Risk Governance

A new concept for coping with complex technological risks

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EU Workshop on Risk Governance

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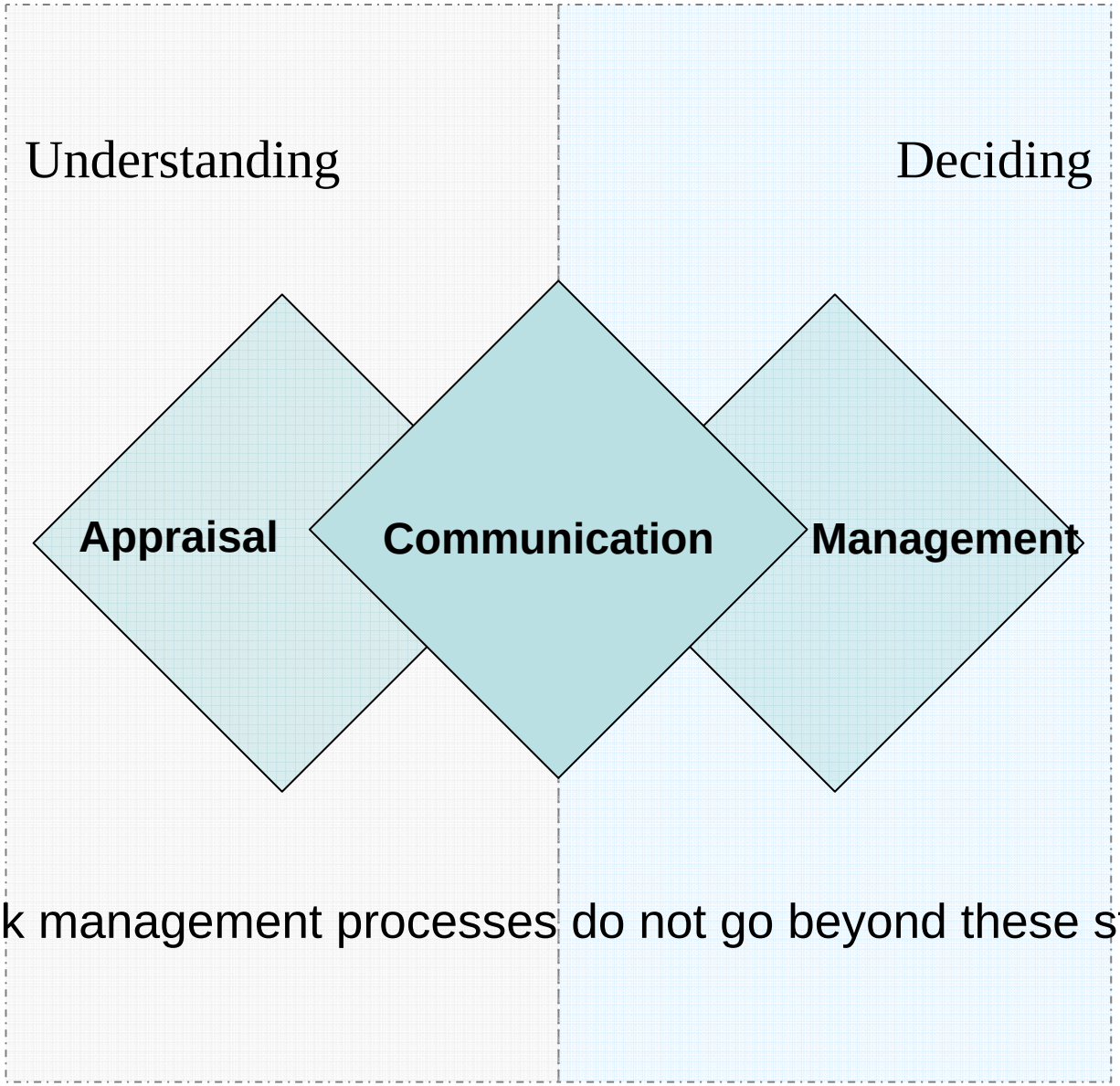
International Risk Governance Council

The Five Components of Risk Governance

CONVENTIONAL RISK MANAGEMENT

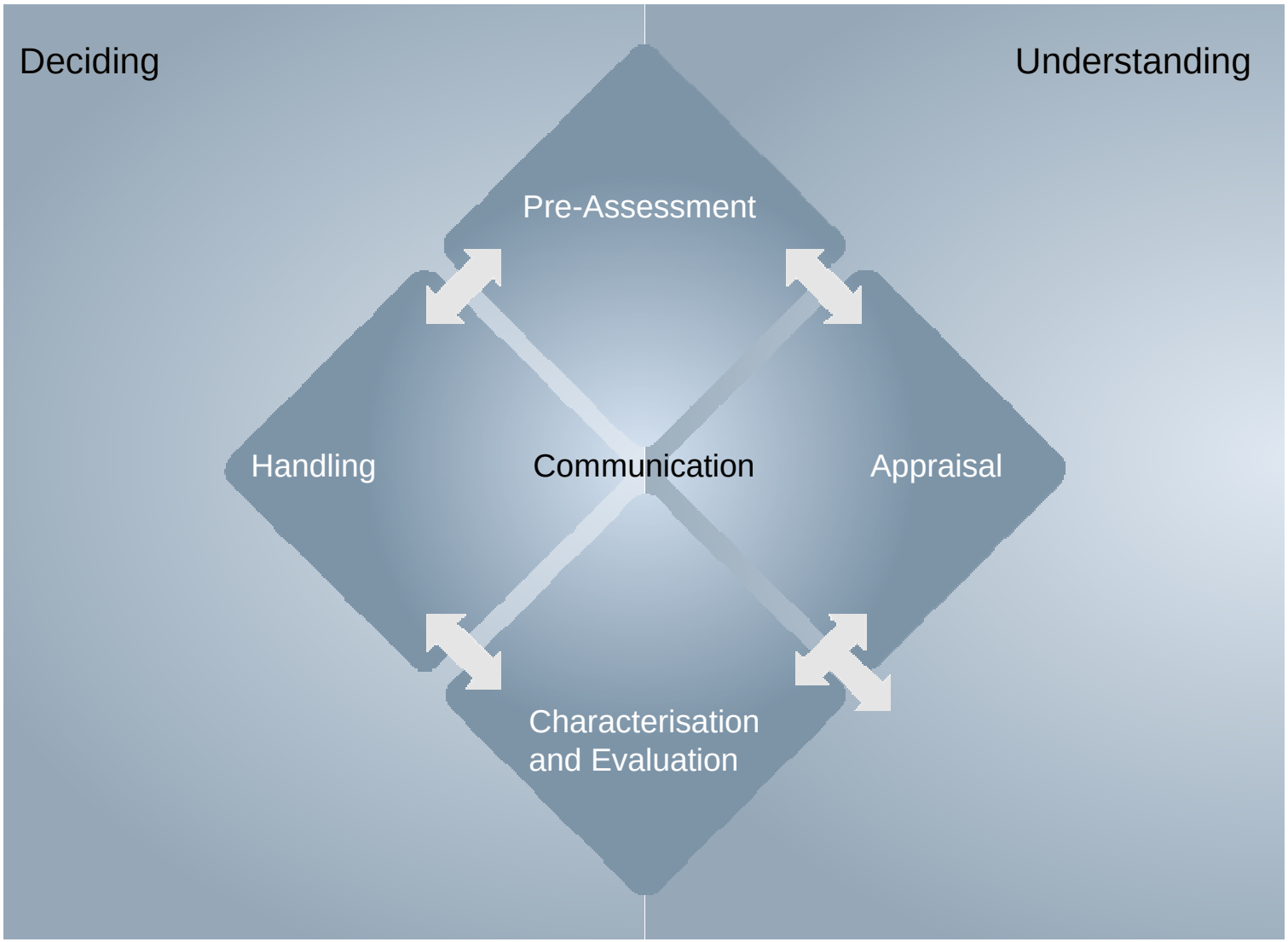


Most risk management processes do not go beyond these steps

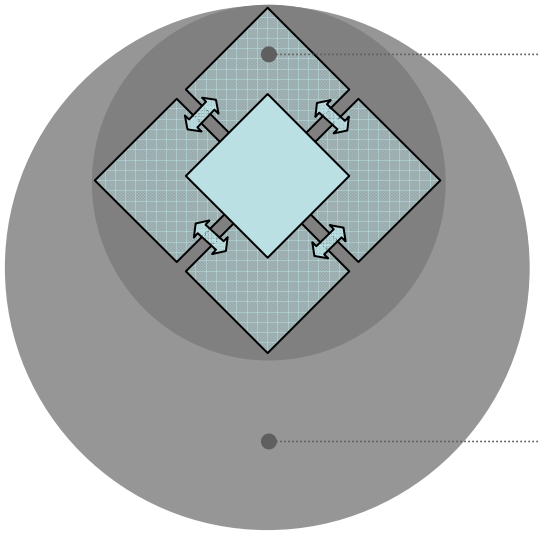
Need for integration

- 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

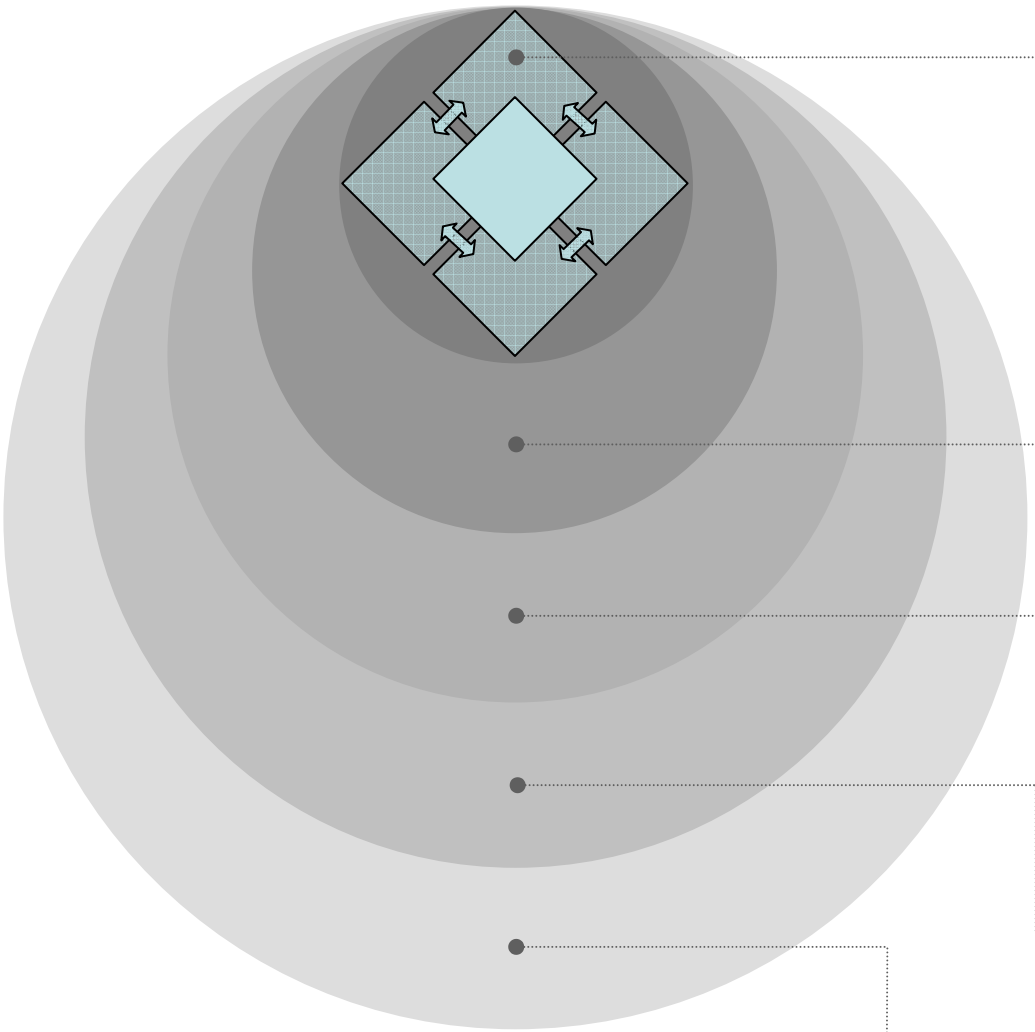
- pre-assessment
- risk appraisal
  -- risk assessment
  -- concern assessment
- evaluation: tolerability / acceptability judgement
- risk management
- communication

Organisational Capacity

- assets
- skills
- capabilities

Most risk management processes are done in this context only

RISK GOVERNANCE GOES MUCH FURTHER



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

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

Political & Regulatory Culture
→ different regulatory styles

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

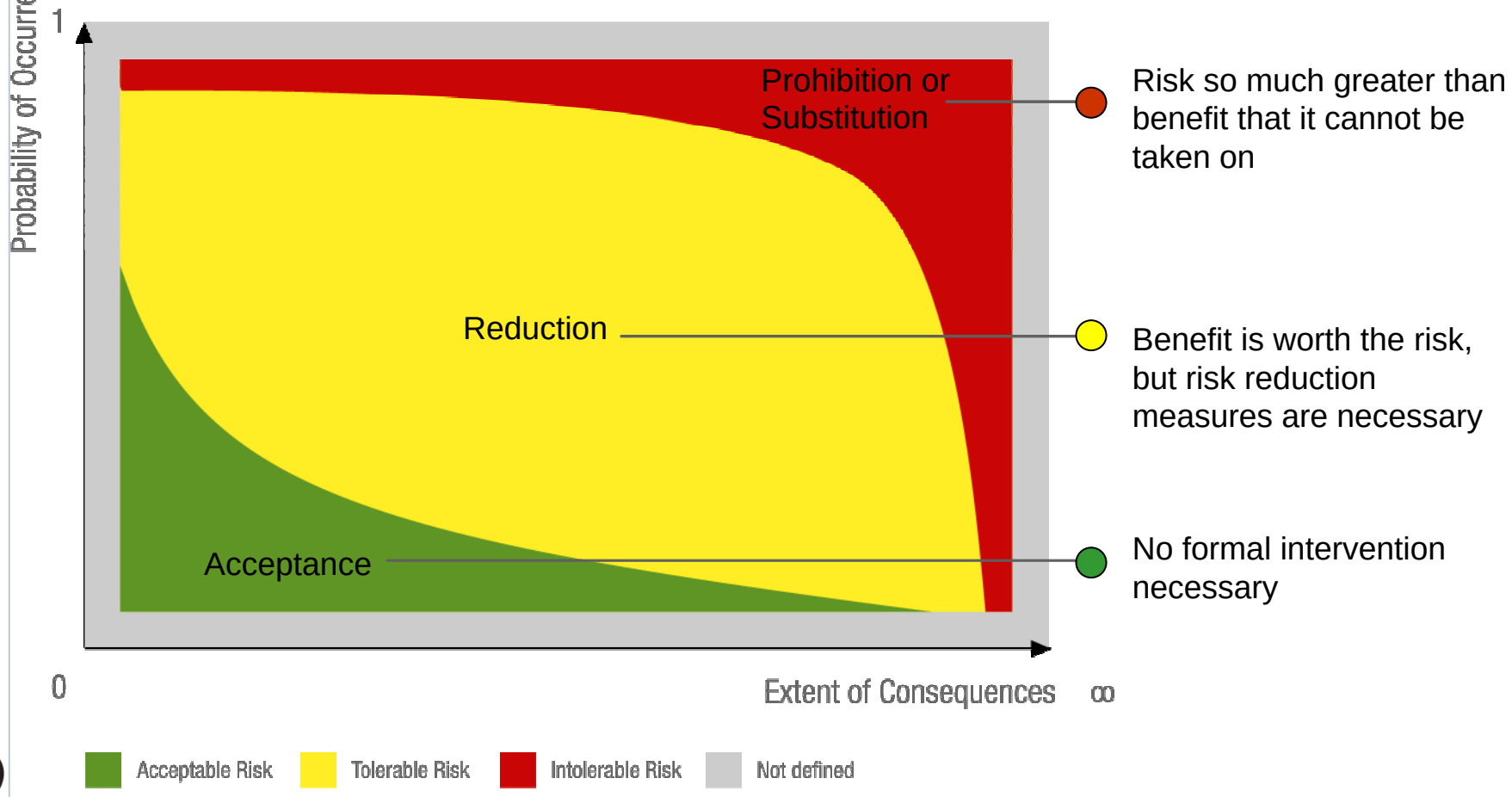
- **Risk Assessment**
  - Hazard identification and estimation
  - Exposure assessment
  - Risk estimation
- **Concern Assessment**
  - Socio-economic impacts
  - Economic benefits
  - Public concerns (stakeholders and individuals)

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

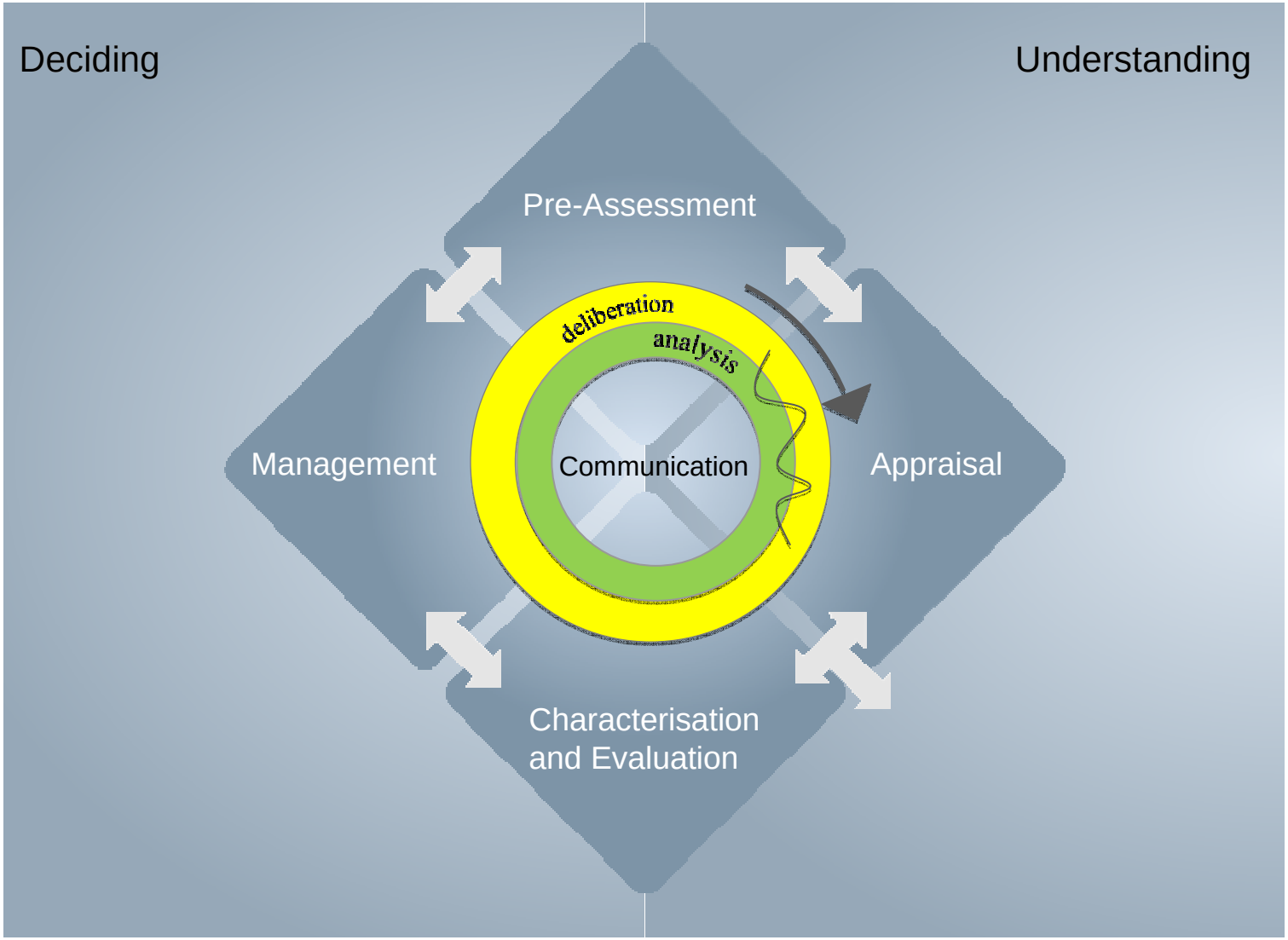
Risk Communication takes place in all 4 Governance phases

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

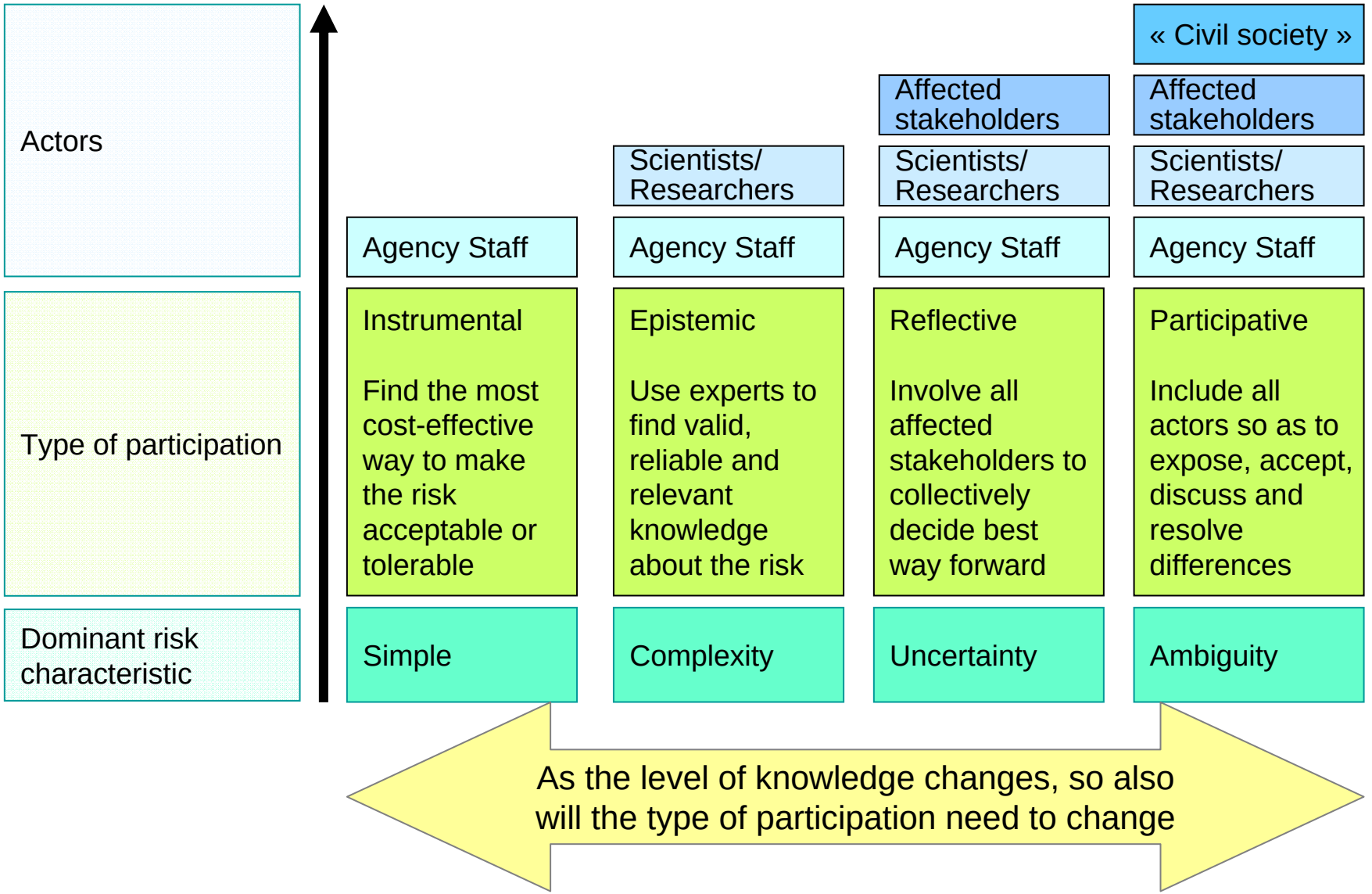
Risk Communication should match risk characteristics

- **Complexity, Uncertainty, Ambiguity**

Risk Governance Process



STAKEHOLDER INVOLVEMENT



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

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  Bertrand Russell

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