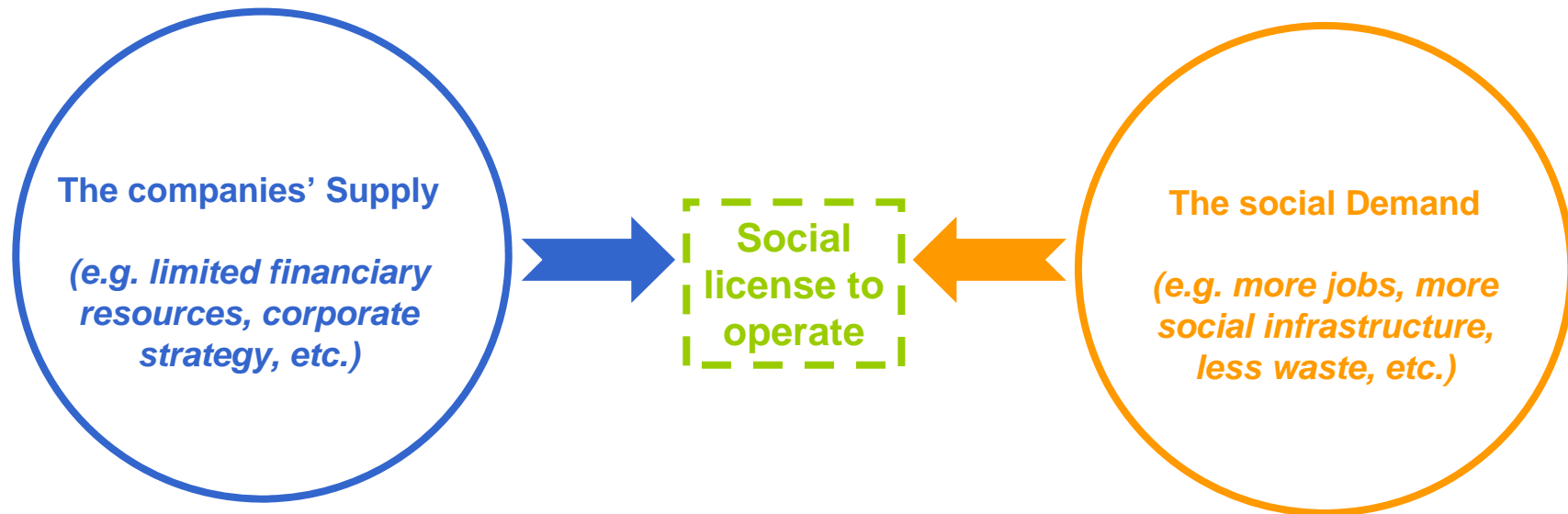


International context of mining

- > Strong demand worldwide but... :
 - Strongest competition
 - Highest expectations of financial institutions (Equator Principles, etc.)
 - Highest expectations of governments (e.g. Camp Caïman in French Guyana)
 - Growing opposition of civil society :
 - on sites (Grasberg, Porgera, Yanacocha)
 - and at the global scale (No Dirty Gold, Unearth Justice, etc.)

The « social license » as a match of the supply and the demand



- > Issue : developing tools enabling to find an agreement between companies and their stakeholders concerning the social license's clauses
- > These tools must :
 - **Simplify and make understandable complex issues**
 - **Enable people to speak together and negotiate**
 - **Support decision making**

Research work

- > Defining and applying an approach for assessing mining projects in terms of SD
- > Partnership between UVSQ and BRGM (2004 – 2007)



How to evaluate?

Needs

Indicators that are strong, measurable and transferable

Indicators that respond to stakeholders expectations and sites' differentiations

Sources

International initiatives

▶ Top / Down

Actors' dialogue

▶ Bottom / Up

Limits

Lack of realism and of social legitimacy

Lack of transferability (non scientific, non-normative approach)

Top-down / bottom-up approach

Publications, firms annual reports, codes... :
Indicators systems elaborated from academical hypothesis and international standards

Top-Down



Exploitable, accepted and understood indicators



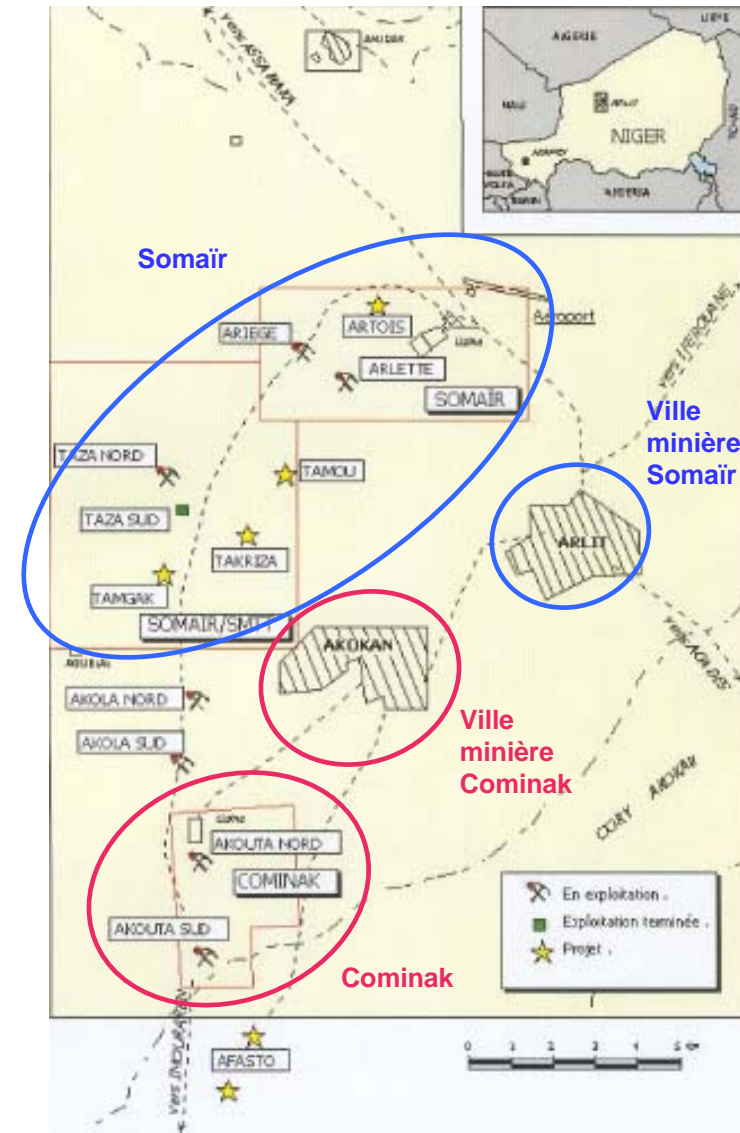
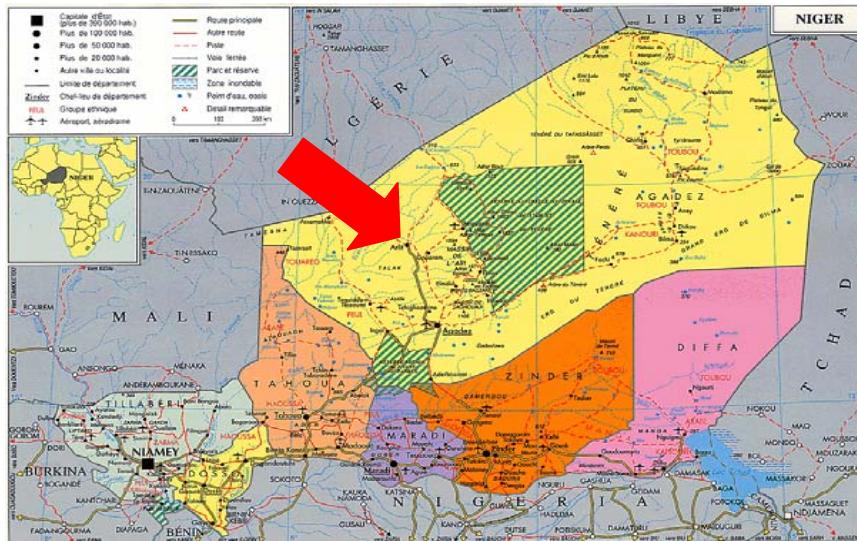
Bottom-Up

Work groups of sites' stakeholders :
Indicators' propositions built from local perceptions of issues

Application to the Uranium mines in Arlit (Niger)



Geographic location

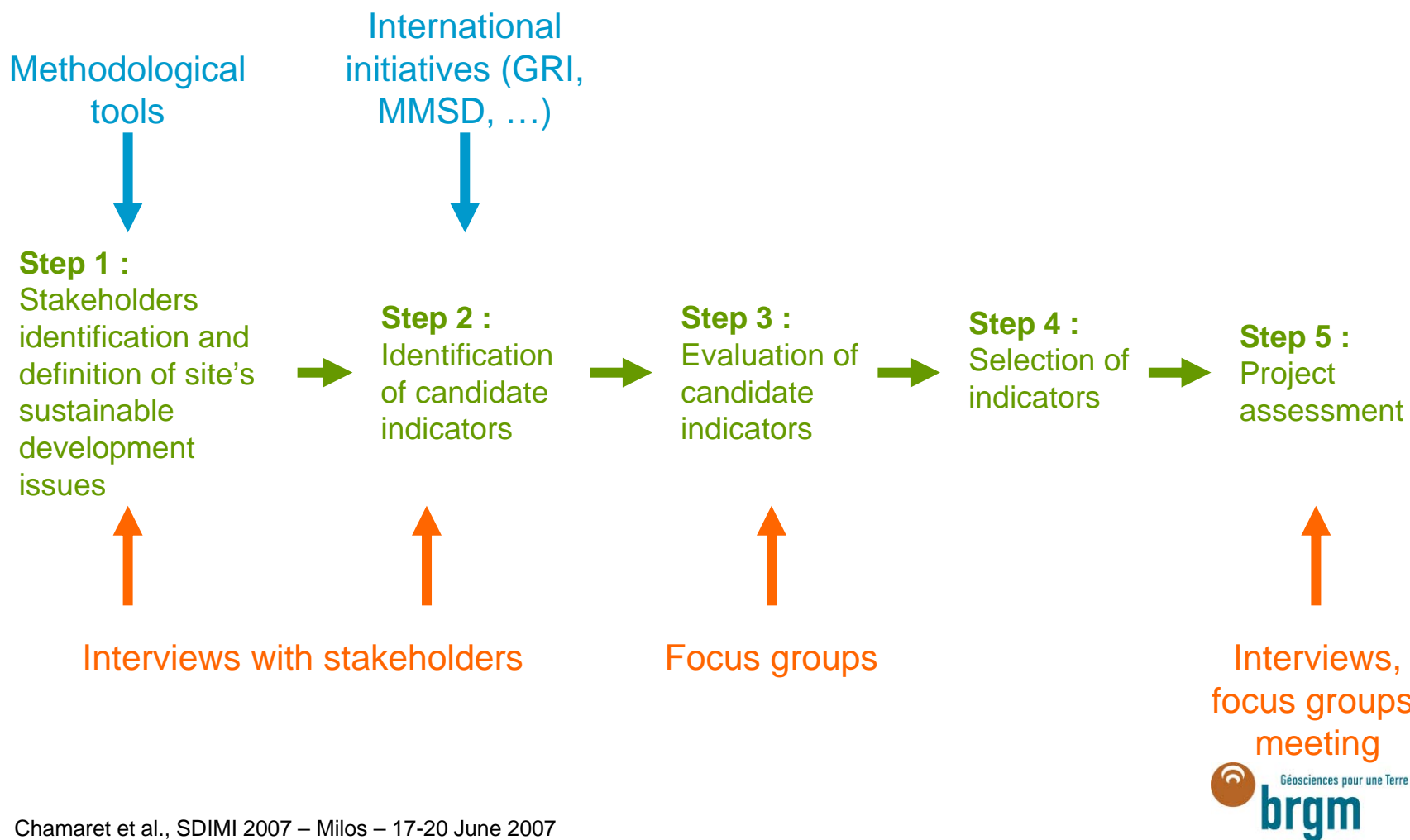


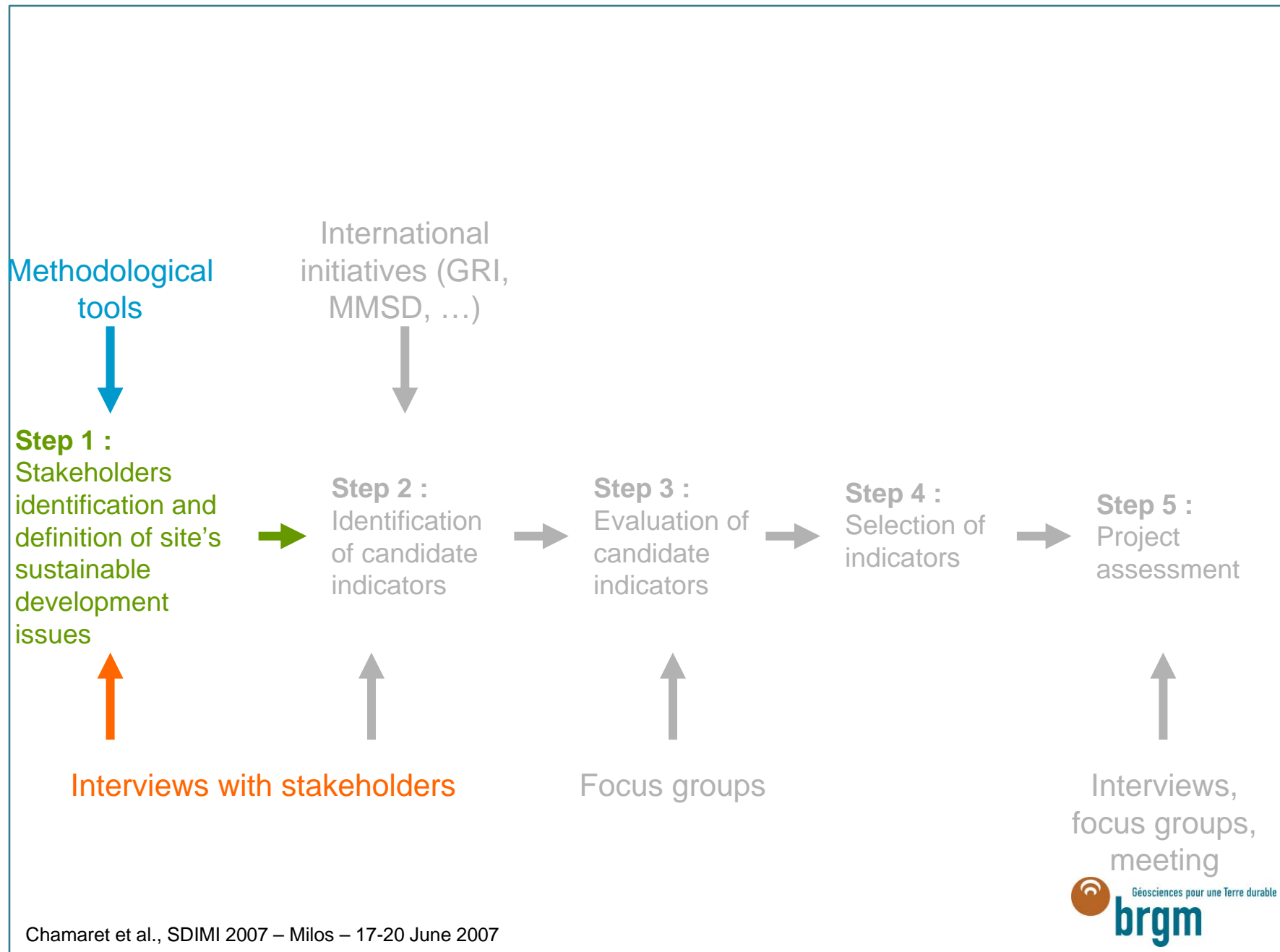
Chamaret et al., SDIMI 2007 – Milos – 17-20 June 2007

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Origny

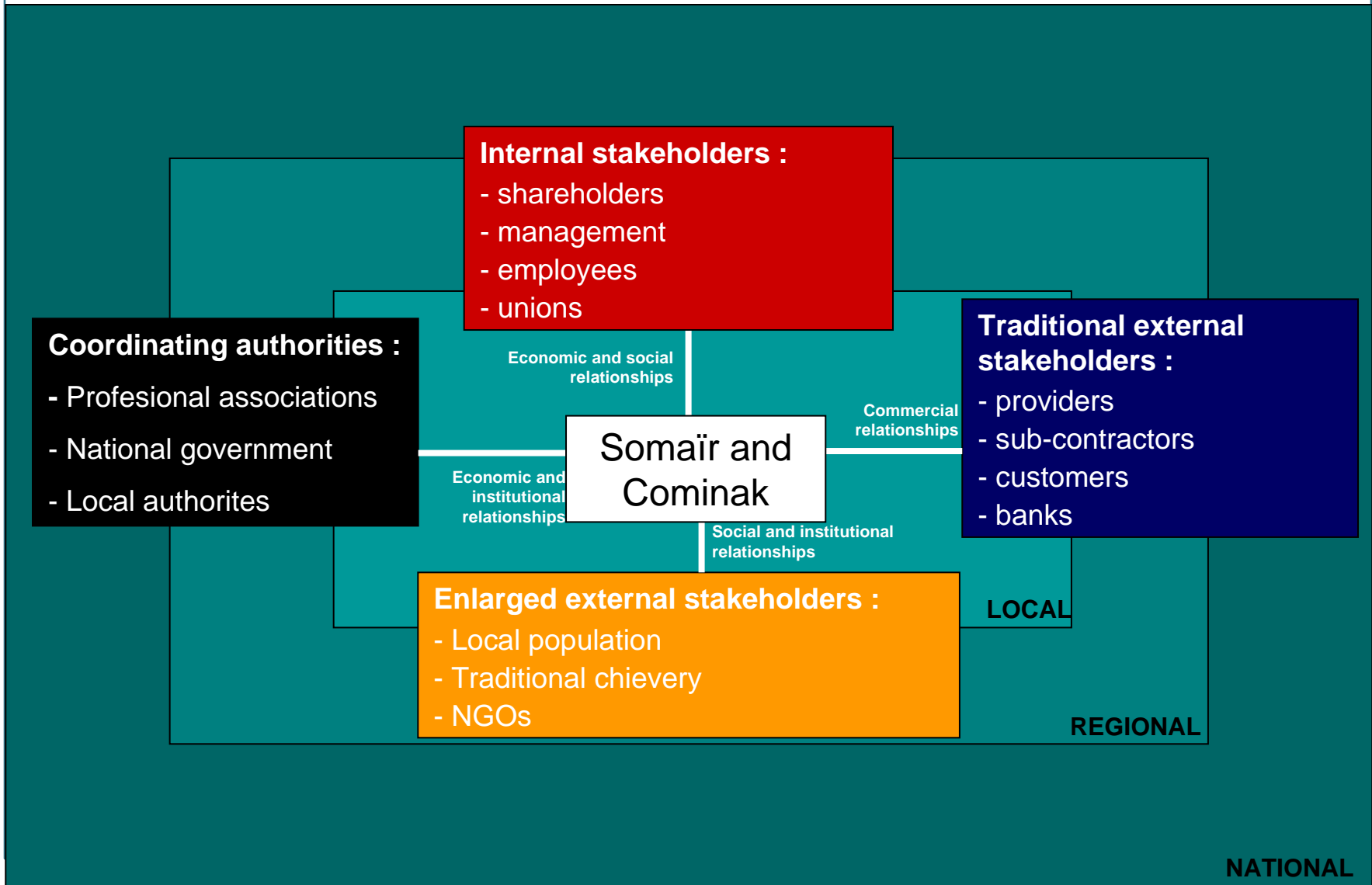
Application of the top-down / bottom-up approach





Step 1 : Problem's structuring

1.1. Stakeholders' typology



Step 1 : Problem's structuring

1.2. Issues' definition

> Two main questions :

- According to you, what are the impacts, your expectations or your concerns related to mining activity?
- What would be the parameters you would use for measuring these aspects?



> 56 meetings with stakeholders (about 70 people) :

- Internal stakeholders : 6 interviews in Niamey and 16 in Arlit
- Traditional external stakeholders : 2 interviews in Arlit
- Enlarged external stakeholders : 1 interview in Niamey and 15 in Arlit
- Coordinating authorities : 7 interviews in Niamey and 9 in Arlit

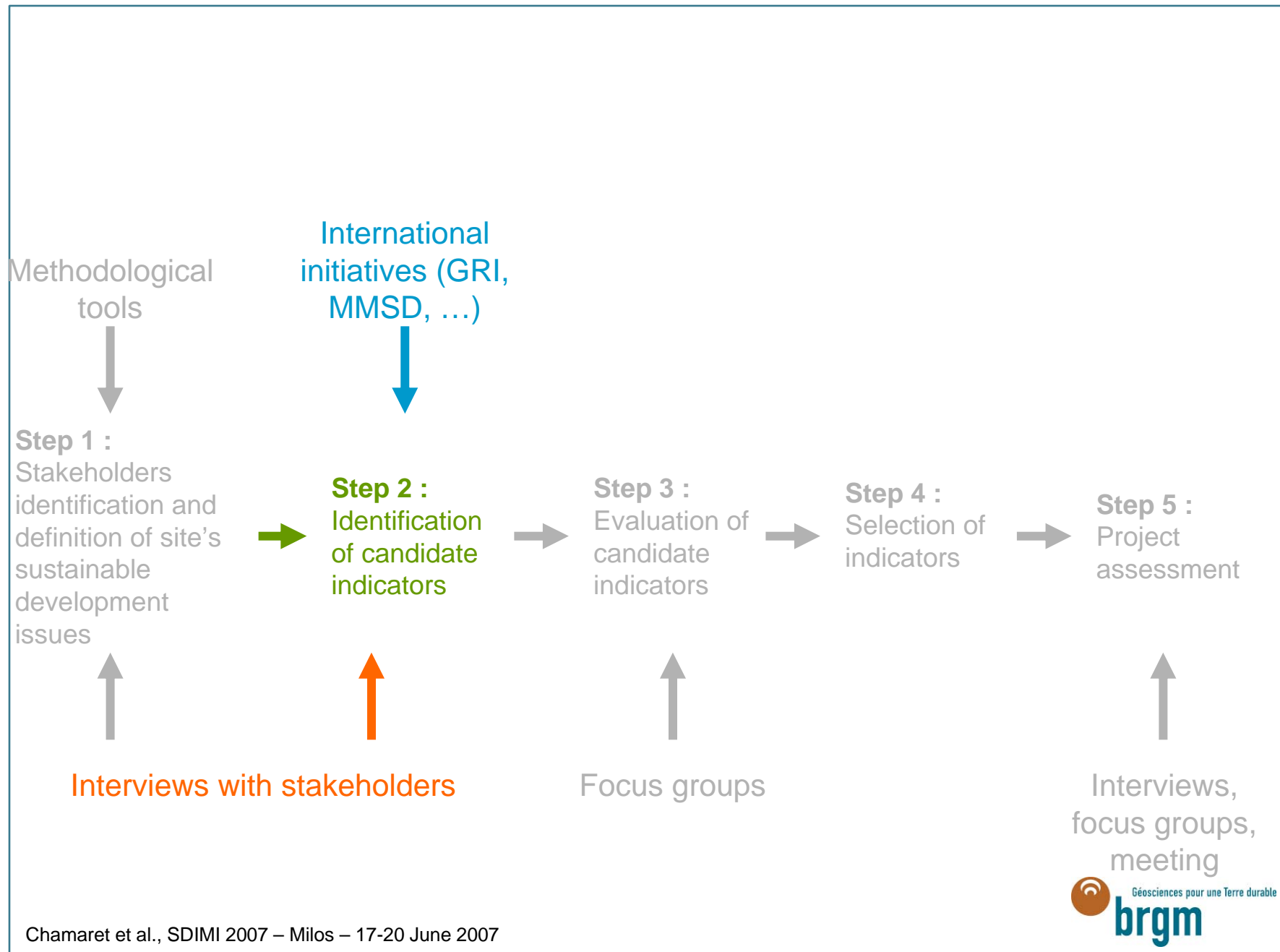
Step 1 : Problem's structuring

1.3. Issues' analysis and organisation

- > Speech analysis from interviews' reports :
 - At the national, regional and local scales
 - According to stakeholders' categories

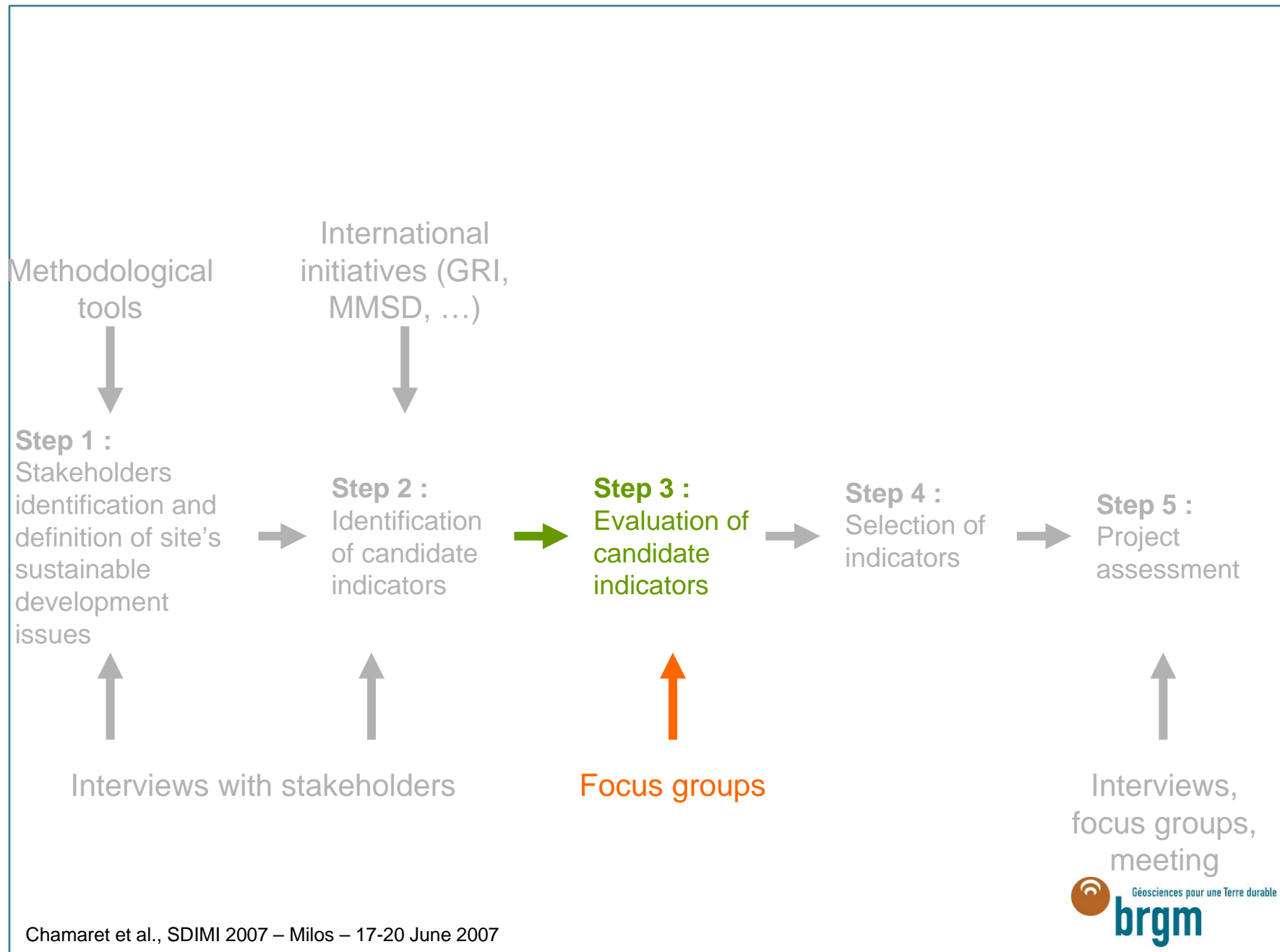
- > Organisation in 9 categories combining economical, social, environmental and political issues :
 - Project's economic performances
 - Benefits redistribution and contribution to national economy
 - Local community
 - Workplace health and safety
 - Work and equity
 - Wages, benefits and work conditions
 - Environment management
 - Resources and products management
 - Environmental impacts





Step 2 : Identifying candidate indicators

- > Objective : defining about 100 candidate indicators that respond to identified issues
- > Three main sources:
 - **Proposals from stakeholders** : 15 indicators
 - **Company's indicators** : 49 indicators for the environmental and social spheres
 - **Sector's indicators** : selected from a database with about 1 000 indicators from 16 international initiatives (see Chamaret & Récoché, SDIMI 2005)



Step 3 : Assessing candidate indicators' relevancy

> Objectives:

- Reduce the number of indicators to get a more manageable set
- Reinforce stakeholders' support to indicators

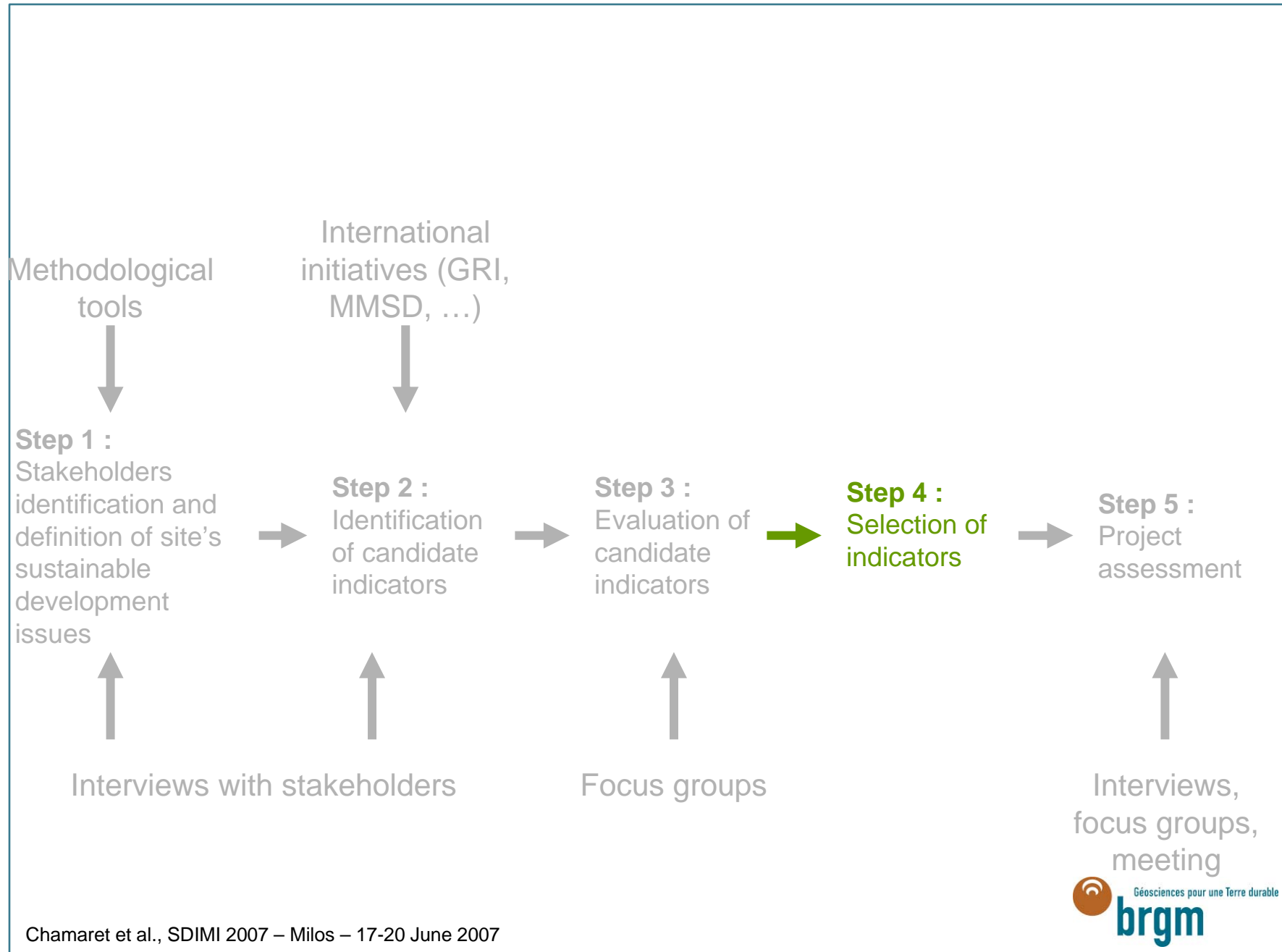
> 15 groups of stakeholders:

- Internal stakeholders : 6 groups
- Traditional external stakeholders : 1 group
- Enlarged external stakeholders : 2 groups
- Coordinating authorities : 6 groups

> Constraint:

- To get, for each group, a consensus for selecting 5 indicators for each category
- Encourage new proposals if necessary

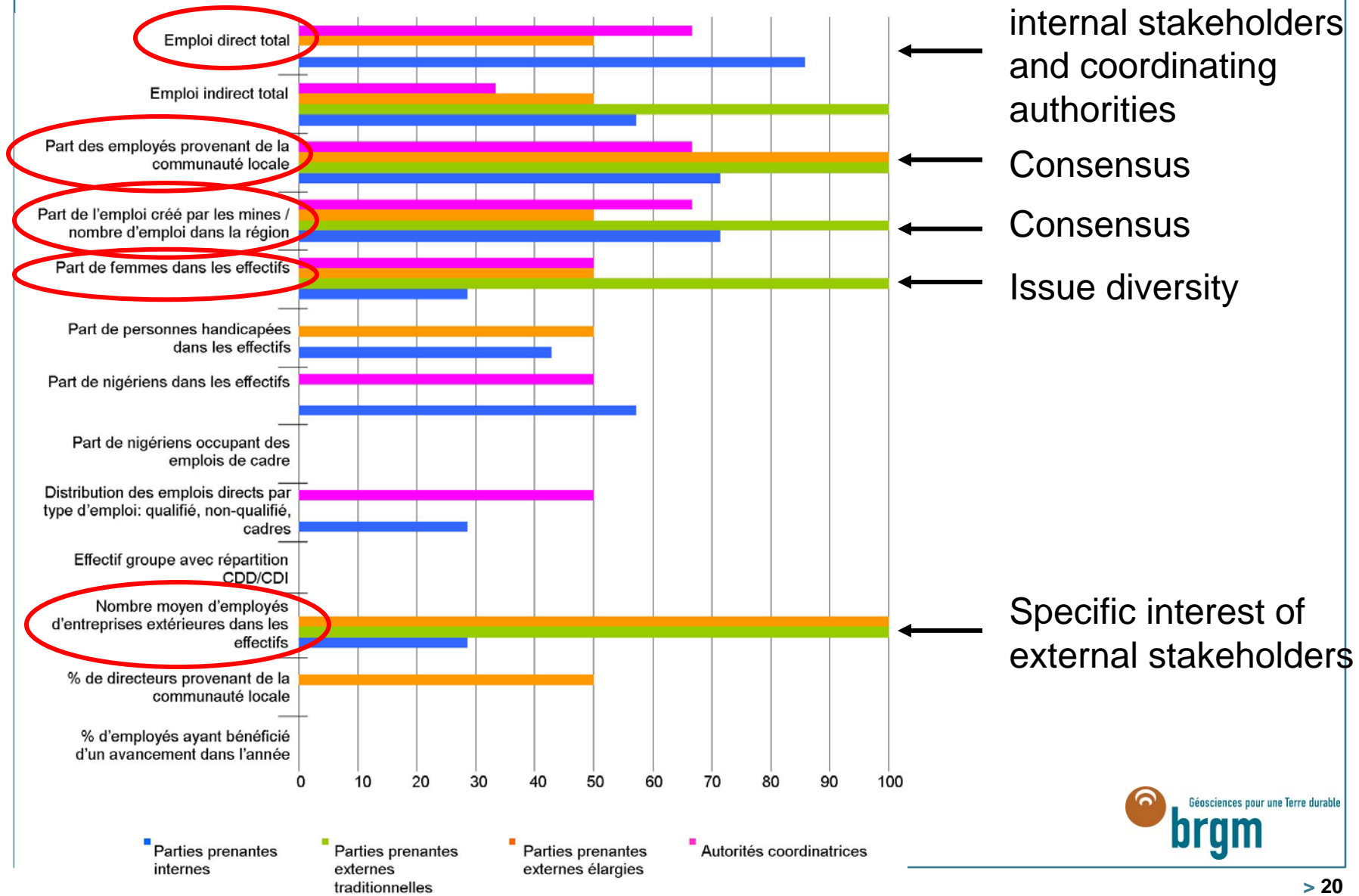


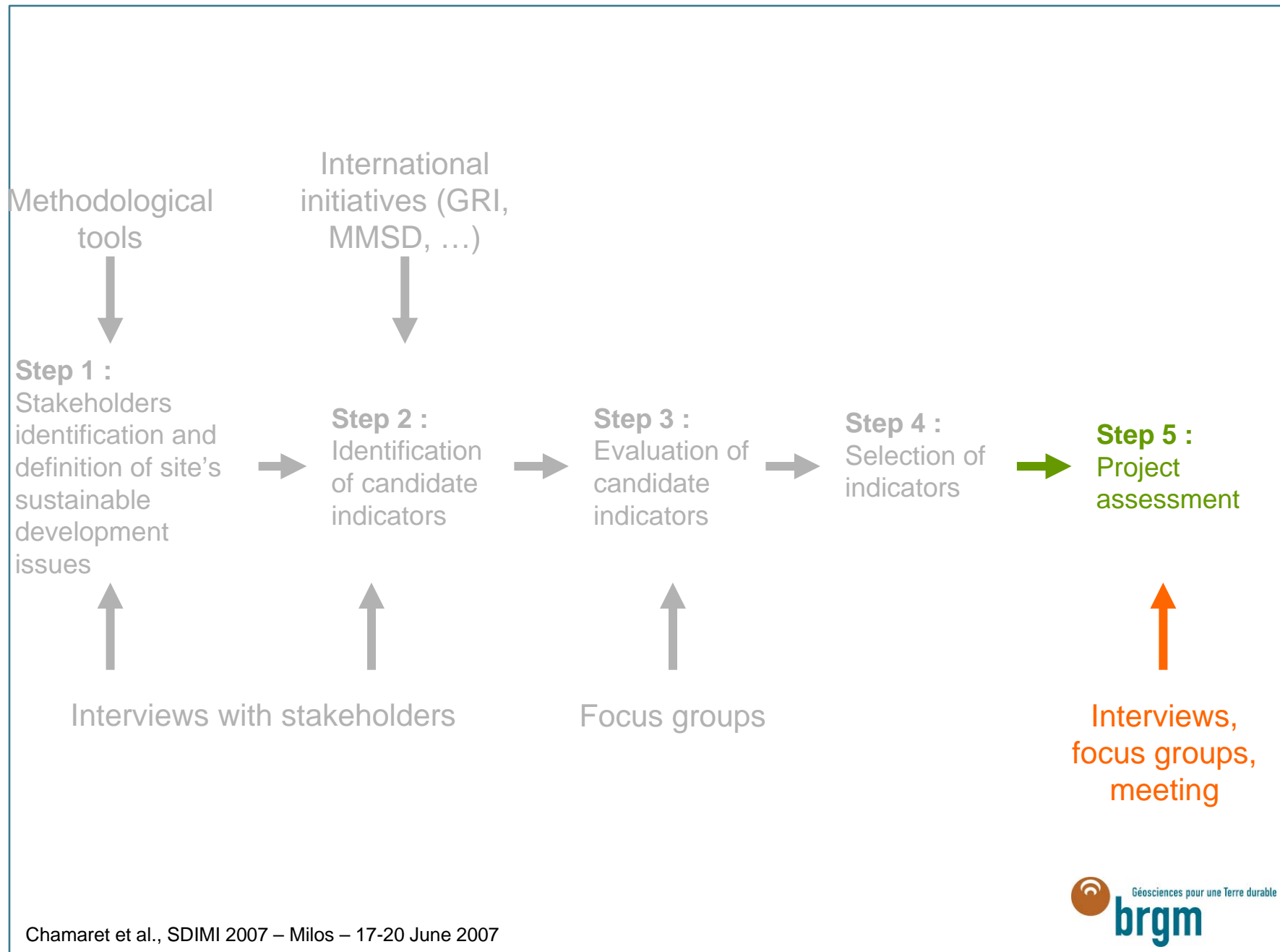


Step 4 : Selection of indicators : the representative diversity principle (1)

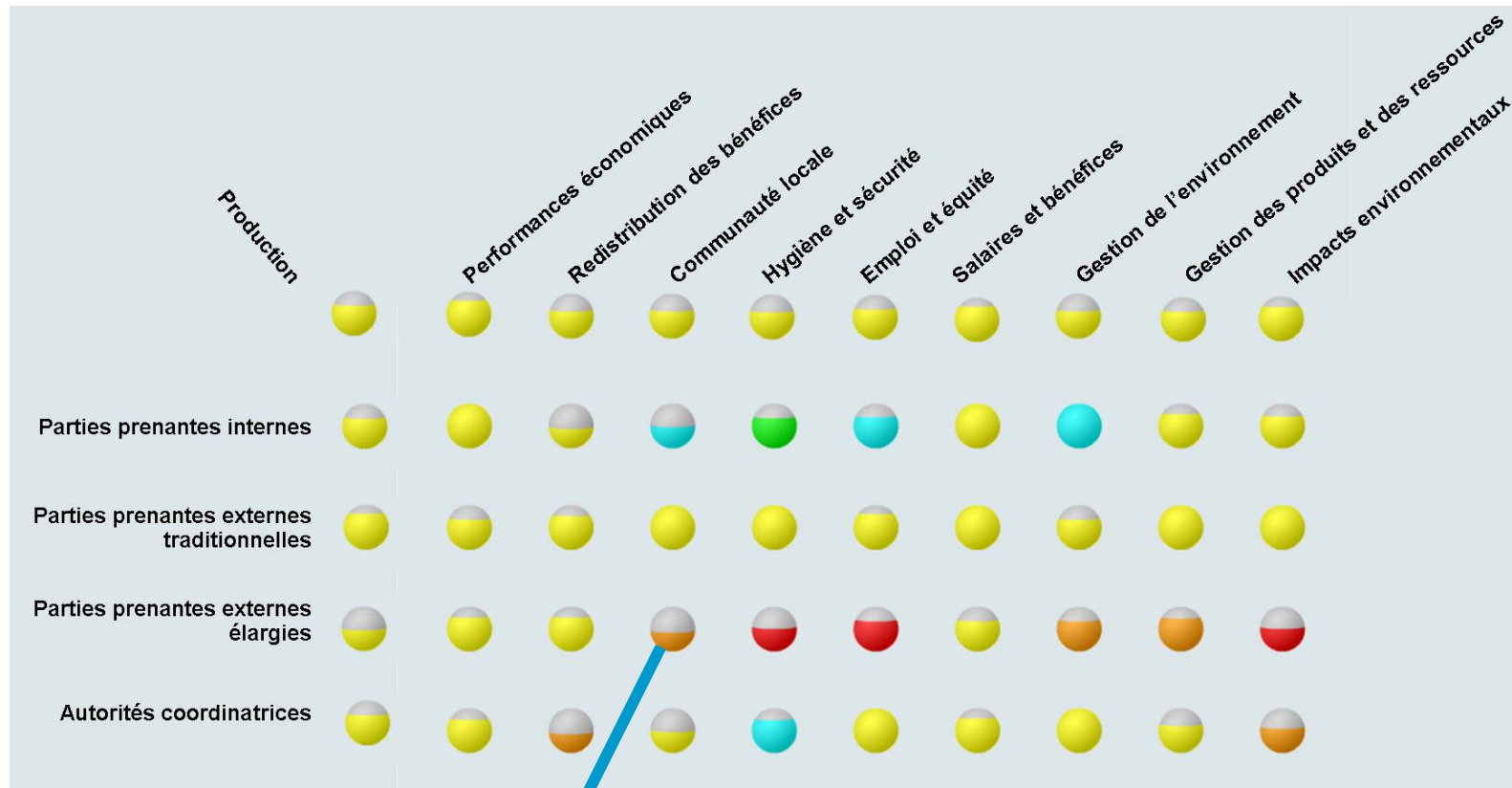
- > Assessment should reveal all opinions (and not only the majority)
- > Assessment should reveal the diversity of issues associated to the project
- > Three rules for indicators selection for each issue category :
 - Finding indicators that make consensus
 - Identifying stakeholders' specific interests
 - Revealing issue diversity

Step 4 : Selection of indicators : the representative diversity principle (2)





Step 5 : Project assessment trough the Deliberation Matrix



évaluation
 Issue : 3.Com.Lc
 Actor : 3.PPEE
 Cycle vi : Prod

foire aux indicateurs

libellé de l'indicateur	valeur	importance
Dose com loc	[Bar chart]	100 forte
Hop miniers	[Bar chart]	100 forte
Invest proj comm	[Bar chart]	100 forte
Plaintes	[Bar chart]	75 forte
Scolarisation	[Bar chart]	100 forte

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Deliberation Matrix : Three levels of utilisation

> 1st degree: as project evaluation

- Picture of the current situation

> 2d degree: as negotiation tool

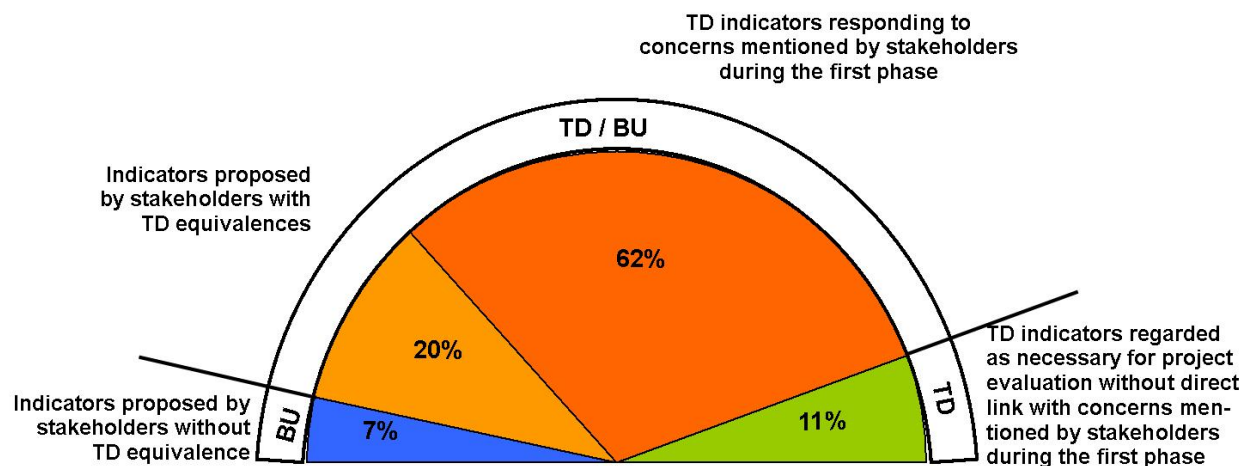
- Objective : “greening the Matrix”, viz. agreement on the terms of the social license

> 3rd degree: as decision support tool

- Collective agreement on which actions to carry on (viz. education, AIDS, roads, etc.)

Conclusions

- > Real **complementarities** between top-down and bottom-up approach
- > **Simplification** of complex issues related to SD
- > **Structuring approach**: definition of a shared vocabulary/vision, organizing diversity



Conclusions

- > Negotiation made possible through **empowerment and involvement** of stakeholders
 - **Strongest project acceptability and risks management**
- > **Adaptable** to each type of mining project and at all **mine cycle phases**
- > **Condition:** stakeholders' **good will to dialogue and negotiate in a transparent and deliberative way** (and particularly companies)