A Framework for Clarifying the Overall Scope and Meaning of Integrated, Triple Bottom-Line and Sustainability Assessment

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Introduction

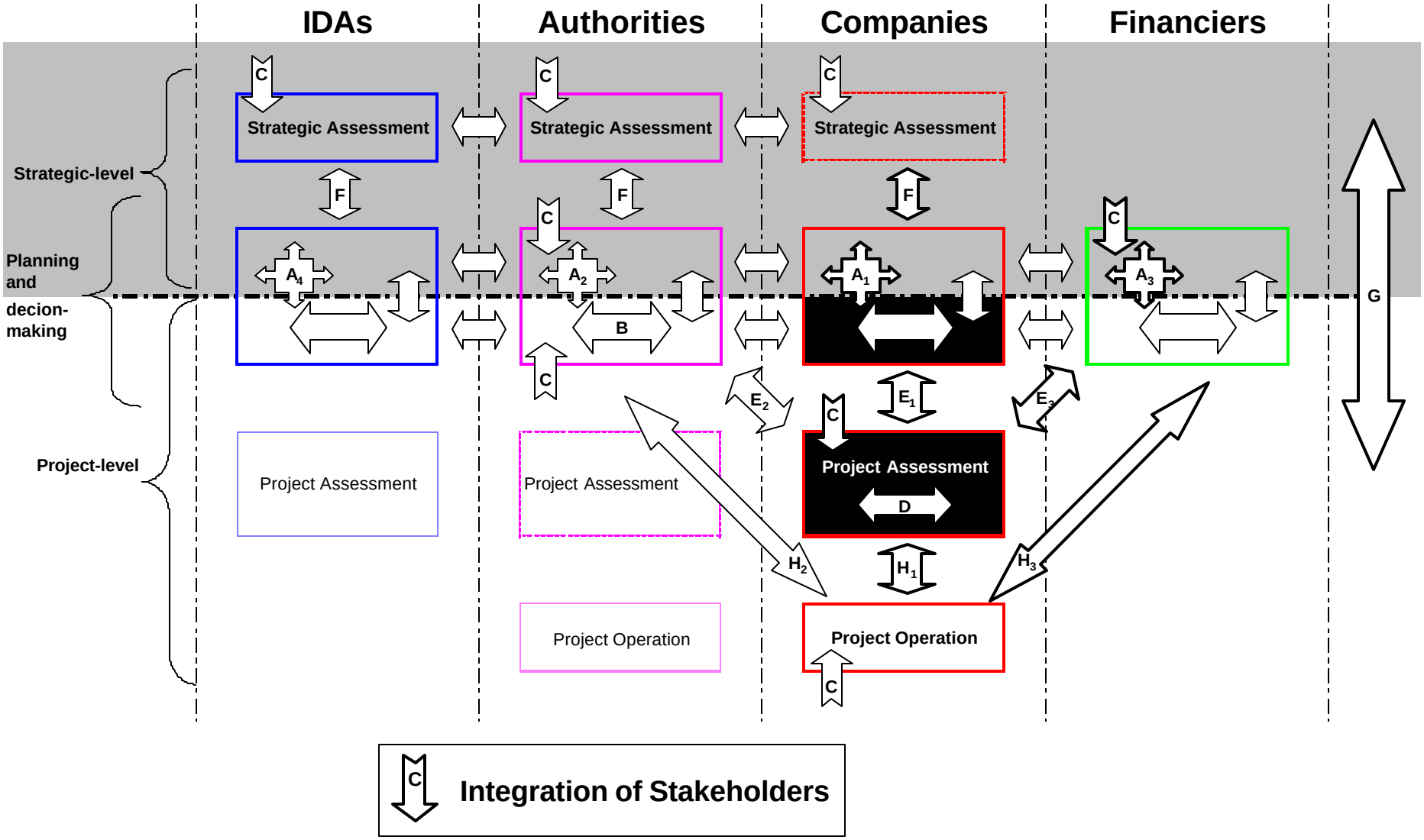
- **Research question:** How should the assessment of mining projects be undertaken to ensure that the overall planning and decision-making process is directed towards achieving sustainable development?

  [SD-directed Assessment]

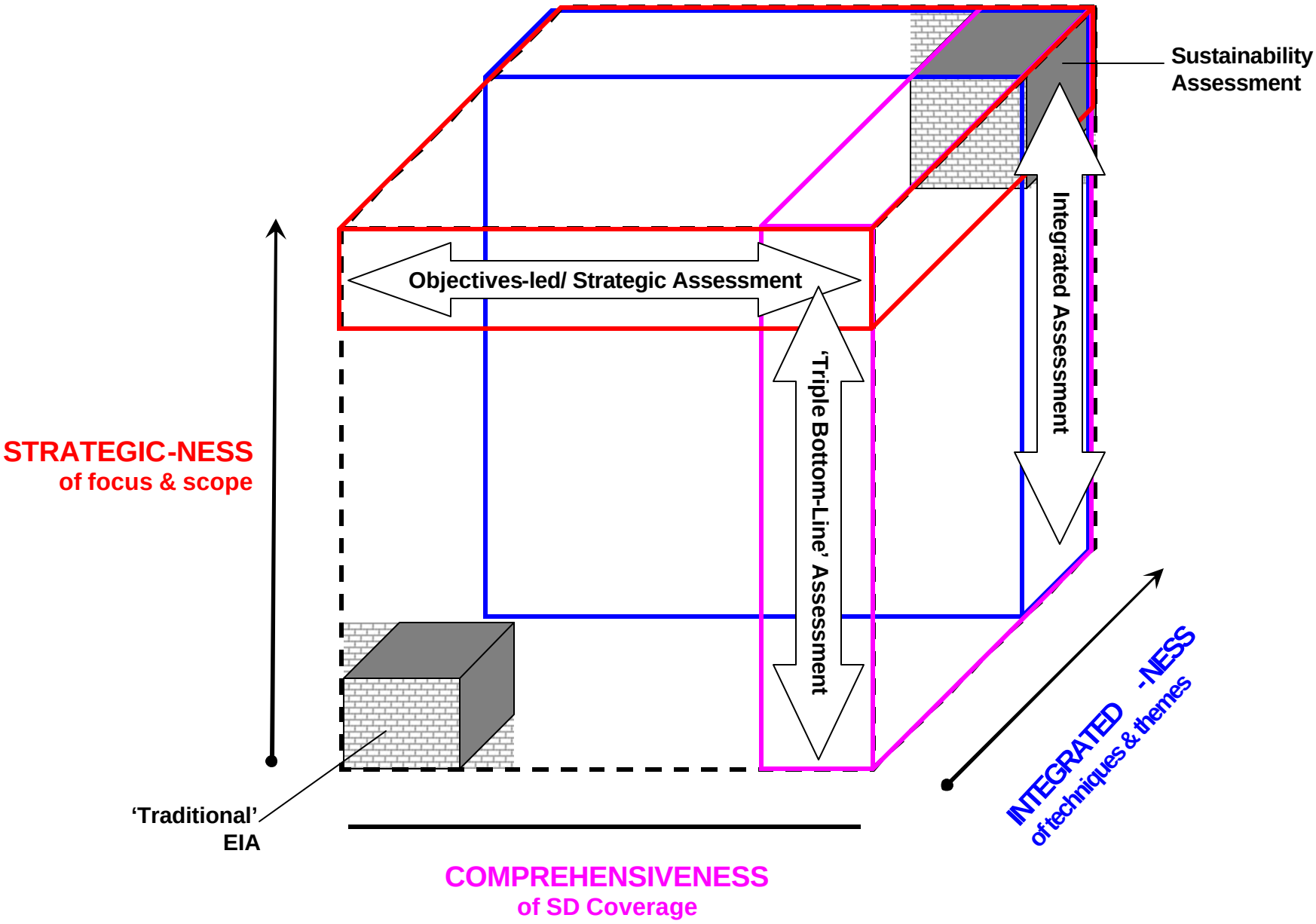
- **Literature review:** What features are generally promoted for improving the SD-directedness of assessments?

- **Confusing terminology:** Integrated Assessment, Sustainability Impact Assessment 3-E impact assessment and TBL Impact Assessment, SD 'sharpened' EIA etc. etc.

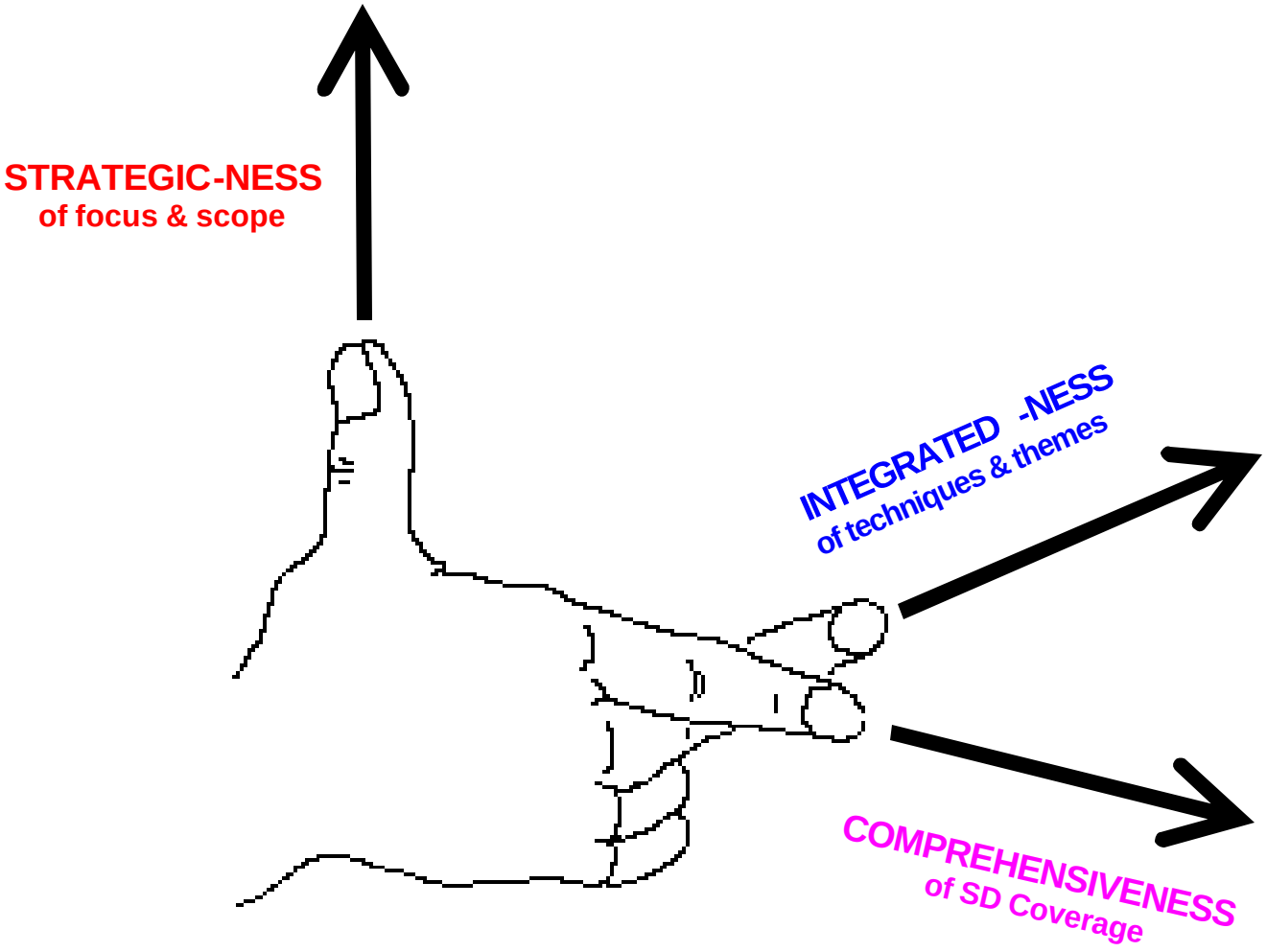
SD-Directed Features *Between* Project Assessment & its Context



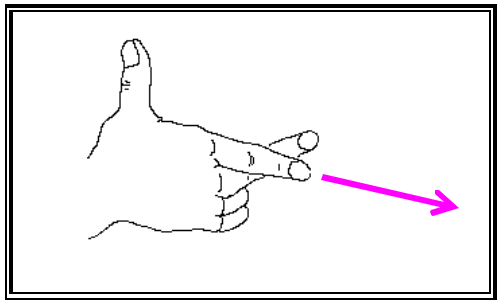
SD-Directed Features *Within* the Assessment Process



‘Right Hand Rule’ for SD-Directed Assessment



(Source: Adapted from: http://www.physics.udel.edu/~watson/phys345/class/1-right-hand-rule.html)



Comprehensiveness

Sustainability Assessment

Integrated Assessment

Objectives-led/ Strategic Assessment

'Triple Bottom-Line' Assessment

STRATEGIC-NESS
of focus & scope

'Traditional' EIA

Bio-physical environment only

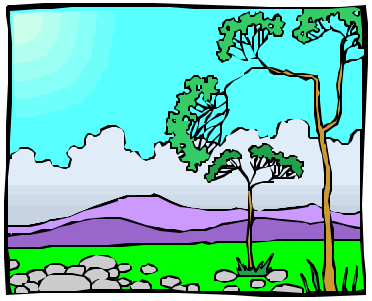
All SD-related themes

INTEGRATED -NESS
of techniques & themes

COMPREHENSIVENESS
of SD Coverage

Comprehensiveness

- Broaden coverage from only bio-physical to environment, social and economic.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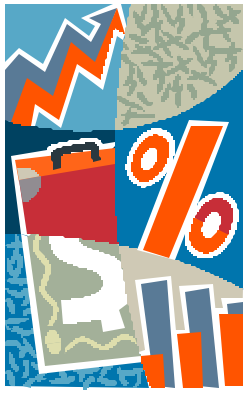


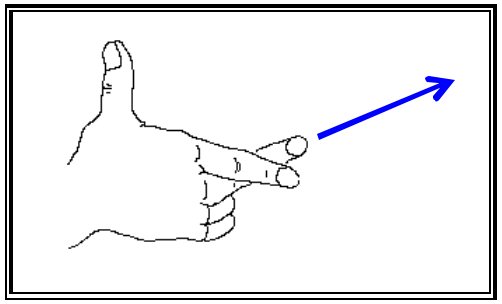
- Include neglected themes/ issues, e.g. gender, health and biodiversity

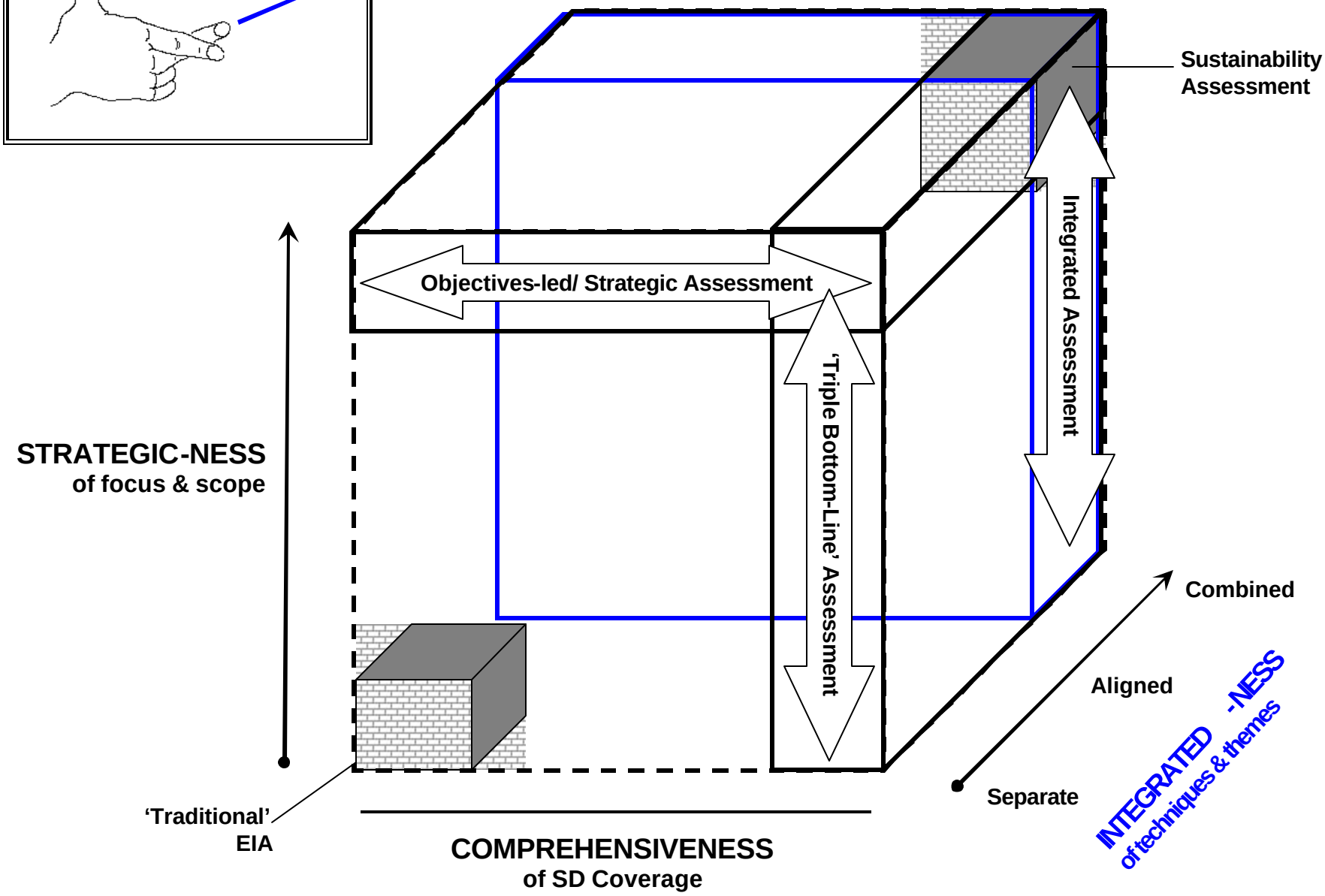
- Arguments against:
  - Loss of focus
  - Dilution of environmental concerns

Comprehensiveness

- Broader coverage has been achieved by:
  - **'Stretching' EIA or SEA** by broadening the definition of 'environment'
  - Using **techniques in parallel**, such as conducting EIA, SIA and HIA.
  - Adding techniques to EIA or **combining techniques**, e.g. ESIA or S&EIA
  - Developing **new techniques**, e.g. Integrated Assessment and Sustainability Appraisal.

Integrated-ness





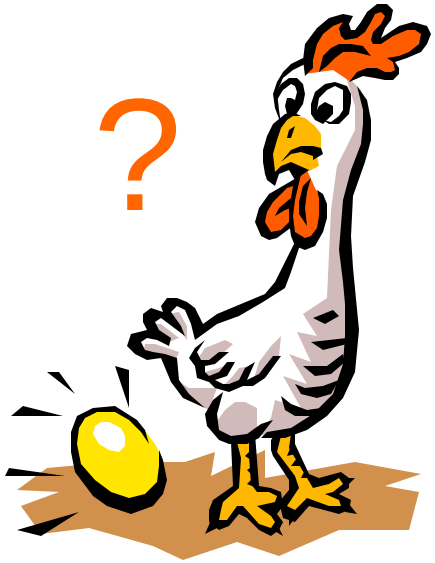
Integrated-ness

‘Chicken or Egg’ relationship between technique and theme integration

Enhanced assessment of a particular theme

Use more techniques

Broader thematic coverage



Improved efficiency and consistency

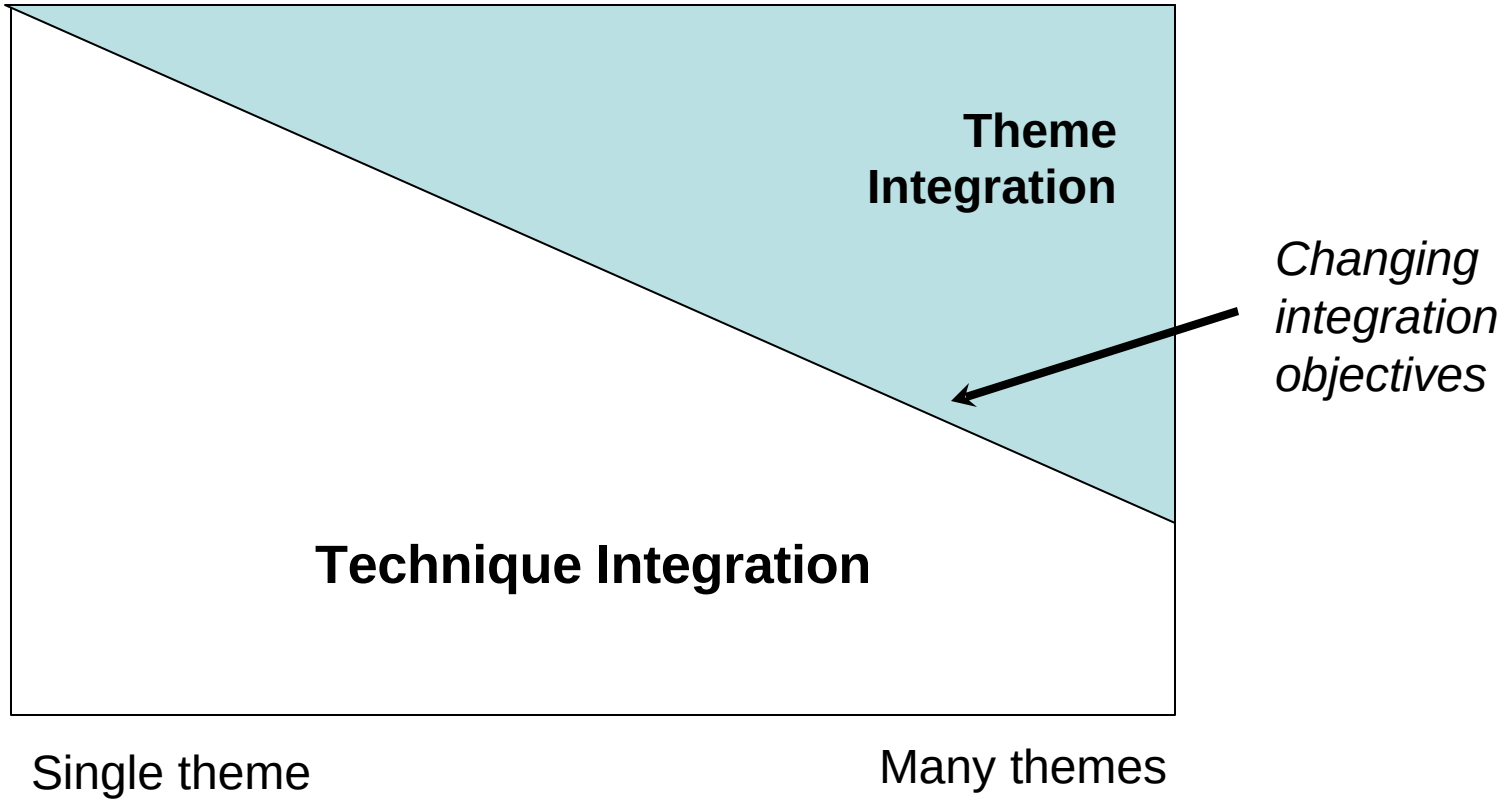
Improved understanding of interrelationship

Integration of techniques

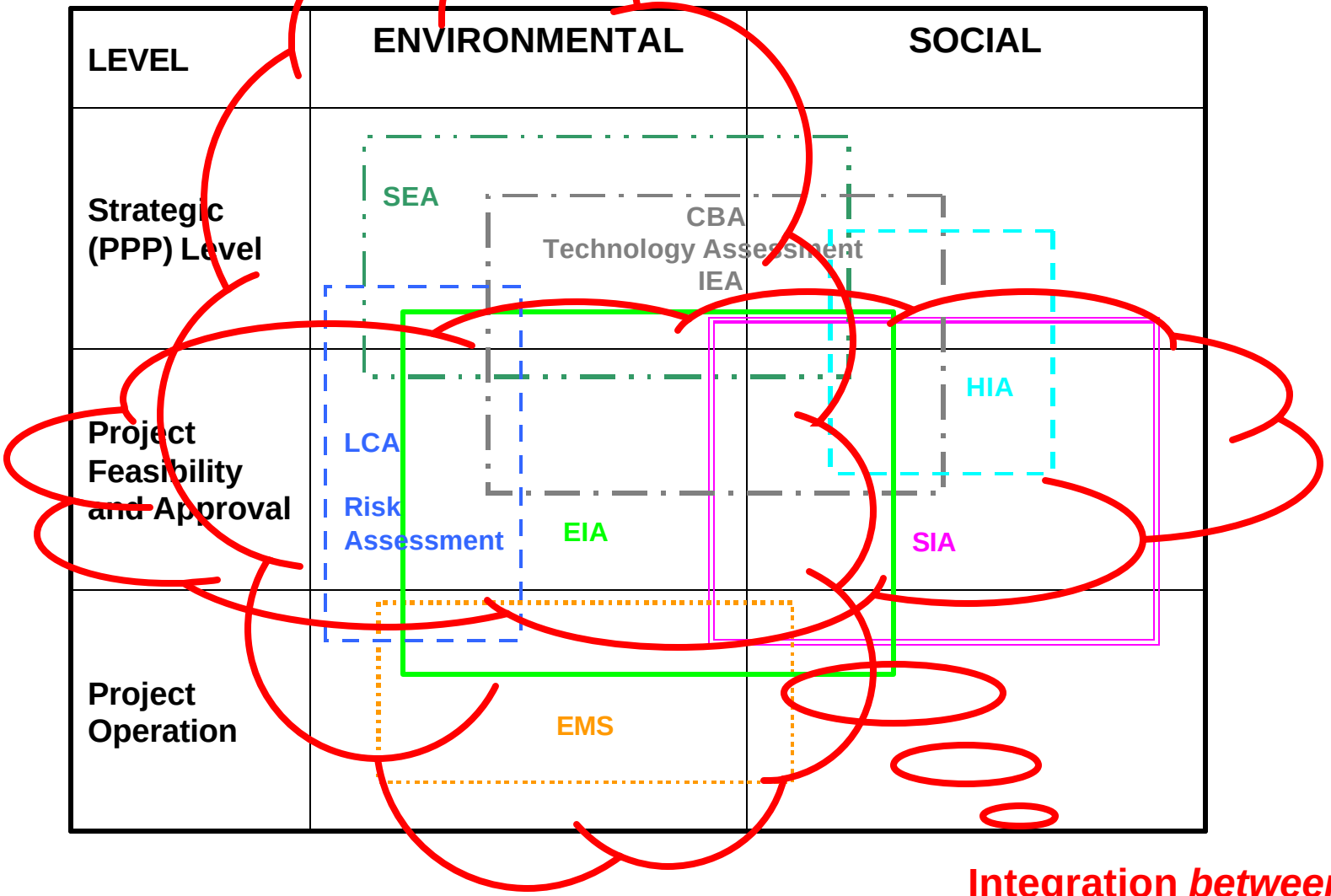
Integration of themes

Integrated-ness

Relationship between thematic coverage and integration objectives



Examples of Technique Integration

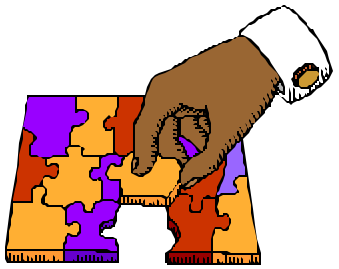


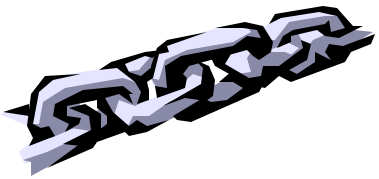
Integration *within* a theme and across levels

Integration *between* themes at the project-level

Integrated-ness

- Why integrate the themes?
  - See the **complete picture**
  - Explore **linkages and interdependencies**
  - Make or explore **tradeoffs** (compare impacts)
  - Determine the **overall benefit/ cost** (aggregate impacts)

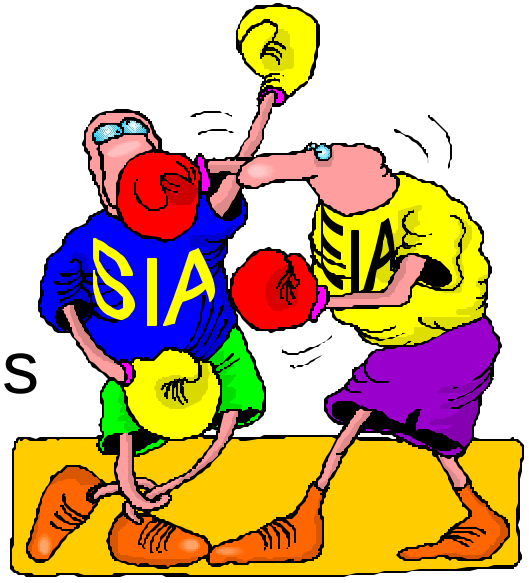


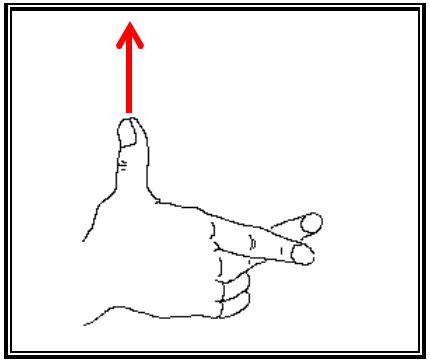


Integrated-ness

- Approaches to integration:
  - Linking techniques via **'frameworks'**
  - **'Stretching'** EIA or **combining** EIA and SIA
  - Using **'integrating' techniques**, e.g. CBA
  - Developing **new techniques**
  - Using **interdisciplinary teams**

- Challenges:
  - **Disciplinary protectionism**
  - Resistance from decision-makers
  - Loss of focus and dilution





Strategic-ness

Sustainability Assessment

Integrated Assessment

Objectives-led/ Strategic Assessment

'Triple Bottom-Line' Assessment

SD/ Broad

STRATEGIC-NESS
of focus & scope

Impact minimisation/ Narrow

'Traditional' EIA

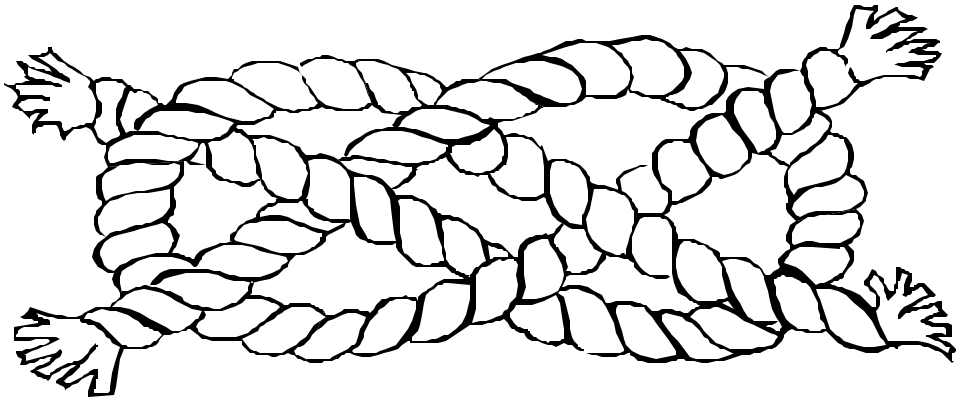
COMPREHENSIVENESS
of SD Coverage

INTEGRATED -NESS
of techniques & themes

Strategic-ness

- Two ‘strands’:

Scope



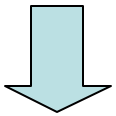
Focus

STRATEGIC-NESS
of focus & scope

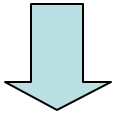
Strategic-ness: Focus

- Shift in assessment goal:

Mitigation/ avoidance of **negative impacts**



Enhance **positive impacts**

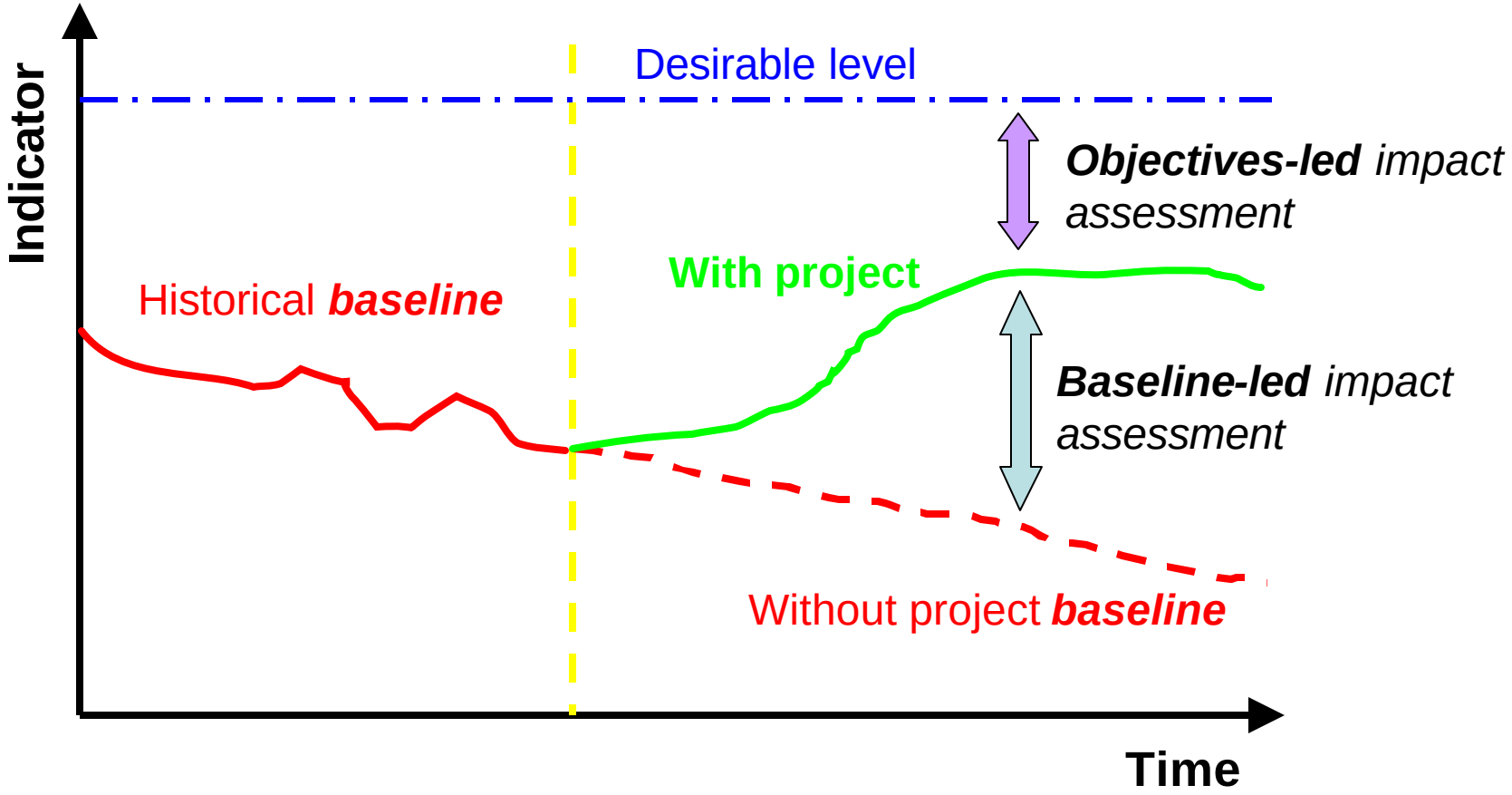


Contributes to/ Achieve

Sustainable Development

Strategic-ness: Focus

Baseline-led versus Objective-led Assessment 'Benchmarks'



(Adapted from Wathern, 1988)

Strategic-ness: Focus

Possible sources/ types of **assessment criteria:**

	Analogy: 'Going for a walk'
Standards and guidelines	Obey the rules and listen to recommendations
Baseline **trends** (& judgment)	Favour downhill routes
Developed using **stakeholder opinion** ('wish lists')	Get 'everyone' to say where they would like to go
Higher authorities	Follow a 'recommend route' map
Thresholds (of unsustainability)	Avoid turnoffs that clearly head in the wrong direction
Derived from **SD principles**	Generally follow the correct compass bearing
Determined using '**backcasting**'	Determine the destination and find the best way of getting there

Strategic-ness: Scope

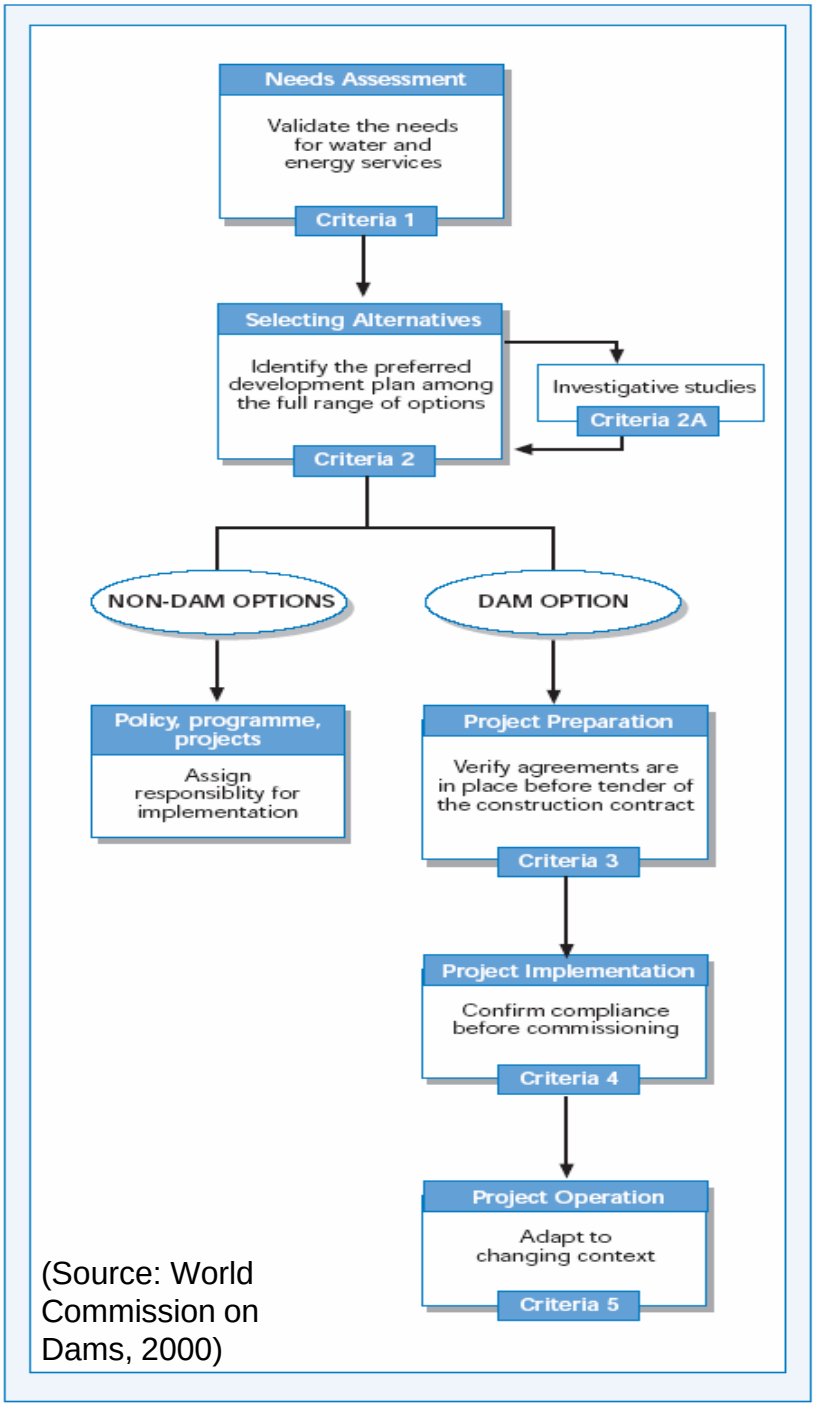
Features that determine the **scope** of an assessment:

Features:	**Narrow** (Project-specific)	**Broad** (Strategic)
Boundaries		
• Spatial scale:	Site/ Local	Regional/ National/ Global
• Temporal scale:	Life of the project	Longer than project life
Alternatives:	Project alternatives (Design options)	Alternative projects
Types of Impacts:	Direct impacts	Residual Impacts Cumulative Impacts Induced/ Secondary/ Indirect Transboundary/ Global Impacts
Risk and Uncertainty:	Avoidance of risk and uncertainty	Accommodation of risk and uncertainty

Strategic-ness: Scope

Alternative Projects

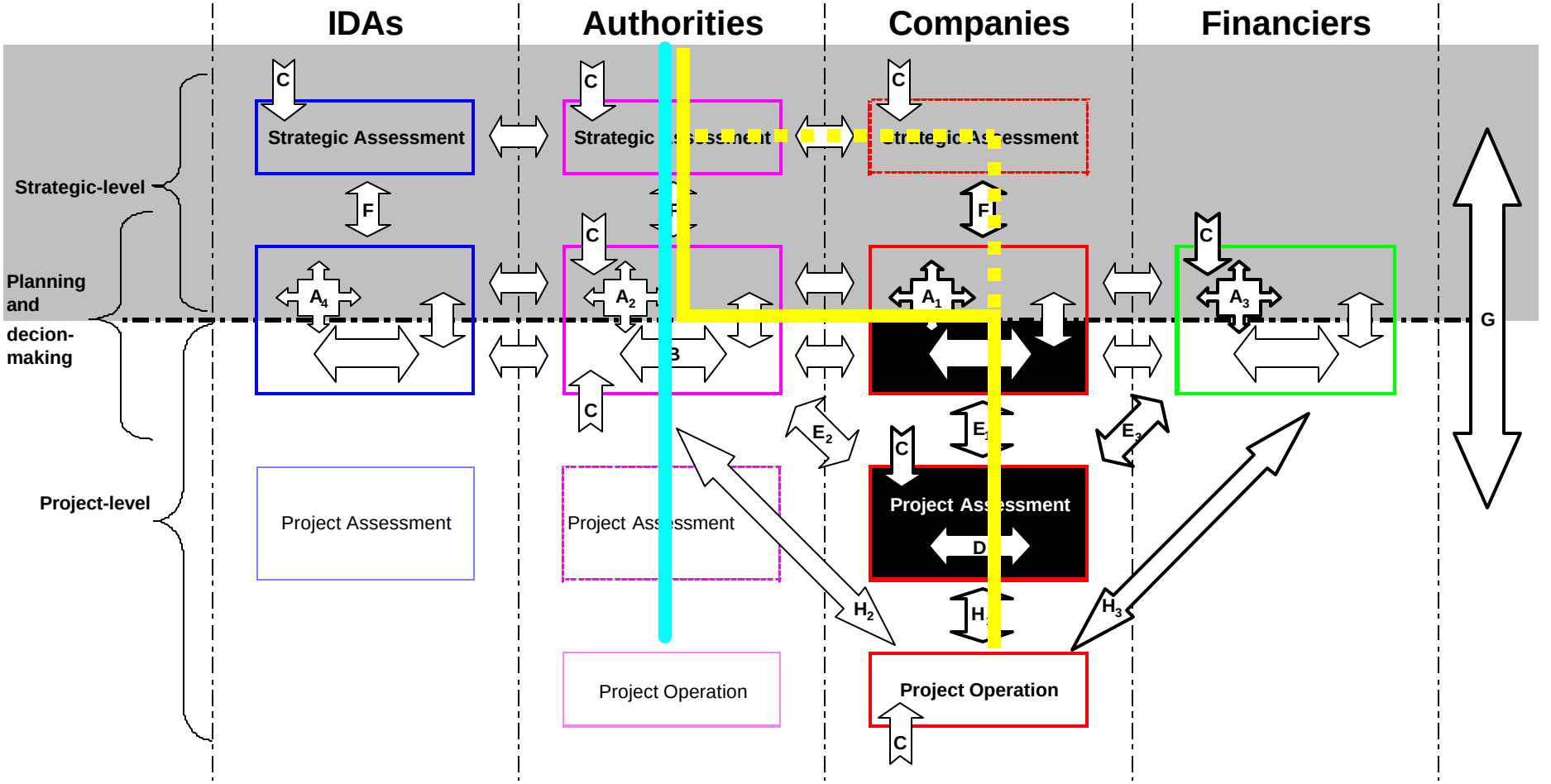
- When **public or donor** money is involved and the primary motivation for projects is to satisfy societal needs then a top-down approach to project selection is – at least in theory – a logical approach.
- What about **private-sector** projects?



(Source: World Commission on Dams, 2000)

Strategic-ness

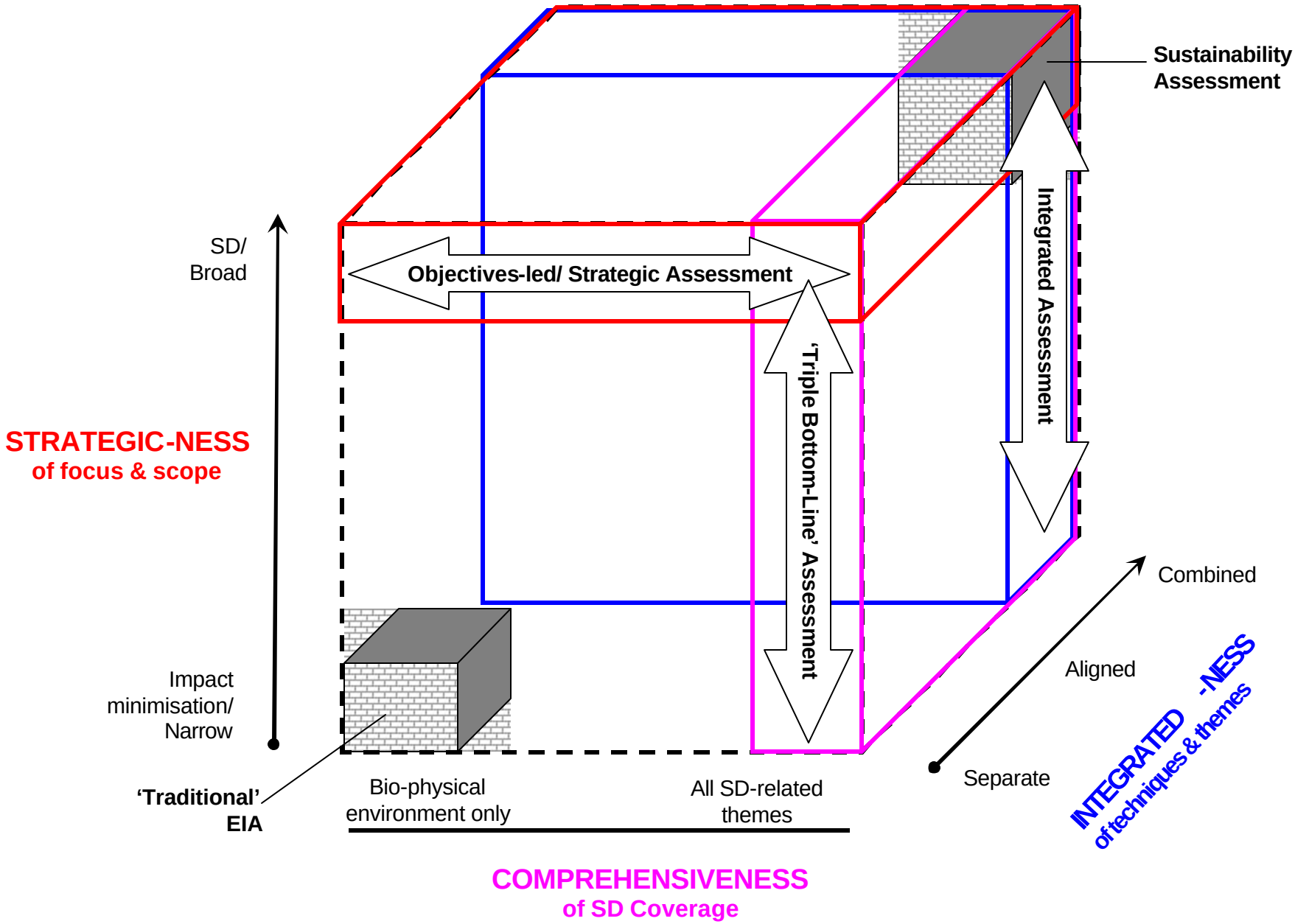
Tiering and private sector projects?



Strategic-ness

- To what extent can project-level assessments be strategic?
- Is tiering a realistic option for private sector projects?

SD-Directed Features *Within* the Assessment Process



Way Forward

- Evaluate recent ‘best practice’ mining projects determine the extent that SD-directed features are beginning to emerge in practice.

EKATI Diamond Mine

- Develop a ‘best practice’ SD-directed assessment framework for mining projects.