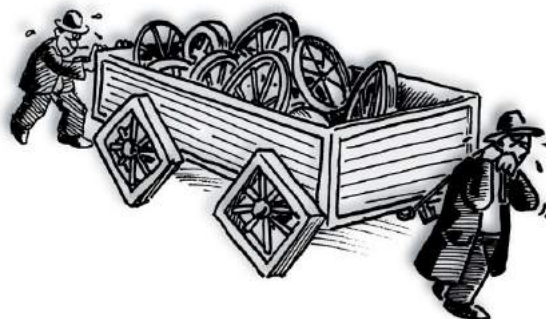


« (Re)inventing the wheels »,

an operational strategy towards a (re)evolution of management practices in an unprecedented crisis context



« Ceci n'est pas une roue »

(inspired by René Magritte)

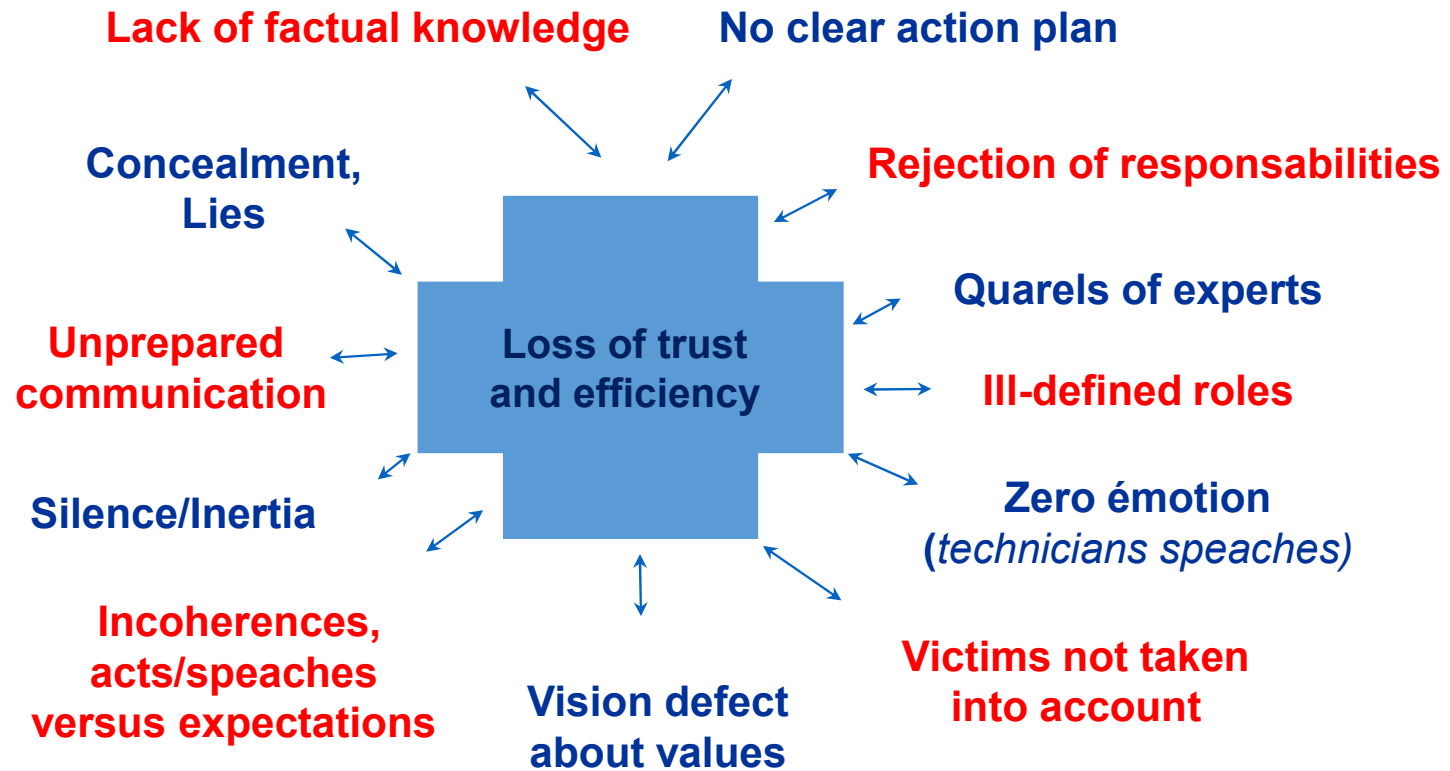
Dr Jacques de Gerlache

Expert in crisis preparedness & management &

Sustainable Development strategies

**EIRMA Webinar « R&I SURVIVAL THROUGH BUDGET DOWNSIZE »
07 May 2020 11:00-12:00 Brussels, Copenhagen, Madrid, Paris.**

The main pitfalls in a crisis management



The challenge: turn danger into opportunities !

Crisis
危机
Danger Opportunity

The challenge of a new paradigm

“Any man who only has a hammer necessarily sees his problem in the form of a nail”

Albert Einstein



A kind of copernician revolution?

See ...

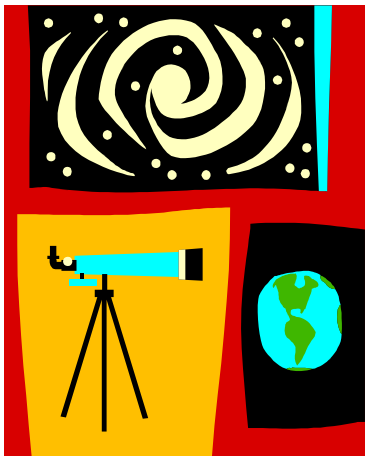
Think ...

Watch ...

Learn ...

Represent ...

Act ...

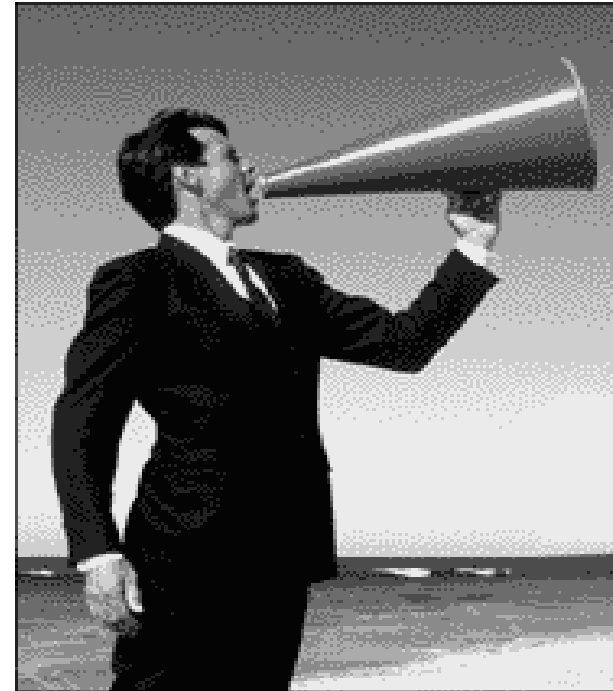


... beyond the present !

Communcation = dialog

- ◆ Communicating about risks therefore involves dialogue;
- ◆ democracy is based on the transparency of choices;
- ◆ citizens must be considered as partners and not just as simple “administered” or “bulky neighbors”.

- ◆ The challenge: give them the means to understand and decide for themselves!



Forget the loudspeaker strategy!

Facing an unprecedented crisis, adapting our algorithms is not enough to evolve

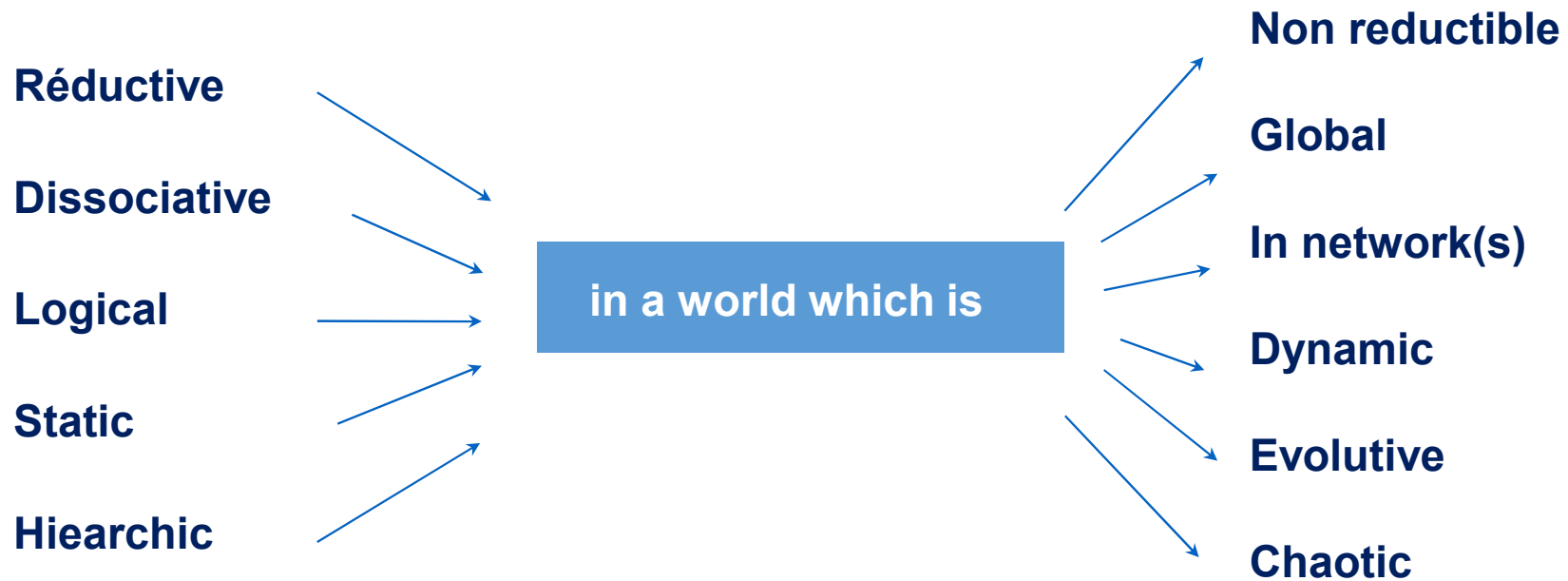
*It was not by trying to improve the performance of the candle
that Edison discovered the electric bulb.,*

- ***“To adapt to the unexpected ” requires an emerging a new and creative state of vision, of minds, of curiosity ; and true boldness.***



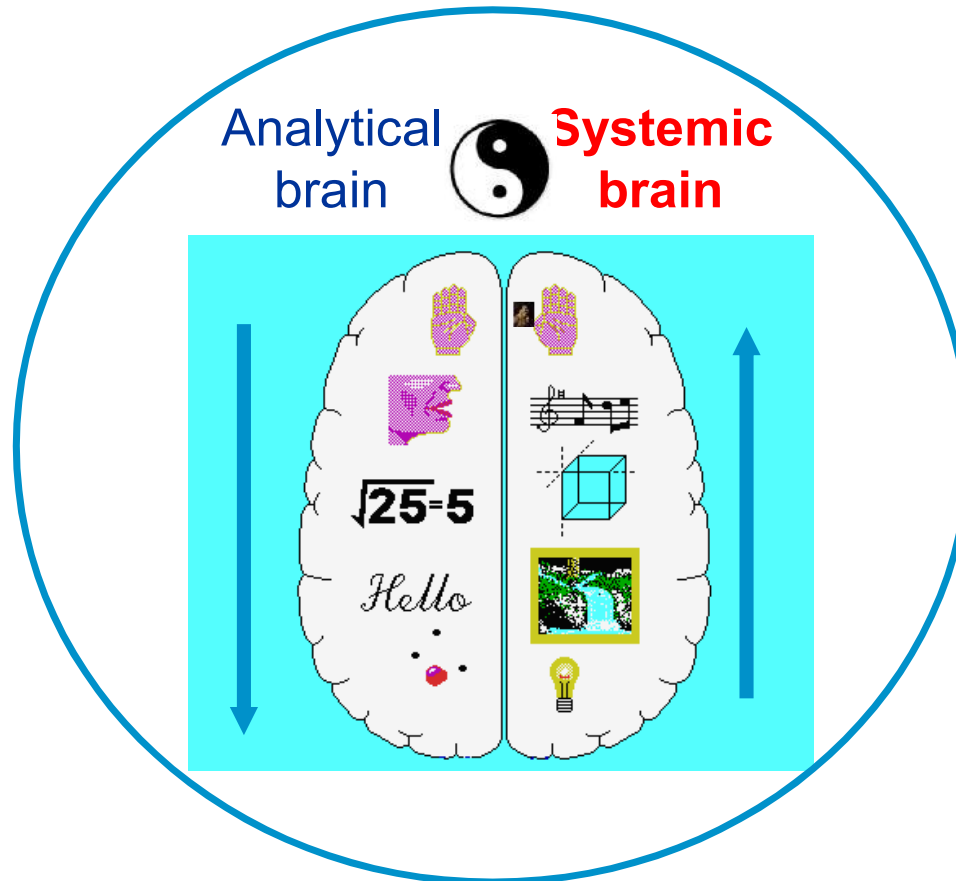
The failure to manage *with the appropriate methods* intrinsically complex & irreducible processes:

Our classical teachings lead us to be exclusively:

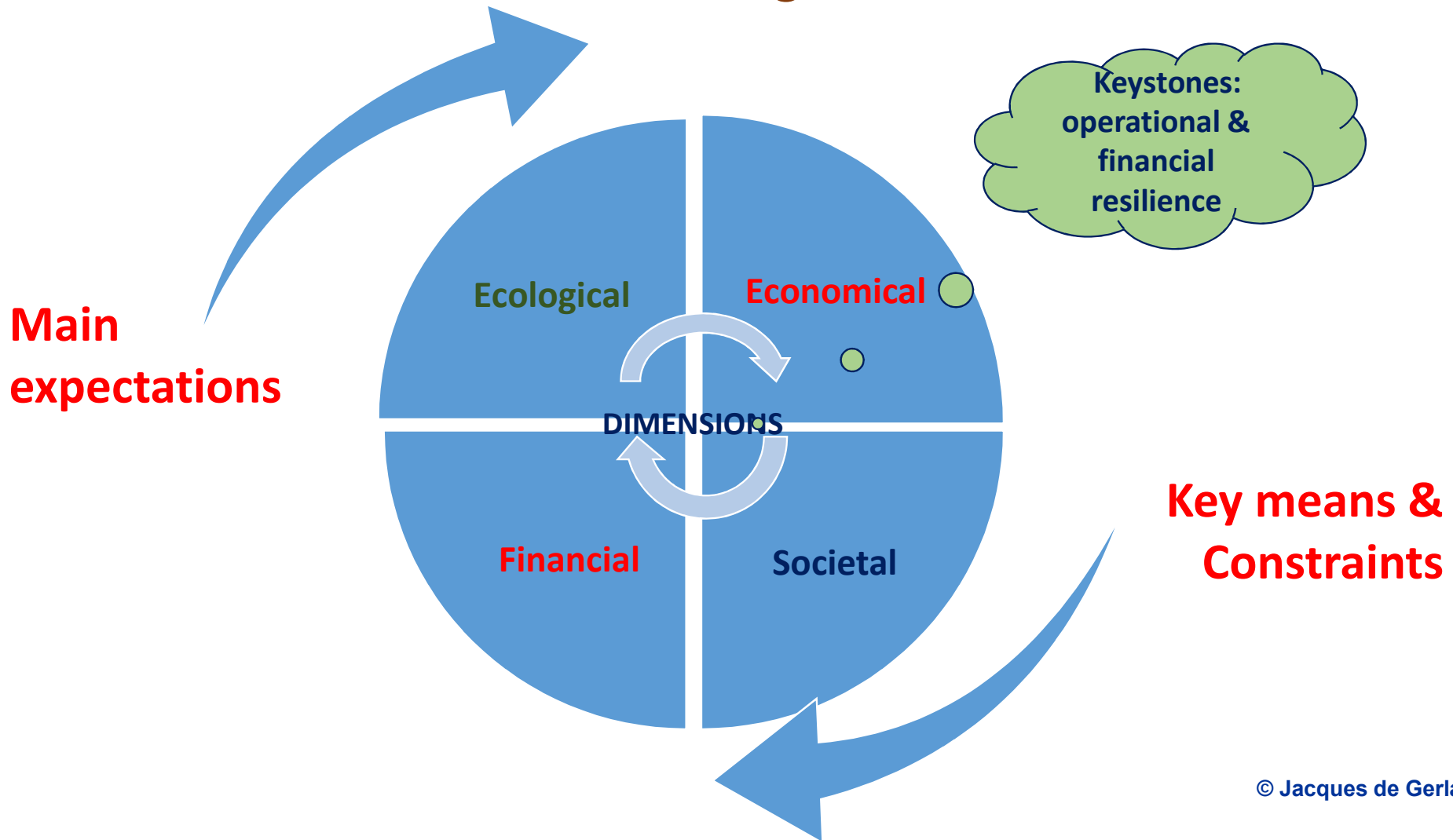


How to leave our *cyclopean* state of mind?

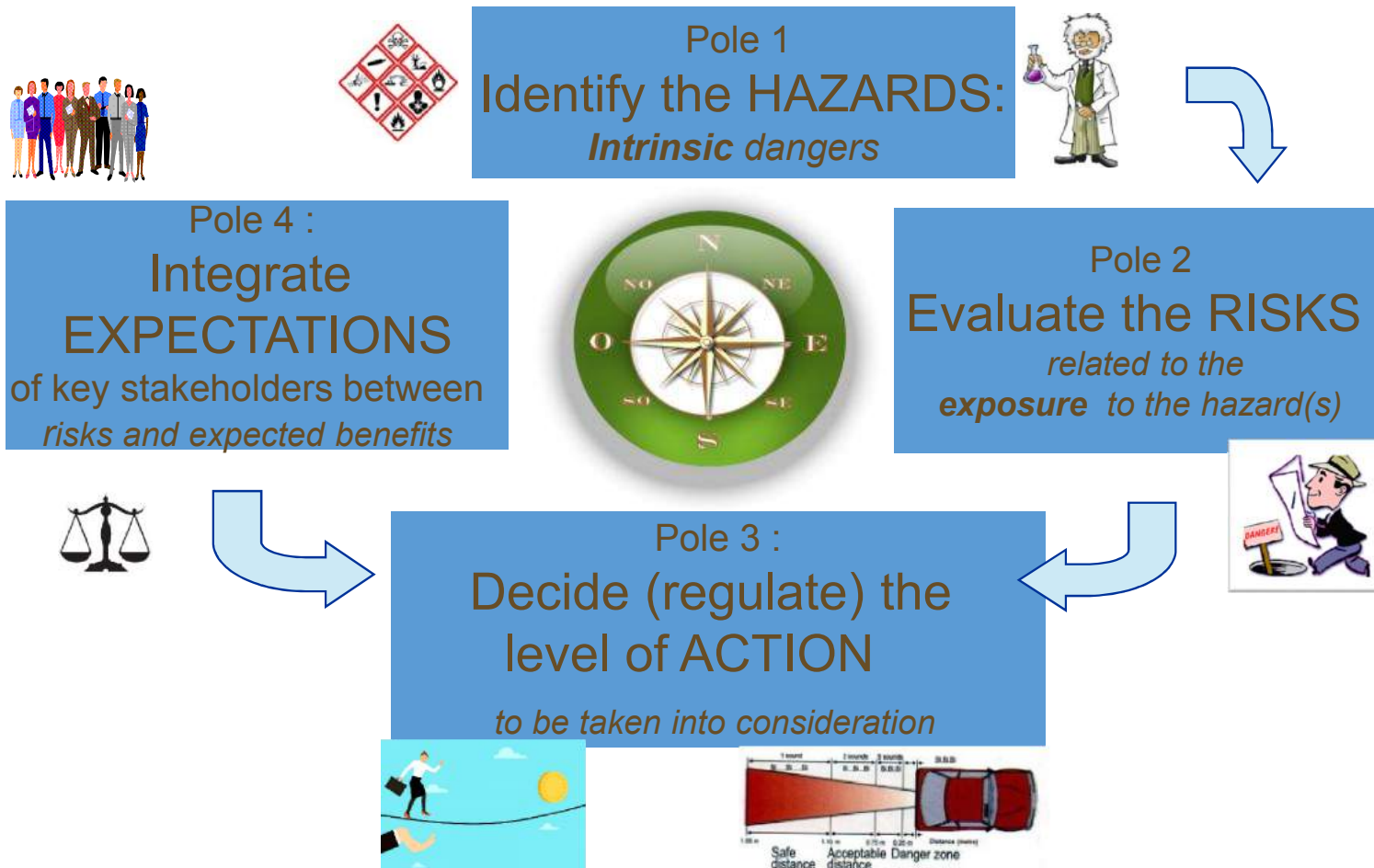
By eventually (re)conciling the potentials of the two hemispheres of our brain !



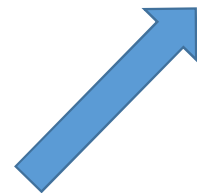
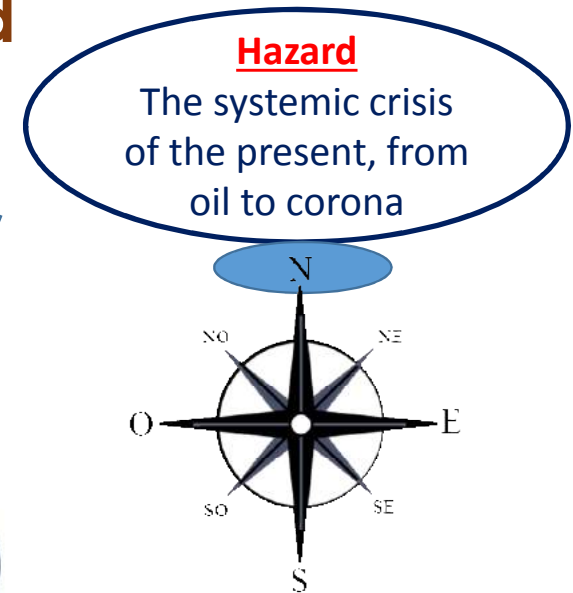
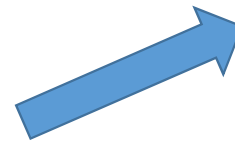
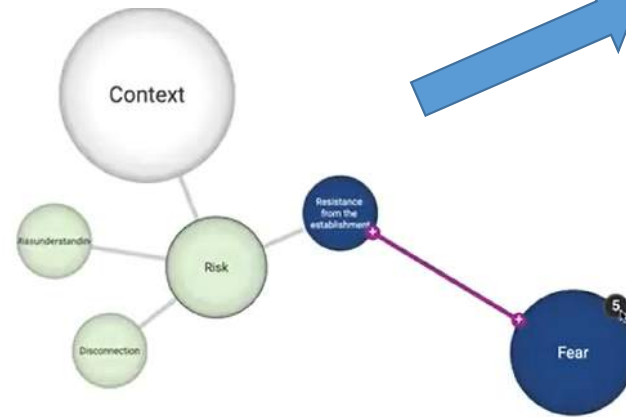
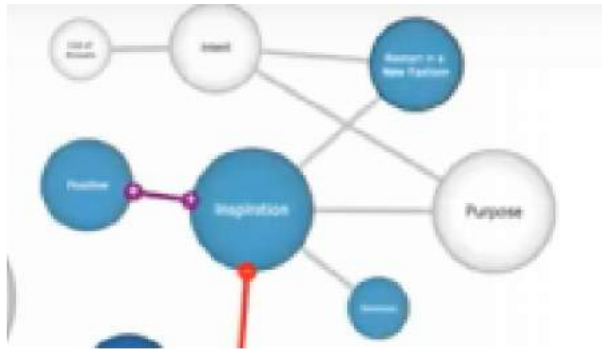
A resilient management of R&D: by the systemic integration of all its *eco-no-lo-gical* dimensions



To not loose the sight of the north when managing challenges: the four poles of the compass !



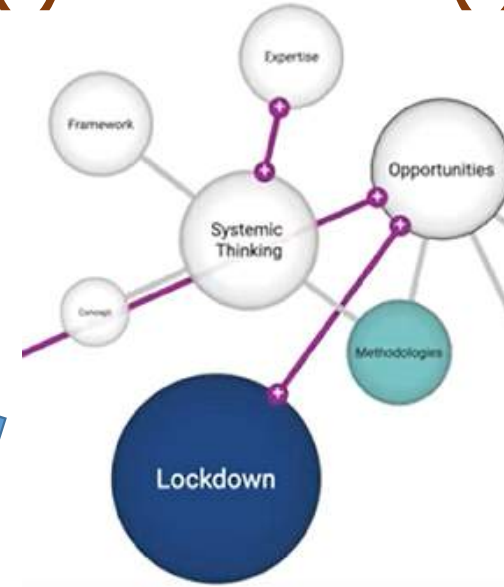
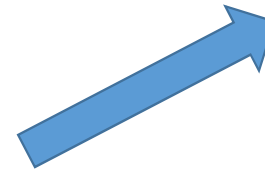
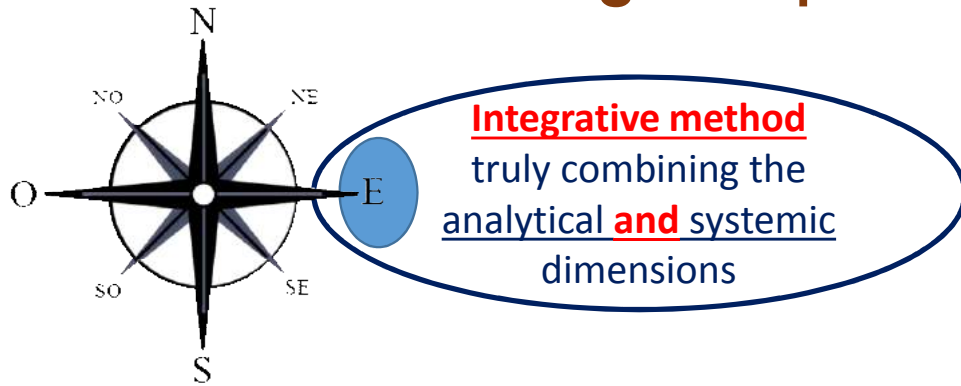
First pole : the intrinsic hazard



Listing of the keys elements of the hazards creating the crisis situation

- : i
- : i
- : i
- : i

Second pole : integrating the dimensions of risks resulting from potential exposure(s) to the hazard(s)



Listing of the main risks identified and quantified through integrative methodologies

- *i*
- *i*
- *i*
- *i*

Third pole : the essential strategic decisions to manage the stakes and the associated



Identify the potential essential strategic decisions to manage between risks and constraints

- ;
- ;
- ;
- ;
- ;
- ;

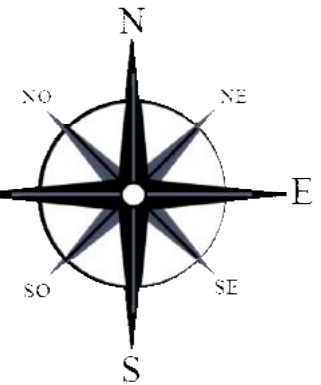
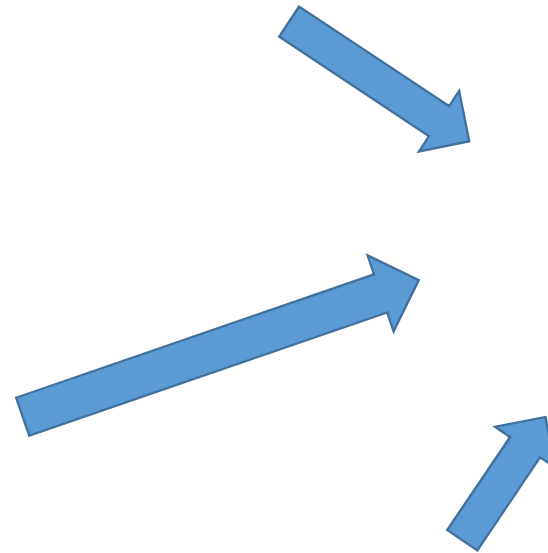
Fourth pole : take into account all involved stakeholders opinions and constraints in the operational actions plans

Identify the key stakeholders involved:

- ;
- ;
- ;
- ;
- ;

Organise their constraints

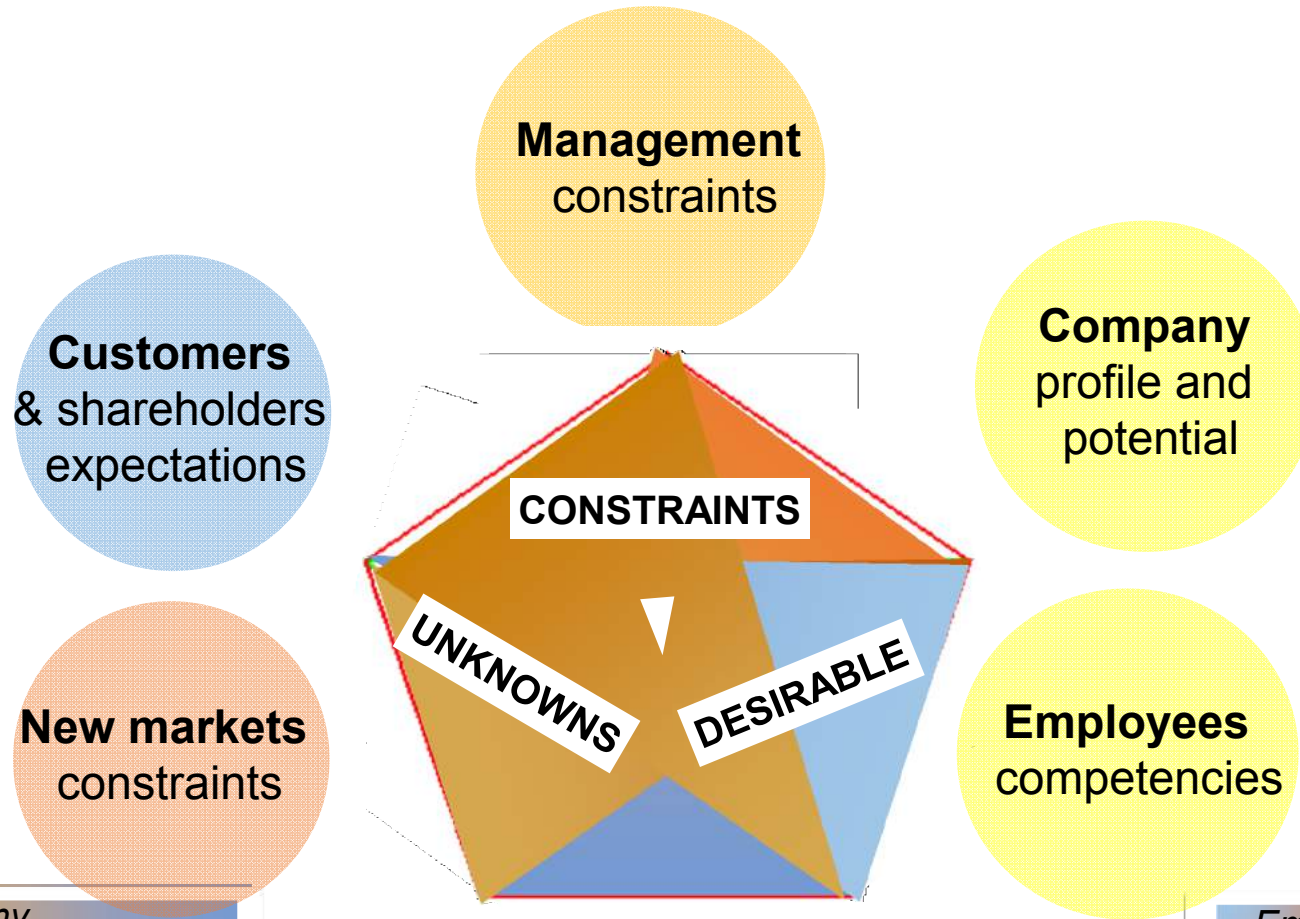
- ;
- ;
- ;
- ;
- ;



Identify and integrate their expectations:

- ;
- ;
- ;
- ;

Set the scene to create an implementable R&D balance sheet.

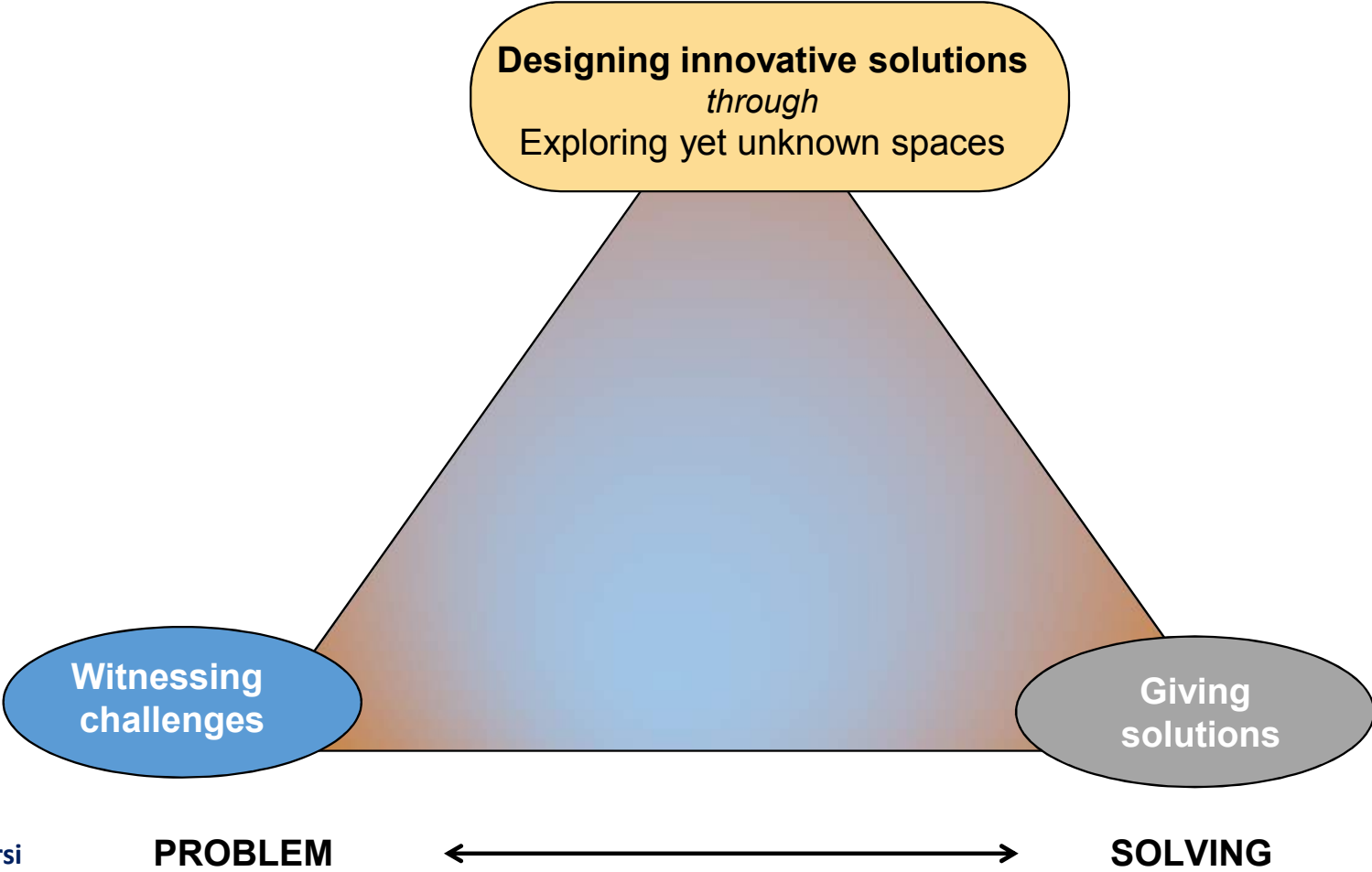


A market-oriented company that integrates competencies and other resources for widest shared benefit.

Employees engagement as a forward ambassador of company future.

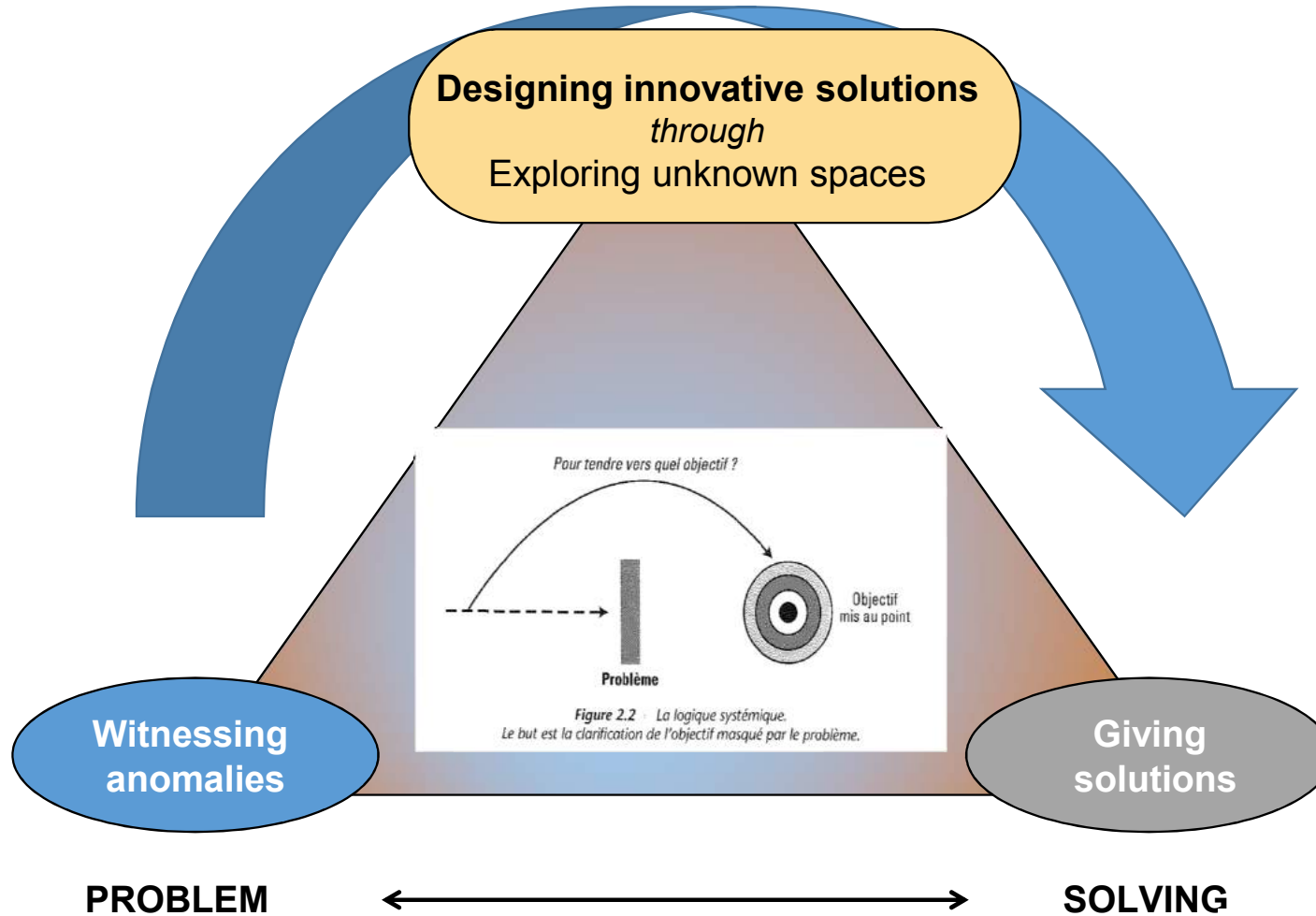
Adapted from Patrick Corsi

Design the methodological strategy used to develop such approach



Source : Patrick Corsi

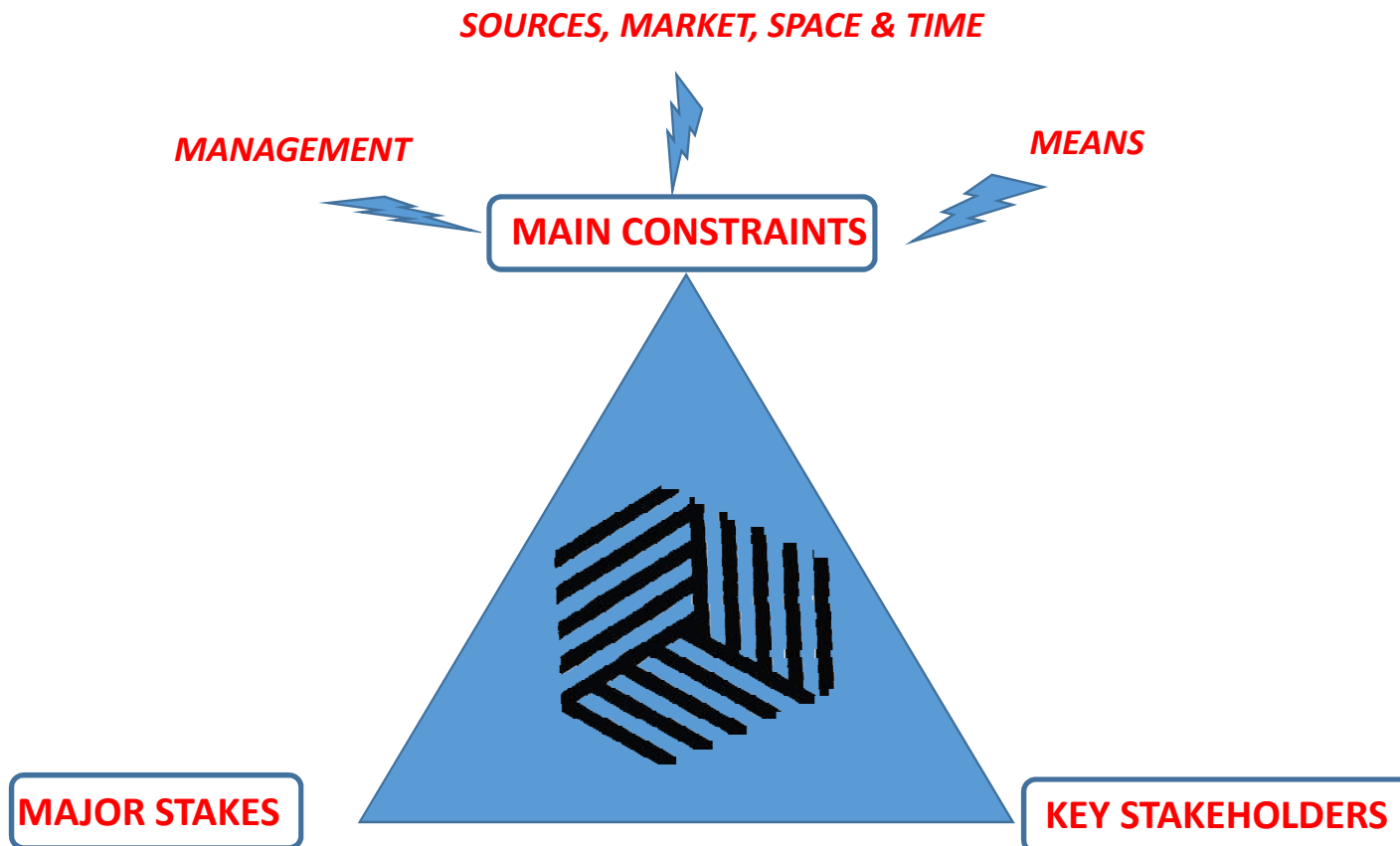
Mandatory: the integration of the systemic and the analytical dimensions of any situation



Adapted from:
Patrick Corsi

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Integrate and manage its 3 fundamental dimensions of the R&D challenges in a *systemic* way



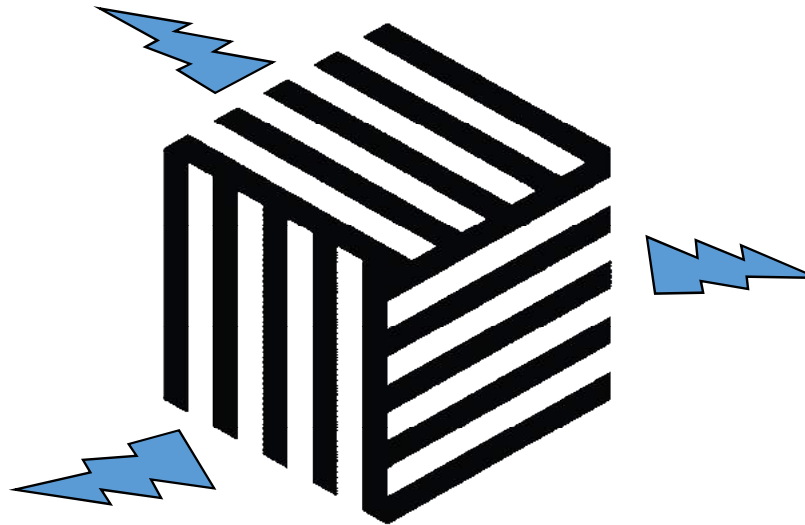
Integrate these dimensions of these R&D stakes in a *philharmonic* strategy

1. MAJOR CHALLENGES:

Company strategic choices	Production cost and market prices	Products availability ...	Present & future technological adequacy of products and production means	Human resources and their level of competency potential
---------------------------	-----------------------------------	---------------------------	--	---

2. KEY STAKEHOLDER GROUPS:

<u>« Regulators »:</u>
<u>Soci(et)al actors :</u>
<u>Customers & consumers</u>
<u>Economic and financial players</u>
<u>Specialized & « expert » actors:</u>



3. ESSENTIAL CONSTRAINTS

• ;
• :
• :
• :
• :
• :
• :
• :
• :
• :

On basis of this integrative analysis, build & materialize stepwise, coherent and sustainable strategic plans involving all stakeholders.

Main constraints

Main stakes

Stakeholders expectations

	Services publics et communautaires	Biens essentiels Alimentation, habitat, mobilité et sanitaires	Services sanitaires hôpitaux, cabinets médicaux, ambulances	Potentiel humain santé physique et mentale, sécurité, bien-être	Potentiel exorbitant gouvernements, police, armée, services civils, ONG
Acteurs politiques et administrateurs					
Acteurs sociaux (syndicats, ONG, ...)					
Citoyens					
Acteurs économiques et financiers					
Acteurs spécialisés : médicaux, intellectuels, média					

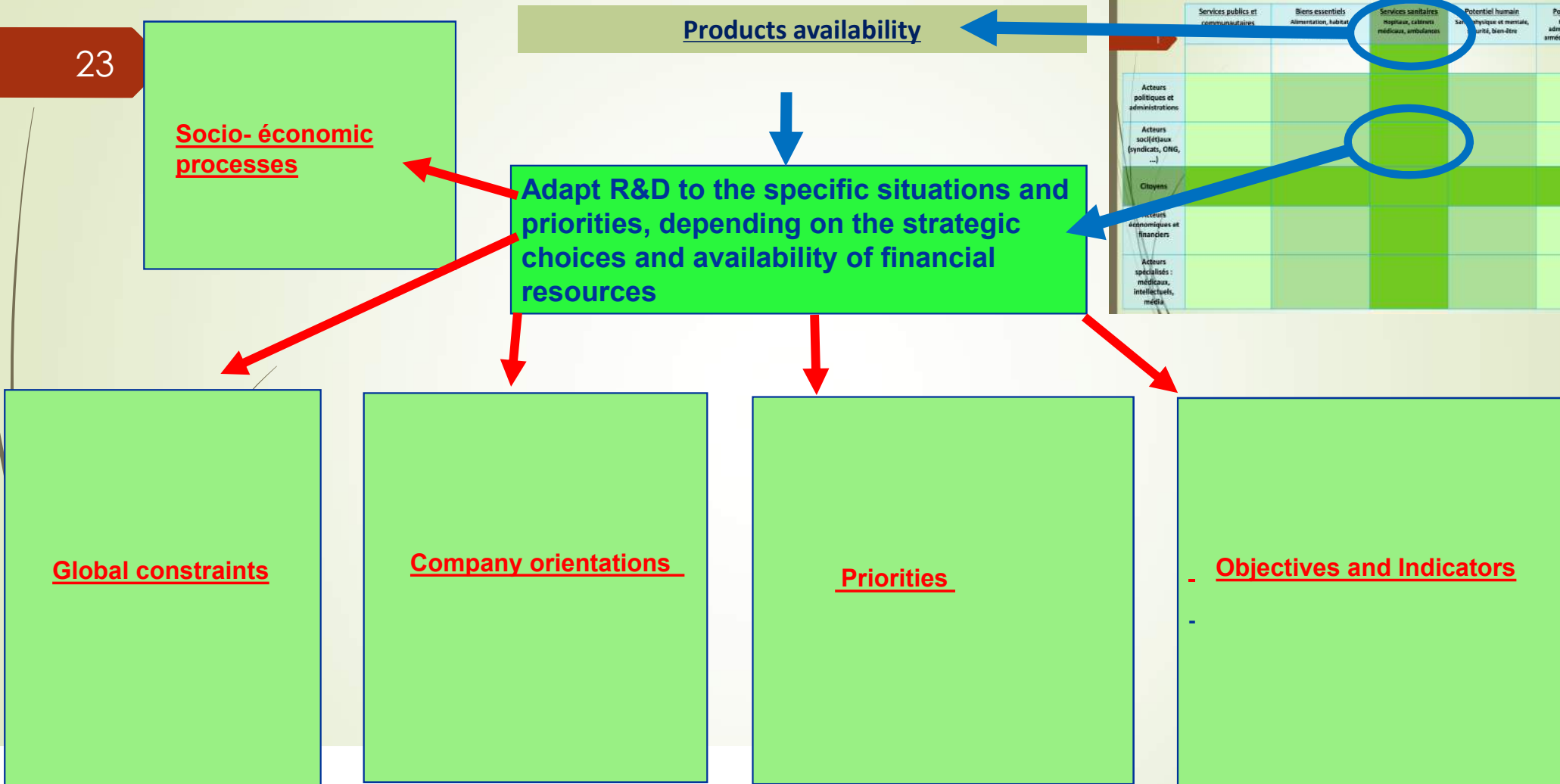
Actions, their indicators and follow-up with appropriate governance

Integrative analysis of the R&D stakes in crisis situation

STAKES  STAKEHOLDERS 	Company strategic choices and investments	Production costs and market prices	Products availability ...	Present & future technological adequacy of products and production means	Human resources and their level of competencies potential
	<i>Strategic choices including their long term economic, social and ecological sustainability</i>	<i>Ensure the competitiveness of the production costs</i>	<i>Ensure the availability of the products required by the market</i>	<i>Ensure the R&D investments to support the evolution of technologies and future needs</i>	<i>Ensure the R&D skills and competencies to face the evolution of products and production processes</i>
« Regulators »: international bodies, governments and administrations, lawyers,	Ensure (...)	Privilege (...)	Respond (...)	Adapt (...)	Negotiate (...)
Soci(et)al actors : unions, NGOs, federations, ...	Negotiate (...)	Explain (...)	Adapt R&D to the specific situations and priorities, depending on the strategic choices and availability of financial resources	“Solidarise” (...)	Collaborate (...)
Customers in their diversities and identities	Adapt (...)	Establish dialaog (...)	Respond (...)	Listen (...)	Respect (...)
Economic and financial players	Inform (...)	Structure (...)	Ensure (...)	Innovate (...)	Convince (...)
Specialized & « expert » actors: medical, intellectual, legal, media	Learn (...)	Integrate (...)	Contribute (...)	Collaborate (...)	Constitute (...)

Explore analytically each challenge at stake at the light of the main identified constraints

23



A philharmonic implementation of the integrated strategy enlightening positively and constructively the future for all stakeholders : the ONLY way to avoid a cacophony

The stakeholders, gathered around the matrix:

1. jointly **integrate** its three constituent dimensions;
2. Analyze their **structural, functional and temporal interactions**;
3. then **harmonize**, in the musical and philharmonic sense of the term, the points of view and the implications;
4. agree on coherent action programs integrated with their protocols, steps, monitoring indicators, follow-up and strict uniformized governance rules ;
5. **coordinate** to **implement them** in harmony and **communicate them** in an educational dialogue with all the stakeholders concerned.



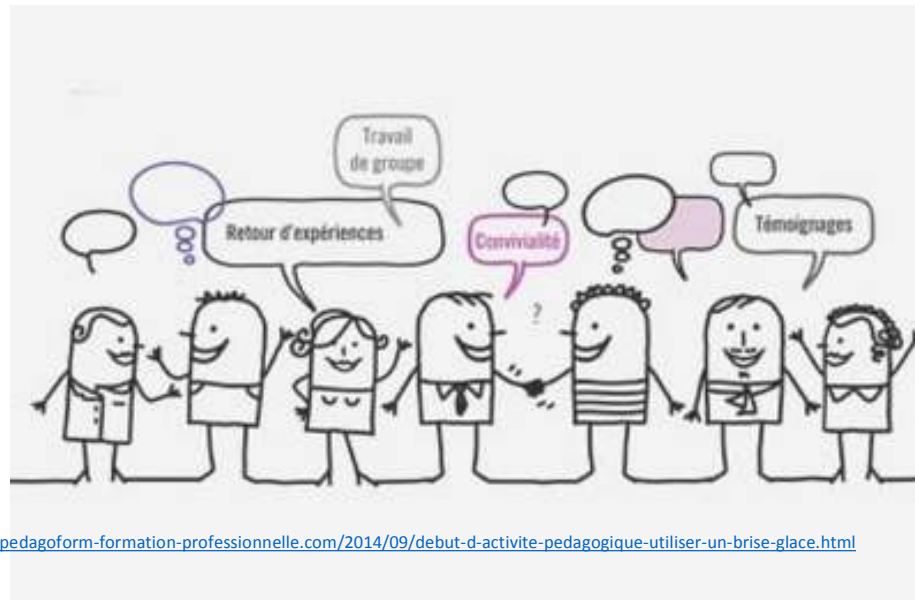
How to succeed ?



**« Associate with the pessimism of the intelligence,
the optimism of the will! »**



(Romain Rolland, taken up among others by Antonio Gramsci)



<http://www.pedagoform-formation-professionnelle.com/2014/09/debut-d-activite-pedagogique-utiliser-un-brise-glace.html>

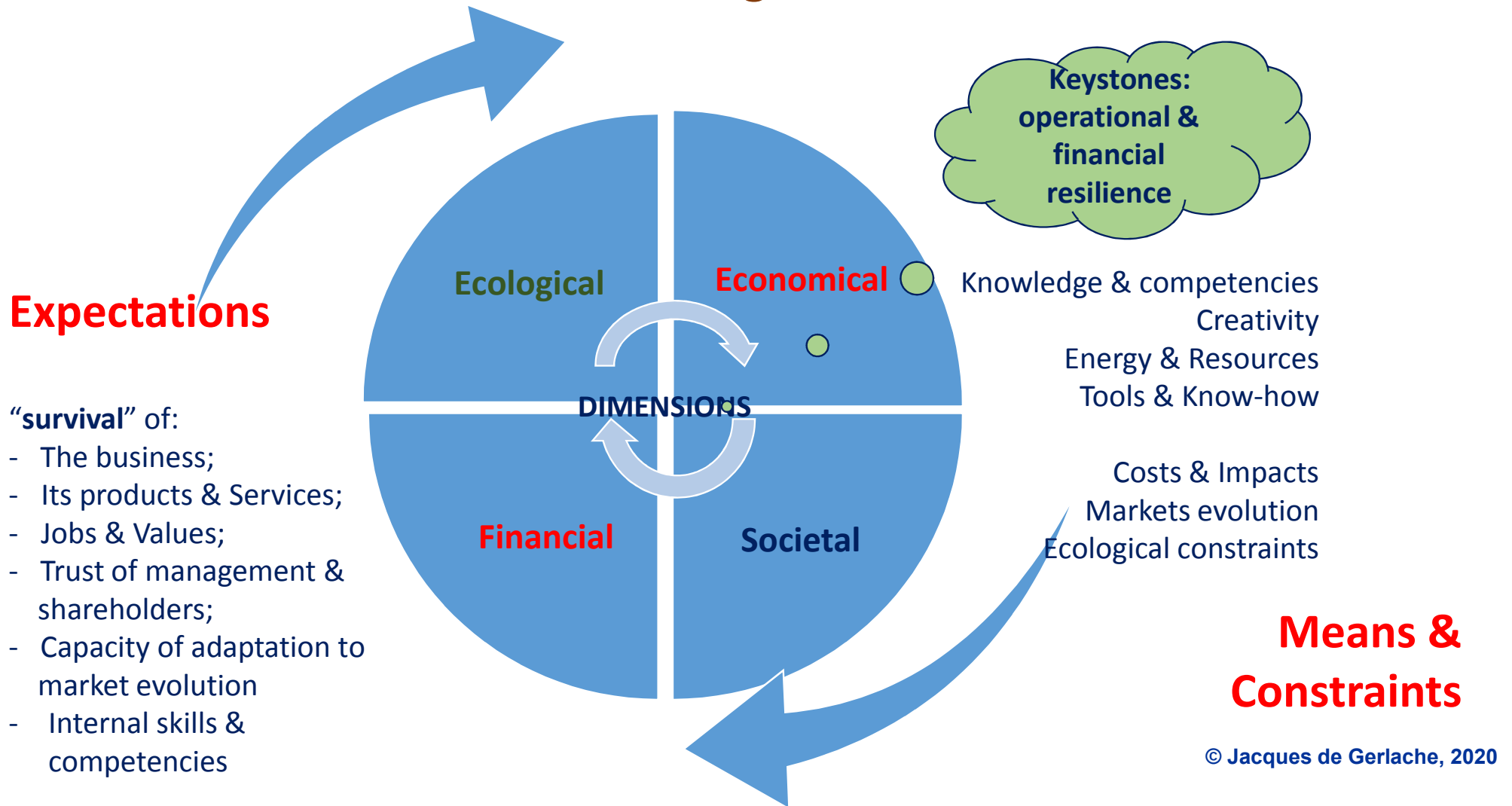
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Appendix

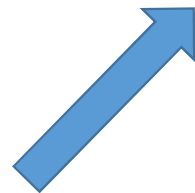
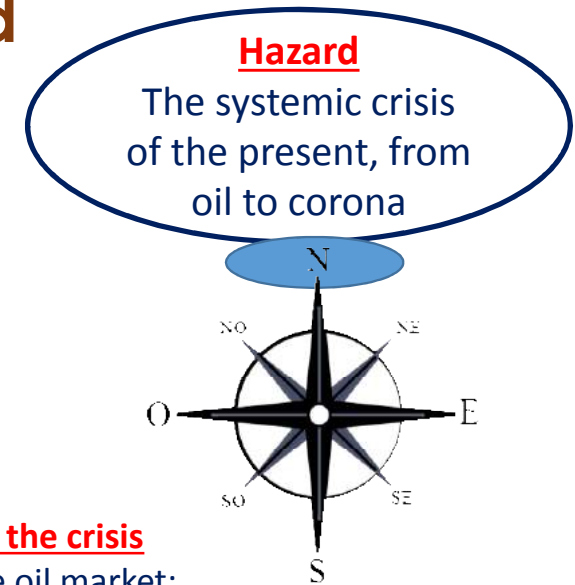
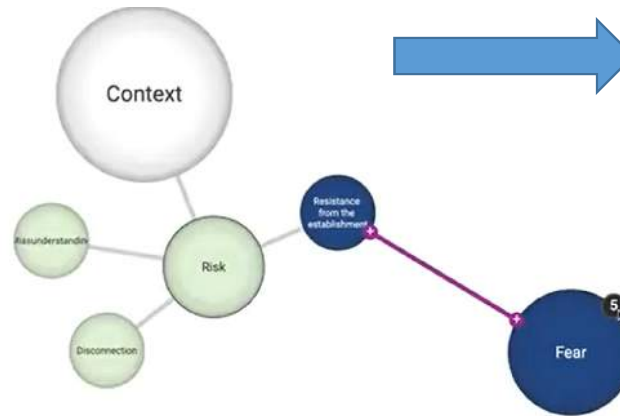
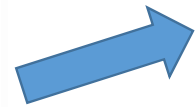
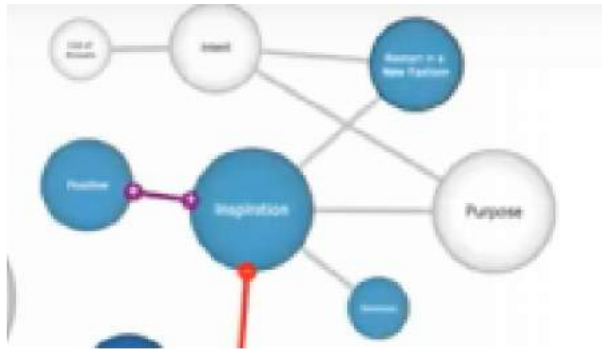
Some more detailed slides of the keys steps,

just to help to inspire its application

A resilient management of R&D: by the systemic integration of all its eco-no-lo-gical dimensions



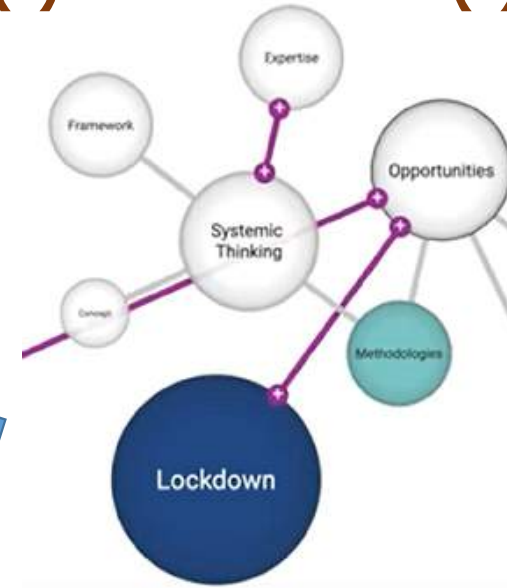
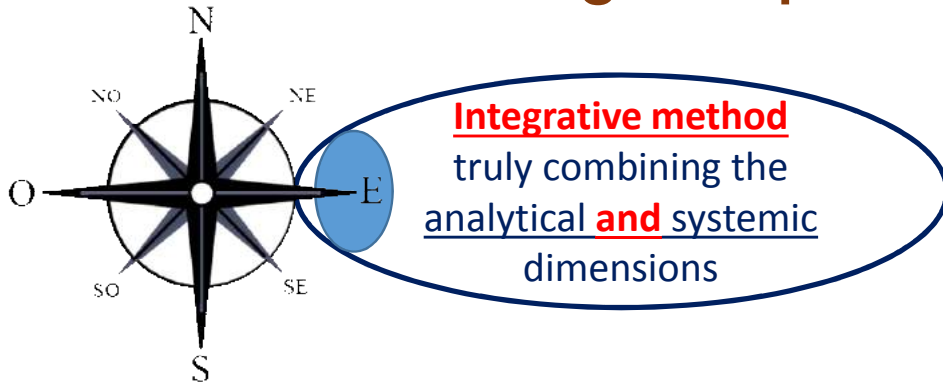
First pole : the intrinsic hazard



Some of the elements of the context of the crisis

- The actual geopolitical context of the oil market;
- The competition between fossil fuels extraction players
- The excess of offer versus demand
- Crude oil market prices
- Technological innovations through the whole life cycle.
- Energy transitions
- Carbon neutrality objectives at 2050
- General economic situation
- Corona virus crisis and its consequences
- ...

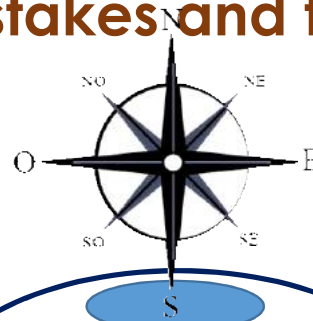
Second pole : integrating the dimensions of risks resulting from potential exposure(s) to the hazard(s)



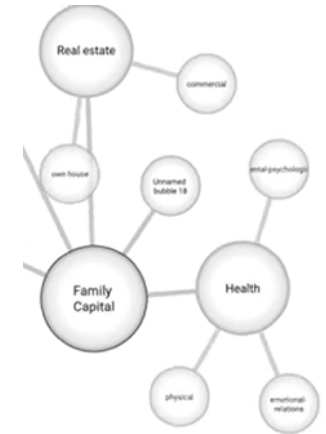
Among the elements of integrative methodologies

- Bring first the basics of systemic intelligence and complexity management at company level : entities, business units, employees and competencies, global organisation ;
- Bring this holistic and systemic intelligence in a “*Economic and Technological Transition Taskforce*” connecting internal market, financial, R&D, technological and managerial stakeholders ;
- Bring together also the most “open minds” among these various stakeholders ;
- Promote reconnexions among entities to integrate talent, future evolutions and needs, eventually **encapacitation**

Third pole : the essential strategic decisions to manage the stakes and the associated

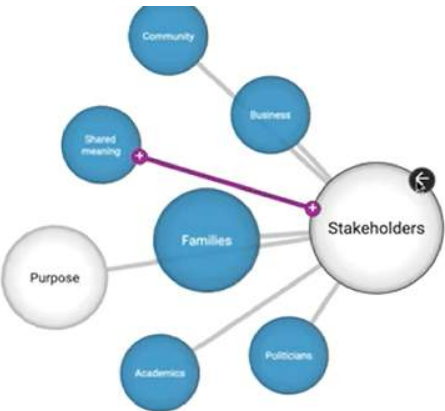


Essential stakes & constraints
to manage jointly



Identify the potential essential strategic decisions to manage between risks and constraints

- Answering immediate economic and market pressures ;
- Adapting production and business activities;
- Facing financial constraints pressure on capital value;
- Reorganising the global activities
- Anticipating future staks
- Making strategic choices at company and sector levels ;
- Preserving the expertise of human resources and knowledge
- Managing associated social stakes
- Making the link with other ecologicalEnergy transitions related to the climate crisis;culture;
- Managing the colateral effects of the coranvirus crisis on the oil and other crisis ...
- ...



Fourth pole : take into account all involved stakeholders opinions and constraints in the operational actions plans

Identify the key stakeholders involved:

« **Regulators** »: international bodies, governments and their administrations, lawyers, ...

Soci(et)al actors : unions, NGOs, federations, ...

Customers in their diversities and identities

Economic and financial players

Specialized & « expert » actors : scientific, technological, HSE, marketing, lobbies, ...

- **Organise their constraints:**
- A **robust R&D strategy** with new diversity enabling new value chains;
- **B2B dynamics to connect** with all categories of **stakeholders**, crossing used resources and excellences together;
- **Mutualize intelligence** to protect “vital functions” of the operations ;
- **Bring new coherence** through new business models and structures;



Identify and integrate their expectations:

- Relative to risks and safety measures adopted.
- Relative to the impact on their own stakes
- ...

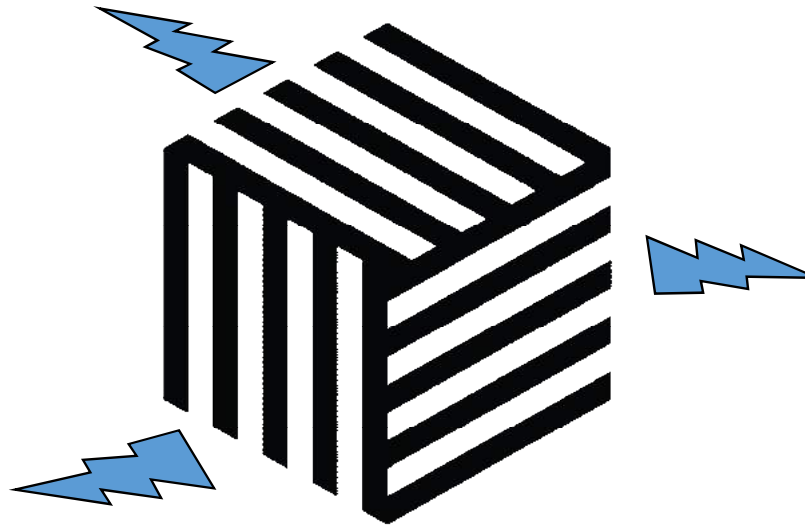
Integrate these dimensions of these R&D stakes in a *philharmonic* strategy

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Soci(et)al actors : unions, NGOs, federations, ...
Customers in their diversities and identities
Economic and financial players
Specialized & « expert » actors : medical, intellectual, legal, media



3. ESSENTIAL CONSTRAINTS

- Limits of present socio-economic models;
- Excessive commercialization and globalization of the economy;
- Lack of systemic and integrative visions;
- Immediate economic and market pressures ;
- Appropriateness of possible strategic choices at company and sector levels ;
- Need of anticipation & preparedness to potential global energy crisis
- Energy transitions related to the climate crisis; culture;
- Colateral effects of the coronavirus crisis...
- ...

Explore analytically each challenge at stake at the light of the main identified constraints

33

Socio- économique processes

- Competencies available ;
- Places & work conditions ;
- Supply chain ;
- Production ;
- Chaînes logistiques ;
- ...

Global constraints

- Legal constraints
- Present market constraints
- Future market constraints
- Competition & Customers constraints
- Technical constraints
- Operational constraints
- Employment & social constraints
- Innovation pressure constraints
- ...

Company orientations

- At Strategic level
- At juridical level
 - Internal stakes
 - External stakes (National international);
 - Existing contracts ;
- At administrative management level
 - Corporate management
 - Social & Human resources management
 - Business units managements
 - Support entities : R&D ,
 - production, marketing & sales

Products availability

Adapt R&D to the specific situations and priorities, depending on the strategic choices and availability of financial resources

Priorities

*Importance
Their rends
Performance*

- Present budgetary constraints
- Present & future ressources needs
- Adaptation capacity to market needs
- Shareholders choices
- ...

Objectives and Indicators

- Market evolutions
 - Origin
 - Quantities
 - Prices
- Product evolution
- Uses
- Technological evolution
- ...

	Services publics et communautaires	Biens essentiels Alimentation, habitat, mobilité et sanitaires	Services sanitaires hôpitaux, cabinets médicaux, ambulances	Potentiel humain santé physique et mentale, sécurité, bien-être	Potentiel éducatif gouvernements, administrations, police, armée, services civils, ONG
Acteurs politiques et administratifs					
Acteurs sociaux (syndicats, ONG, ...)					
Citoyens					
Acteurs économiques et financiers					
Acteurs spécialisés : médicaux, intellectuels, média					