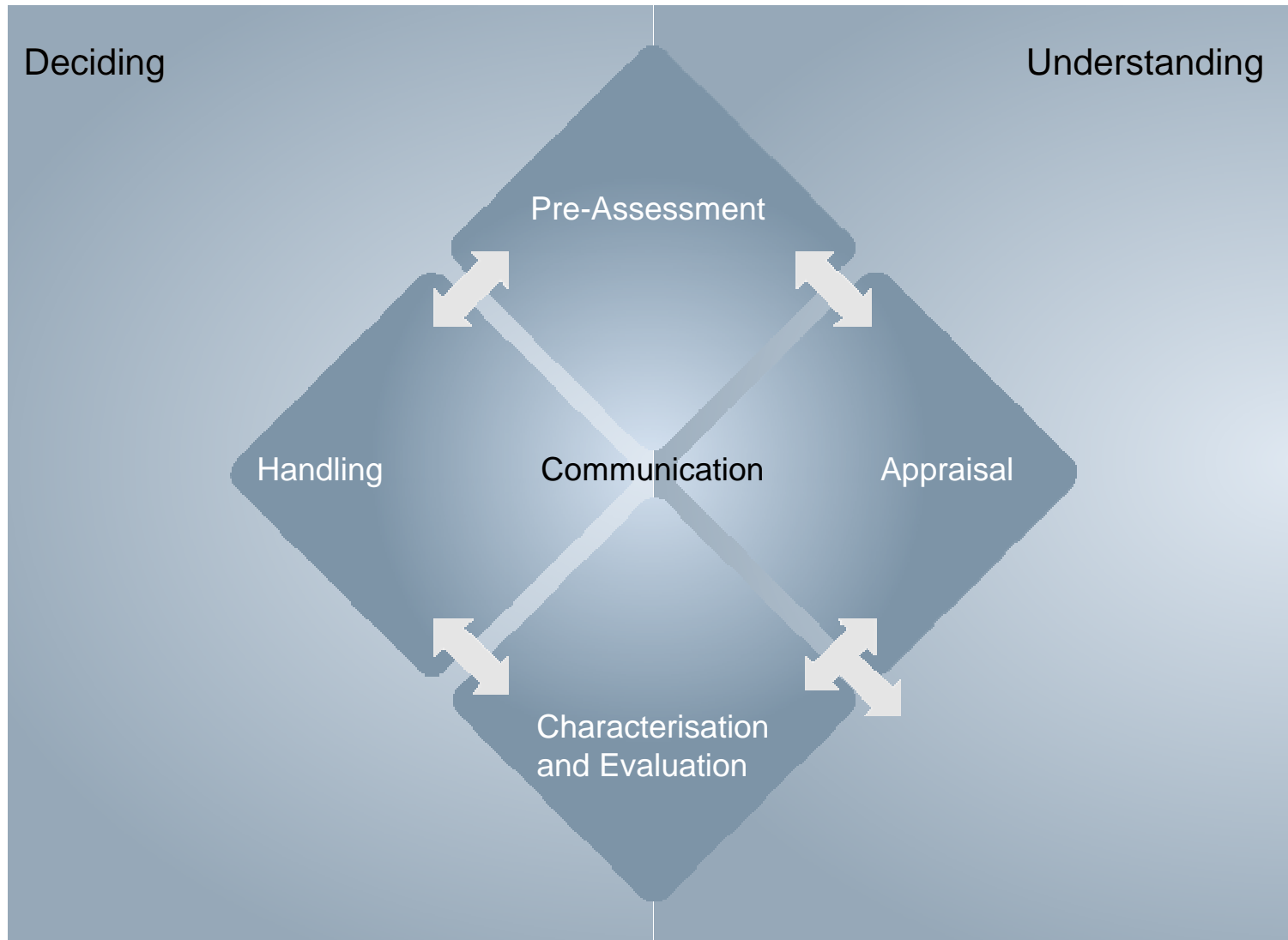
CONVENTIONAL RISK MANAGEMENT



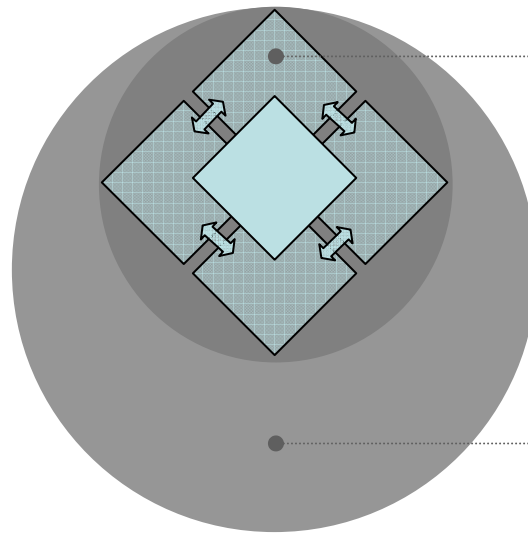
Need for integration

- ➔ Concept that links risk assessment with risk perception and social processing of risk
 - ➔ Avoiding relativist view of knowledge
 - ➔ Including social constructions of risks;
- ➔ Concept that links physical risk analysis with financial, economic and social risk;
 - ➔ Explore social amplification pathways
 - ➔ Look for cross-fertilization
- ➔ Concept that links risk theory with organizational capacity building and management competency
 - ➔ Systematic use of management sciences and decision aiding
 - ➔ Emphasis on risk communication between and among agencies and professionals

Risk Governance Process



RISK GOVERNANCE INCLUDES AND IS SENSITIVE TO CONTEXT



Core Risk Governance Process

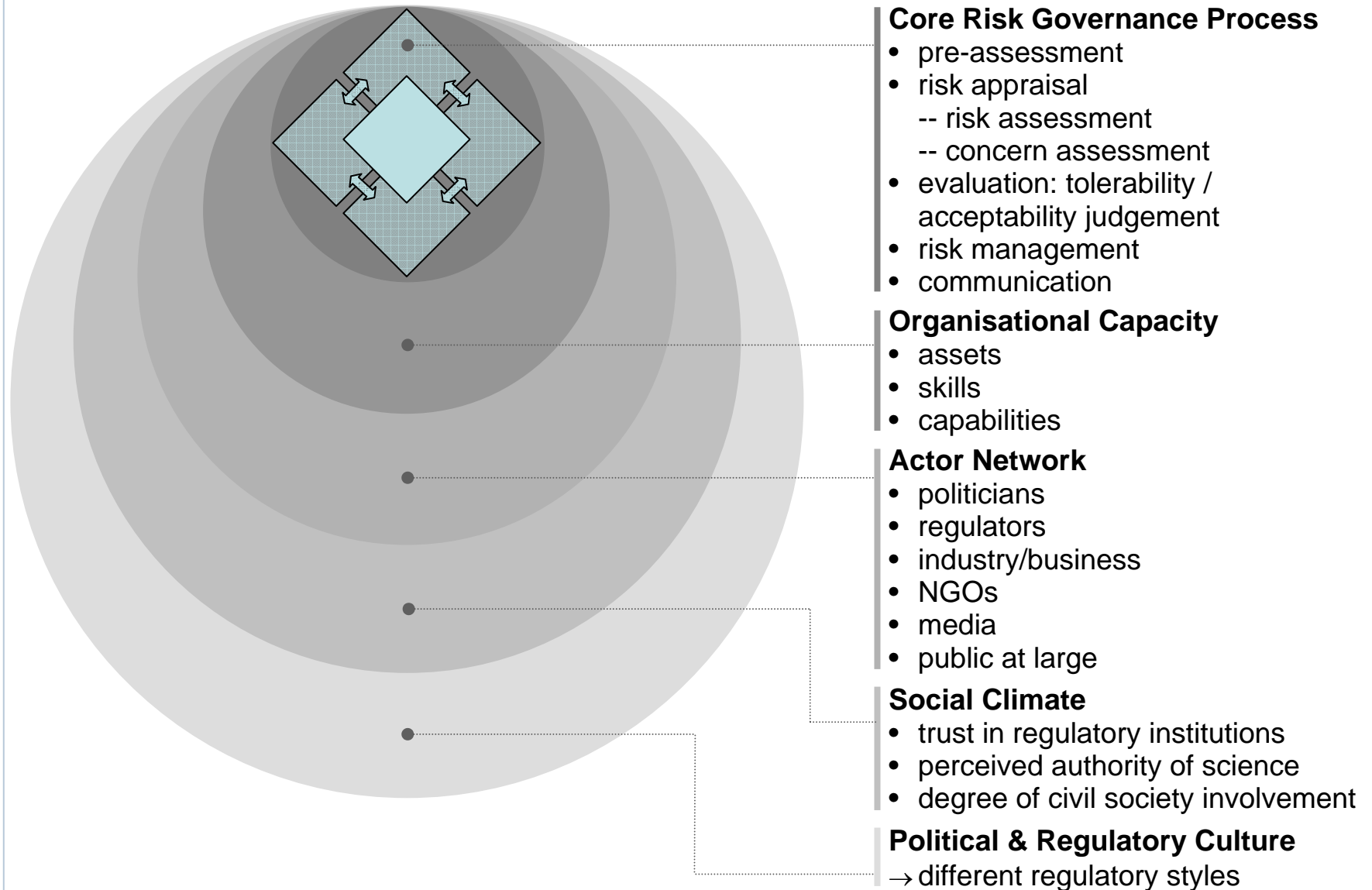
- pre-assessment
- risk appraisal
 - risk assessment
 - concern assessment
- evaluation: tolerability / acceptability judgement
- risk management
- communication

Organisational Capacity

- assets
- skills
- capabilities

Most risk management processes are done in this context only

RISK GOVERNANCE GOES MUCH FURTHER



Part 2:

The Unique Features of Risk Governance

What is Different?

Phase 1

Pre-Assessment

IMPORTANCE OF FRAMING

- *Frames represent social, economic and cultural perspectives*
 - Challenge or problem
 - Opportunity or risk
 - Innovation or intervention

- *Frames determine boundaries of what is included and excluded*
 - Time and duration (future generations, sustainability)
 - Location and space (the universe, all nation, the Netherlands, Le Hague)
 - Social class and stratus (vulnerable groups, poor, immigrants)
 - Types of adverse effects (physical, mental, social, cultural)
 - Primary or secondary impacts (ripple effects)
 - Criteria taken into account (risk reduction, cost, benefit, equity, environmental justice, value violations...)

Phase 2

APPRAISAL

Three challenges of risk management

- *Complexity* in assessing causal and temporal relationships
- *Uncertainty*
 - variation among individual targets
 - measurement and inferential errors
 - genuine stochastic relationships
 - system boundaries and ignorance
- *Ambiguity* in interpreting results

RISK APPRAISAL

■ Risk Assessment

- Hazard identification and estimation
- Exposure assessment
- Risk estimation

■ Concern Assessment

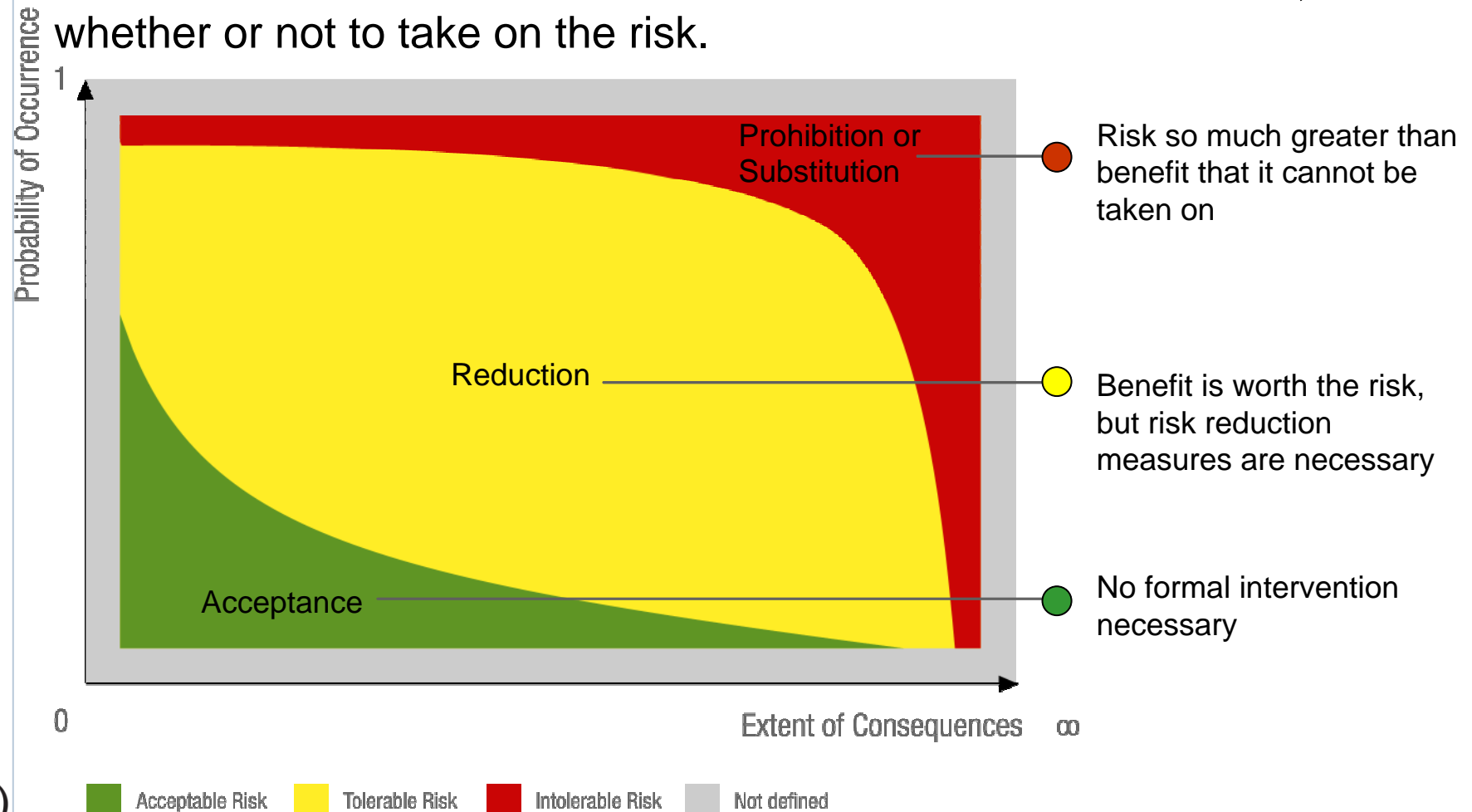
- Socio-economic impacts
- Economic benefits
- Public concerns (stakeholders and individuals)

Phase 3

Tolerability and Acceptability Judgment

EVALUATION – IS THE RISK ACCEPTABLE, TOLERABLE OR INTOLERABLE / NOT-ACCEPTABLE (TRAFFIC LIGHT MODEL)

Based on **both the evidence from the risk appraisal and evaluation of broader value-based choices and the trade-offs involved**, decide whether or not to take on the risk.



Phase 4

RISK Management

NEED FOR DIFFERENT RISK MANAGEMENT STRATEGIES

- dealing with routine, mundane risks
- dealing with **complex** and sophisticated risks (high degree of modeling necessary)
- dealing with highly **uncertain** risks (high degree of second order uncertainty)
- dealing with highly **ambiguous** risks (high degree of controversy)
- dealing with imminent dangers or crisis (need for fast responses)

Overview of risk handling strategies

- Four risk handling regimes should be used to deal with these new risk challenges:
 - *Linear strategy*: standard risk assessments
 - *risk-informed strategy*: expanded risk assessments; seeking expert consensus and epistemic clarification
 - *precaution-resilience-based strategy*: negotiated safety level under uncertainty; seeking stakeholder consensus and relying on containment and resilience
 - *discourse-based strategy*: value-based orientation; seeking more public input and stakeholder involvement for interpretative variability and normative controversy

Complementary Phase

Risk Communication and Stakeholder Involvement

RISK COMMUNICATION

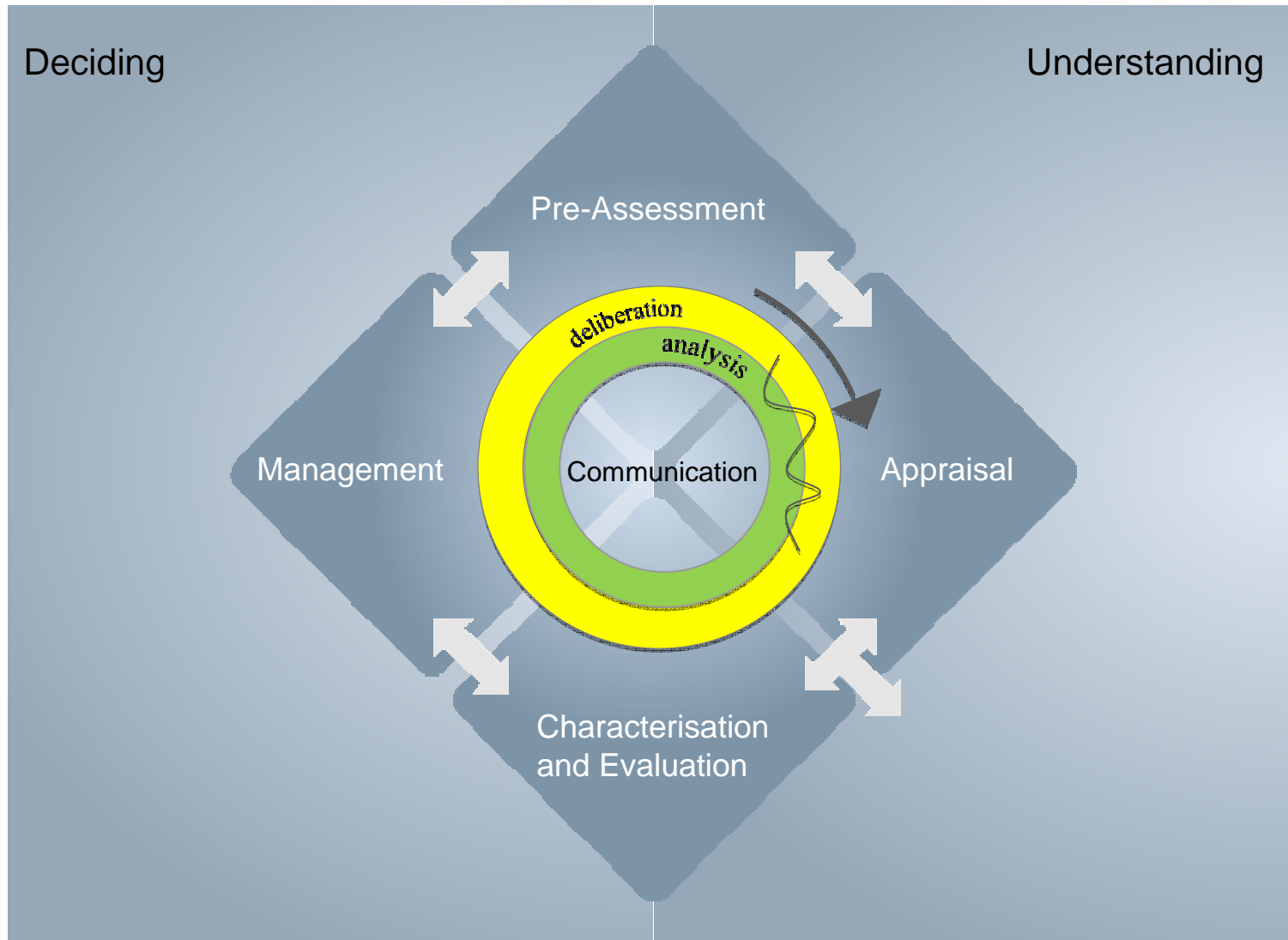
Risk Communication takes place in all 4 Governance phases

- Internally (other agencies, regulatory bodies)
- Externally (stakeholders, media, public)

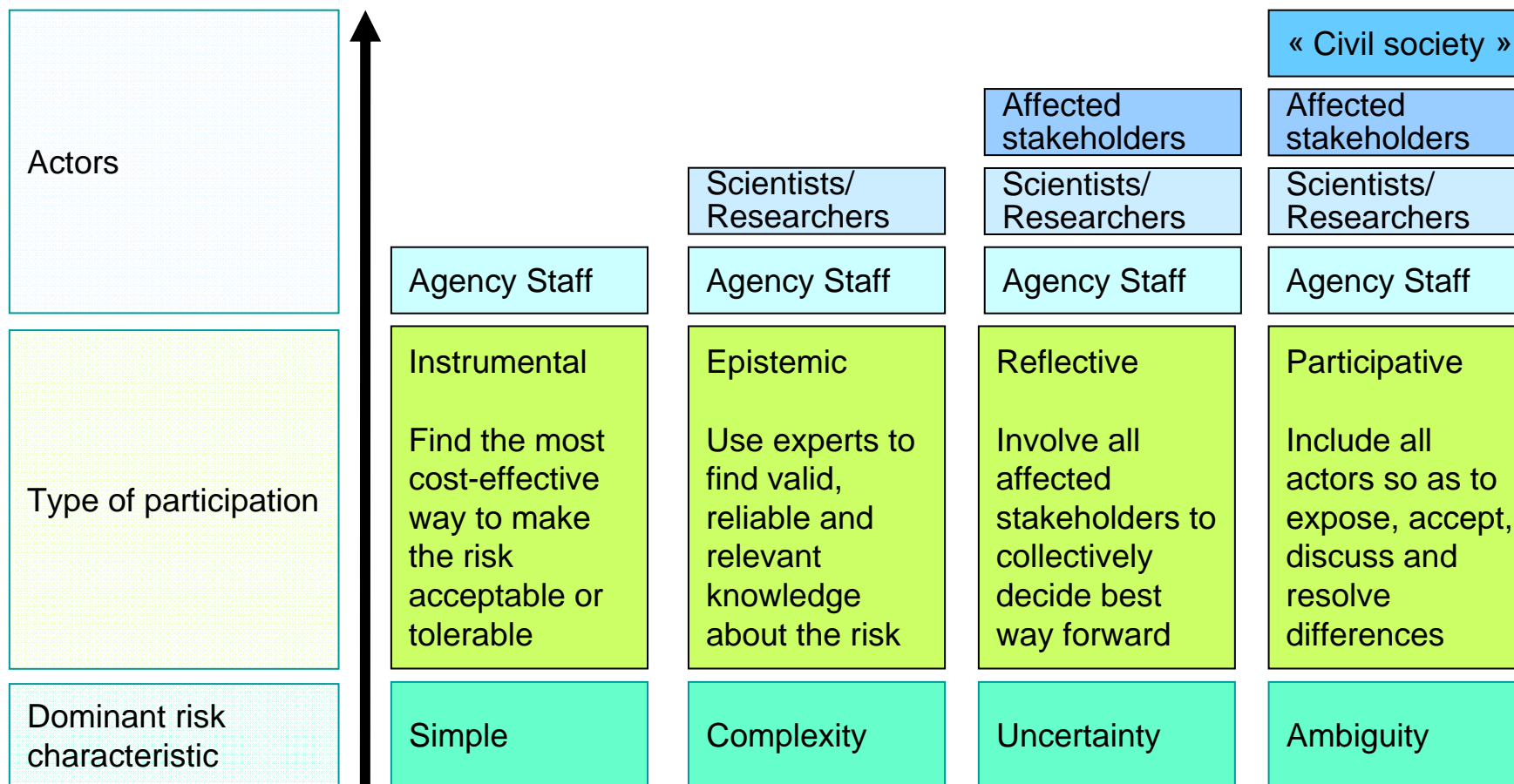
Risk Communication should match risk characteristics

- Complexity, Uncertainty, Ambiguity

Risk Governance Process



STAKEHOLDER INVOLVEMENT



As the level of knowledge changes, so also will the type of participation need to change

COMMUNICATION PRINCIPLES

- Stakeholder involvement needs to start already in the framing phase
- Communication is crucial throughout the entire risk governance process
- Epistemic, reflective and normative discourses must be conducted in parallel
- Focus of communication should be on uncertainty and ambiguity
- Sustaining trust requires excellent performance and credible regulation

Part IV
Conclusions

Lessons for Risk Governance

Conclusions

■ Problems in handling risks:

- Plural values and knowledge claims
- Expert dissent on risk and benefits
- Transboundary and transsectoral nature of risks
- Social amplification and attenuation via perception and social mobilization
- Pressure from globalized economy
- Lack of organizational capacity in many countries
- Lack of effective governance structures

■ Emergence of systemic risk that cross national and sectoral boundaries (ripple effects)

■ Need for an integrated risk governance approach

Conclusions II

■ Important aspects of risk governance

- Acknowledgement of different frames
- Distinguished strategies to deal with uncertainties and ambiguities
- Importance of both risks and concerns
- Need for explicit risk and benefit evaluation including the consideration of equity impacts
- Need for global governance mechanisms (monitoring, control, supervision)
- Importance of effective risk and benefit communication programs
- Need for inclusive governance integrating government, industry, civil society and science
- Need for gaining public trust and support

QUOTE

- “What man desires is not knowledge but certainty.”

Bertrand Russell

- Policy makers cannot produce certainty but can help people to develop coping mechanisms to deal prudently with the necessary uncertainty that is required for societies to progress

QUOTE

- “What man desires is not knowledge but certainty.”

Bertrand Russell

- Policy makers cannot produce certainty but can help people to develop coping mechanisms to deal prudently with the necessary uncertainty that is required for societies to progress

This paper was produced for a meeting organized by Health & Consumers DG and represents the views of its author on the subject. These views have not been adopted or in any way approved by the Commission and should not be relied upon as a statement of the Commission's or Health & Consumers DG's views. The European Commission does not guarantee the accuracy of the data included in this paper, nor does it accept responsibility for any use made thereof.