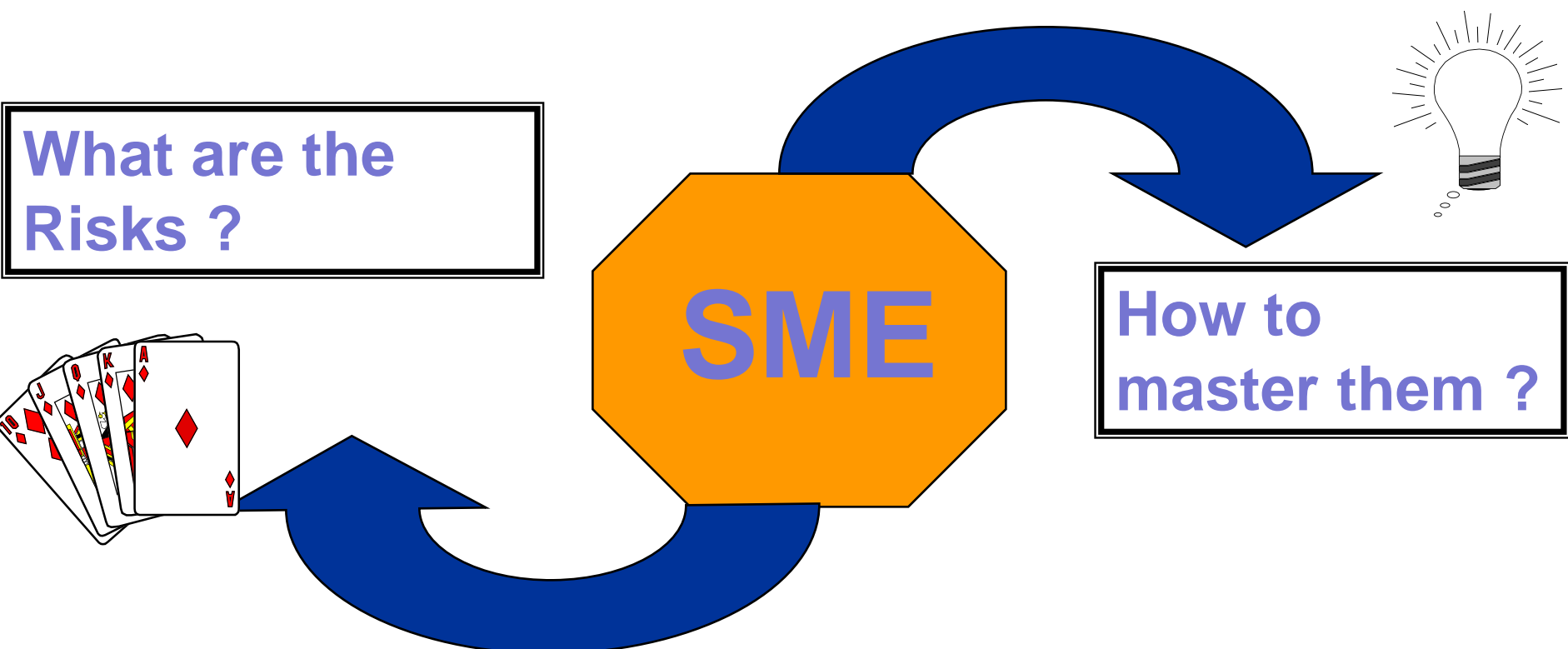




Risk Governance Coping with Uncertainty

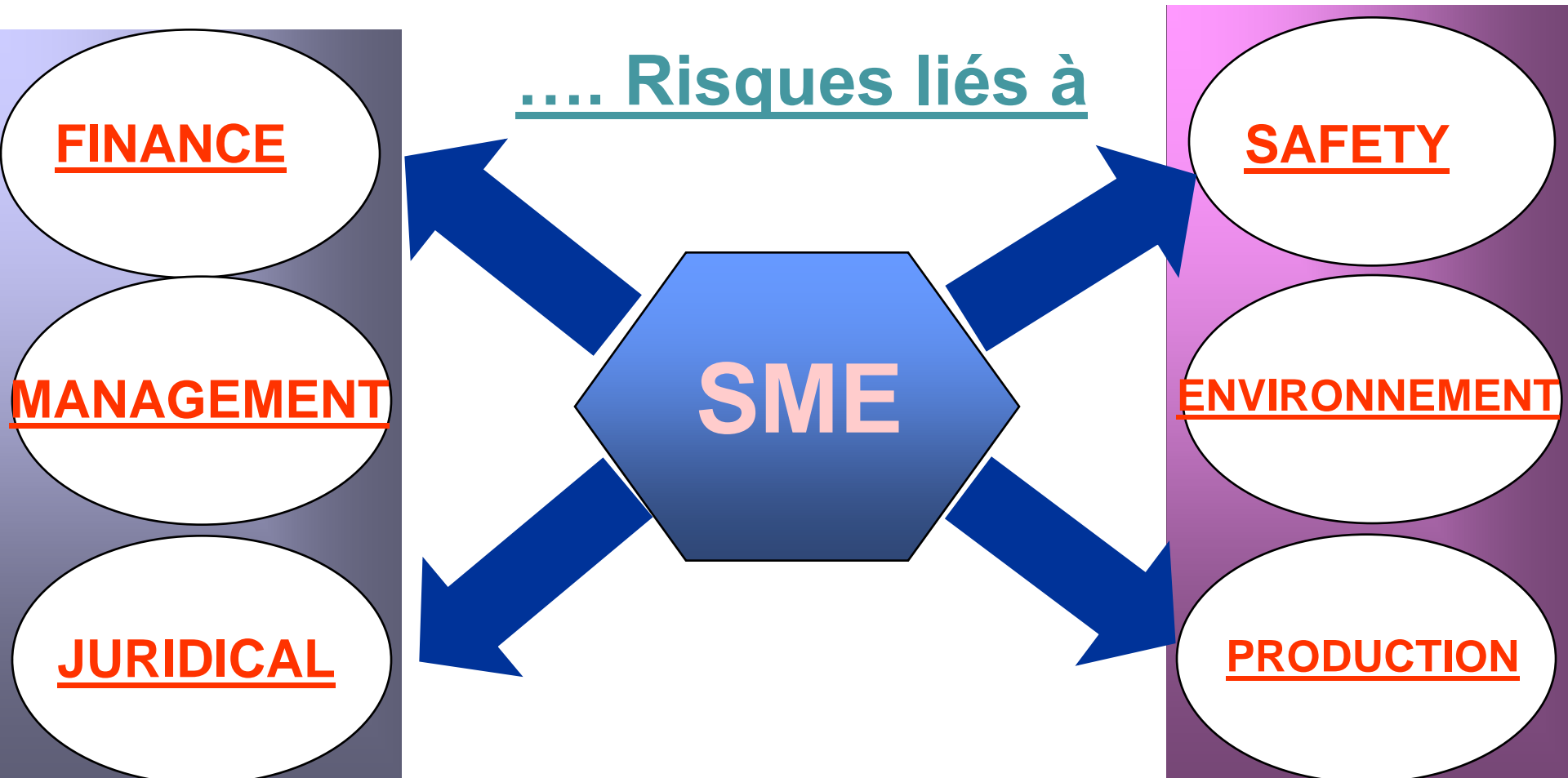
Point of View of a Company
APSYS (AIRBUS GROUP)

SME Risk Management



SME have to apply their specific framework...

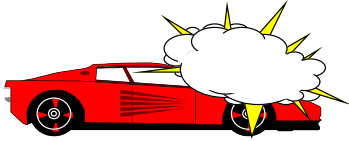
How to hierarchize...





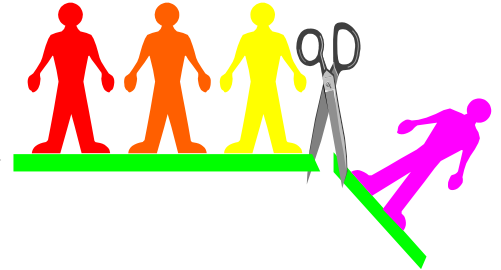
Institut pour la Maîtrise des Risques
Sûreté de Fonctionnement - Management - Cindyniques

SME PME...



Loss of items

Loss of mastering



hazard

Project interruption

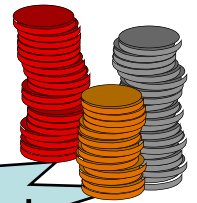
Delay of delivery



Loss of money

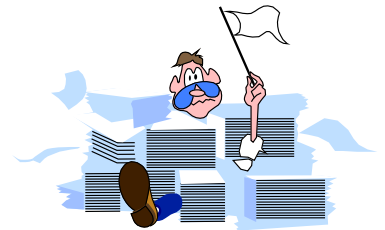
Loss of image

Human hazard



juridical

Risk Governance / PoV of a company





Taxonomy of Risks

risques médiatiques ou risques de perte d'image

risques lié aux personnes (pérennité liée à l'encadrement, au savoir faire, accident)

risques de type contentieux : « claim » : (engagement contractuel, défense et recours)

risque de défaillance des partenaires dans le cadre de groupements solidaires

risques juridiques / pénal et civil

risques de perte de productivité ou de production (défaillance processus ou ressources...)

risques de défaillance d'un fournisseur

risques de défaillance du produit (fiabilité, qualité, durée en vie)

risques lié à la gestion financière de la PME (placement des avoir)

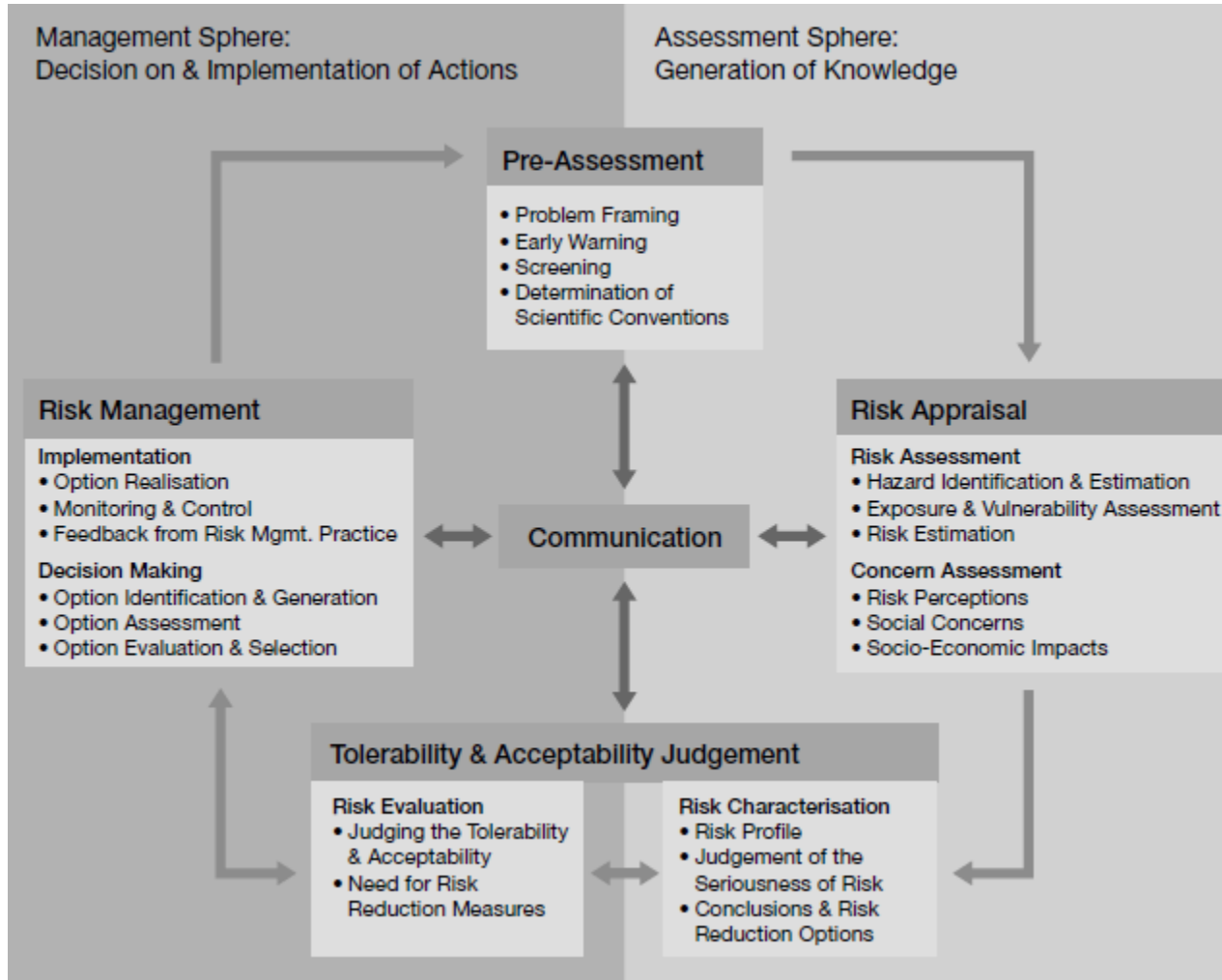
risques de management (manque de confiance vis à vis des collaborateurs)

risques immatériels (enjeux non nécessairement financier)

risques stratégiques (positionnement, renouvellement de l'offre, innovation)

risques commerciaux (compétitivité, concurrence, dépendance excessive d'un clients...)

Applicability to SME





Type of Risk

1	'Simple' risk problems	<i>Routine-based:</i> (tolerability/acceptability judgement) (risk reduction)	<ul style="list-style-type: none"> ➔ Applying 'traditional' decision-making • Risk-benefit analysis • Risk-risk trade-offs • Trial and error • Technical standards • Economic incentives • Education, labelling, information • Voluntary agreements 	Instrumental discourse
2	Complexity-induced risk problems	<i>Risk-informed:</i> (risk agent and causal chain)	<ul style="list-style-type: none"> ➔ Characterising the available evidence • Expert consensus seeking tools: <ul style="list-style-type: none"> ◦ Delphi or consensus conferencing ◦ Meta analysis ◦ Scenario construction, etc. • Results fed into routine operation 	Epistemological discourse
		<i>Robustness-focussed:</i> (risk absorbing system)	<ul style="list-style-type: none"> ➔ Improving buffer capacity of risk target through: <ul style="list-style-type: none"> • Additional safety factors • Redundancy and diversity in designing safety devices • Improving coping capacity • Establishing high reliability organisations 	
3	Uncertainty-induced risk problems	<i>Precaution-based:</i> (risk agent)	<ul style="list-style-type: none"> ➔ Using hazard characteristics such as persistence, ubiquity etc. as proxies for risk estimates Tools include: <ul style="list-style-type: none"> • Containment • ALARA (as low as reasonably achievable) and ALARP (as low as reasonably possible) • BACT (best available control technology), etc. 	Reflective discourse
		<i>Resilience-focussed:</i> (risk absorbing system)	<ul style="list-style-type: none"> ➔ Improving capability to cope with surprises • Diversity of means to accomplish desired benefits • Avoiding high vulnerability • Allowing for flexible responses • Preparedness for adaptation 	
4	Ambiguity-induced risk problems	<i>Discourse-based:</i>	<ul style="list-style-type: none"> ➔ Application of conflict resolution methods for reaching consensus or tolerance for risk evaluation results and management option selection 	Participative discourse



Type of uncertainty

- *target variability* (based on different vulnerability of targets);
- *systematic and random error in modelling* (based on extrapolations from animals to humans or from large doses to small doses, statistical inferential applications, etc.);
- *indeterminacy or genuine stochastic effects* (variation of effects due to random events, in special cases congruent with statistical handling of random errors);
- *system boundaries* (uncertainties stemming from restricted models and the need for focusing on a limited amount of variables and parameters);
- *ignorance or non-knowledge* (uncertainties derived from lack or absence of knowledge).



Type of Decision Management

Style	Characteristics	Risk Management
1 <i>Adversarial approach</i>	<ul style="list-style-type: none"> • open to professional and public scrutiny • need for scientific justification of policy selection • precise procedural rules • oriented towards producing informed decisions by plural actors 	<ul style="list-style-type: none"> • main emphasis on mutual agreements on scientific evidence and pragmatic knowledge • integration of adversarial positions through formal rules (due process) • little emphasis on personal judgement and reflection on the side of the risk managers • stakeholder involvement essential for reaching communication objectives
2 <i>Fiduciary approach (patronage)</i>	<ul style="list-style-type: none"> • closed circle of „patrons“ • no public control, but public input • hardly any procedural rules • oriented towards producing faith in the system 	<ul style="list-style-type: none"> • main emphasis on enlightenment and background knowledge through experts • strong reliance on institutional in-house “expertise” • emphasis on demonstrating trustworthiness • communication focused on institutional performance and “good record”
3 <i>Consensual approach</i>	<ul style="list-style-type: none"> • open to members of the „club“ • negotiations behind closed doors • flexible procedural rules • oriented towards producing solidarity with the club 	<ul style="list-style-type: none"> • reputation most important attribute • strong reliance on key social actors (also non-scientific experts) • emphasis on demonstrating social consensus • communication focused on support by key actors
4 <i>Corporatist approach</i>	<ul style="list-style-type: none"> • open to interest groups and experts • limited public control, but high visibility • strict procedural rules outside of negotiating table • oriented towards sustaining trust to the decision making body 	<ul style="list-style-type: none"> • main emphasis on expert judgement and demonstrating political prudence • strong reliance on impartiality of risk information and evaluation • integration by bargaining within scientifically determined limits • communication focused on fair representation of major societal interests

SME issues

- **Cost Effectiveness of Method and Organization**
 - Priority to real time actions
 - Measurement of efficiency
- **Centralization of Decision**
 - SME management model
 - Cultural issues
- **Internal/External Risk**
 - Internal: process surveillance
 - External: knowledge collection
- **Others...**