



TriCo R&D Brokerage Event

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EU STRATEGY ON SUSTAINABLE DEVELOPMENT

- **Based on the Göteborg decision**; furthermore, the integration of the external dimensions has been decided at the Barcelona Summit.
- **Concrete strategy** focussed on a limited number of principles and issues taking into account the long term.
- **“Getting the price right”** (incorporation of costs to Society and Environment) and cost-effectiveness criteria are crucial economic principles.
- **Consistency** between EU Policies, national, EU and international regulation.
- **“Sustainability Impact Assessment”** needs qualitative and quantitative assessments and tools: cost-effectiveness, cost-benefit, multicriteria analysis; evaluation of damages.



- **Scenarios and targets** for environment, economic and social dimensions are important elements for SIA.
- **Multifunctionality** covers knowledge on externalities like carbon sinks, landscape, biodiversity, rural development, environment status; role of “public goods” has to be considered in this context.
- **EU value added** means not only common approaches but also an harmonised and consistent set of objectives, rules and directives, criteria for investments and management, references (scientific, thresholds, best practices).
- **Involvement of stakeholders** (both public and private) and civil society is important, “Participative approaches” have also to be considered.
- **International dimension** (partnership, international convention) must be part of the EU S.D. strategy.



Main methodological orientations

- **Integration of disciplines and sectors at different scales - example of “forestry/wood chain” taking into account forests resources and societal demand.**
- **The Climate Change Strategy methodology could be applied with success to sustainability issues (when relevant) - ex.: water pollution, pesticides
Thresholds targets mitigation strategies
implementation.**
- **Thresholds of sustainability: critical environmental load combined with economic and social aspects have to be identified for the sustainability issues; definition of targets would follow.**



- The economic assessment should be strengthened in order to provide solutions to the EU policies and S.D. strategy. Tools (in particular modelling, data bases, accounting frameworks) have to be systematically developed for:
 - *costs to Society* (externalities and monetary valuation when feasible)
 - *sustainable impact assessment* (scenarios, cost-effectiveness, cost-benefit and multicriteria analysis (e.g. legal aspects))
- Social assessment, including the legal and institutional domains, and participative approaches have to be improved for a better governance; links with environment and economic assessments have to be consolidated.



“Sustainability Impact Assessment”

- * A major “grip” for the EU Sustainable Development Strategy.**
- * Applied at the beginning of the policy definition, specially to all major policies. More than 30 policies will be subject of SIA in 2003 !**
- * “Member States should carry out impact assessments where they use the right of initiative for new legislation. They should also be encouraged to define standards for consultation and impact assessment”.**
- * A driving force for the Sustainability research.**



SIA: Methodology (1)

- **“Sustainability criteria”**
 - ↓ protection and renewal of stocks of resources
 - ↓ efficiency with which resources are used
 - ↓ equity between generations
- **“Measuring impacts”**
 - ↓ quantitative, qualitative and in money terms when reliable estimates are possible
 - ↓ costs and benefits expressed in real terms taking into account “discounting”



SIA: Methodology (2)

Economic impacts : macro- and micro-economic impacts, notably in terms of economic growth and competitiveness, innovation and technological development, investment, market shares and trade patterns, increases or decreases in consumer prices.

Social impacts : human capital, employment levels, gender equality, social exclusion and poverty, health, safety, consumer rights, social capital, security.

Environmental impacts : changing status of climate change, air, water, soil pollution, land-use, biodiversity, changes in public health.

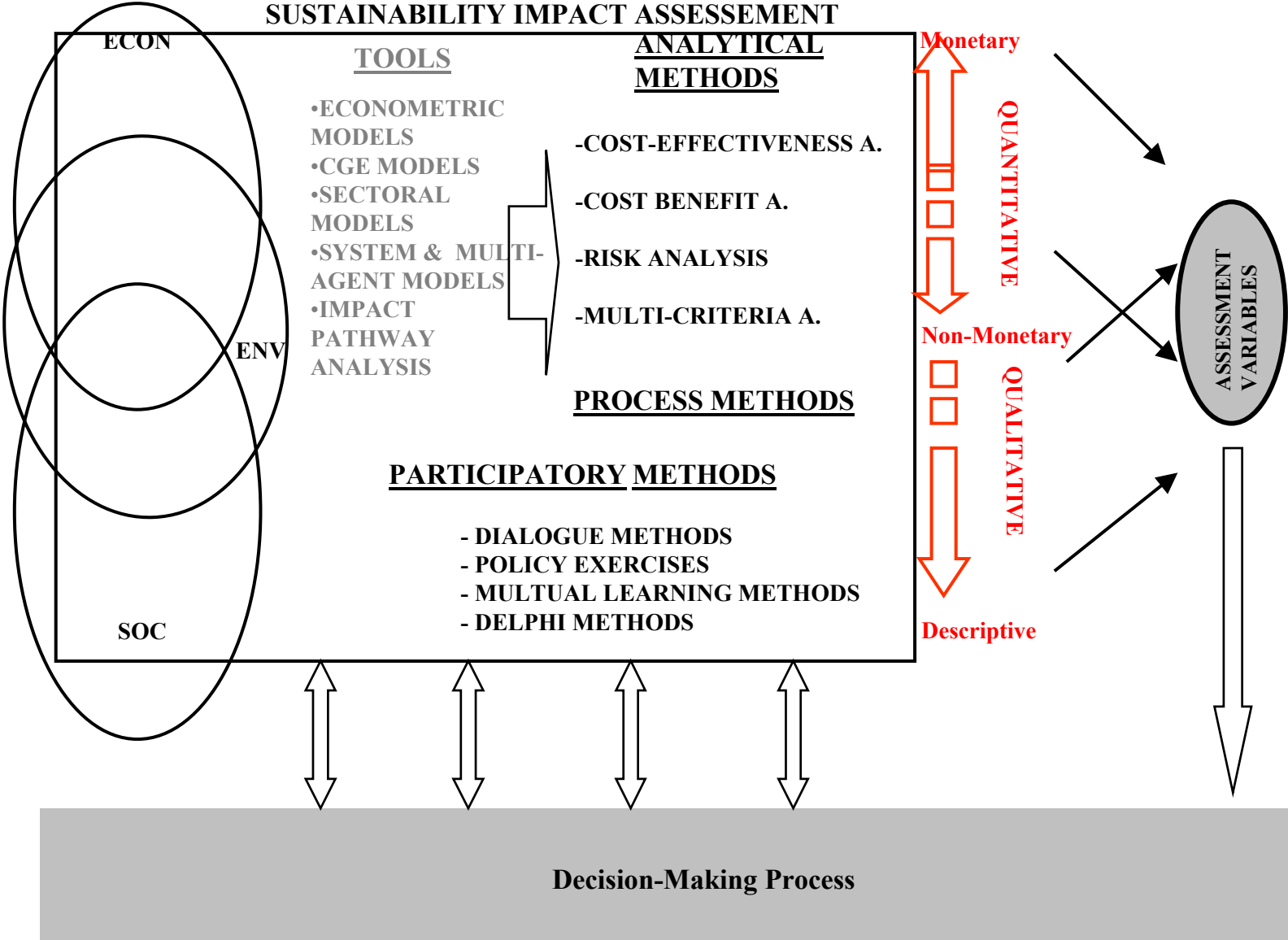


SIA: Methodology (3)

- **Tools for cost-benefit, cost-effectiveness, multicriteria analysis, scenario building, indicators building.**
- **Treatment of risk and uncertainty in order to apply “precautionary principle”**
- **↓ macro-econometric and general equilibrium models**
- **↓ sectoral models : energy, transport, agriculture and forests**
- **↓ “Impact Pathway” analysis for damage valuation**
- **↓ participatory approaches, learning methods**



SUSTAINABILITY IMPACT ASSESSEMENT





“We don’t start from scratch”

- **Three categories of methods** (in line with existing and needed projects) :
 - > **foresight and assessment tools**:
 - macro-economic or sectorial models like the general equilibrium model GEM-E3 or simulation econometric model NEMESIS for EU and World Economy-Environment analysis;
 - POLES and PRIMES for energy-Climate Change;
 - accounting frameworks of external costs like EXTERNE for energy and transport technologies or GREENSENSE for other issues;
 - aggregated indicators like PASTILLE for urban areas activities.



- > tools for analysing procedures and mechanisms : cooperative participation approaches like REGIONET for regional S.D. or GOUVERNE for Integrated Water Management (participation of all key actors); social learning techniques like SLIM for Use of Water at Catchment scale.
- > tools and frameworks for planning and management, which combine quantitative tools and process (INSURED for regions or INNESTO for Sustainability Quality Management)

... a more integrated framework of tools and assessments has nevertheless to be built for Sustainability



VIII. Cross-cutting issue: Sustainable Development concepts and tools

VIII.1 Estimating thresholds of sustainability and externalities

STREP and CA - Harmonising and sharing of methods and data

VIII.2 Developing tools for integrated sustainability assessment and for the incorporation of sustainability in decision making processes

STREP and CA - High level scientific validation

STREP and CA - Indicators



Cross-cutting issue: S.D. concepts and tools (1)

- objective:
- to develop concepts and tools for facing the complex challenges expressed in the EU Strategy on S.D.: environment, economic and social dimension and trade-off, “getting the price right”, cost-effectiveness and cost benefit analysis, equity, long term, thematic priorities;
 - to support the Sustainability Impact in qualitative and quantitative terms;



- to exploit the scientific, economic, social and technological knowledge, including experiment about participative approaches and governance;
- Precautionary Principle and regional dimension as key elements;
- thresholds of sustainability, externalities and Integrated sustainability assessments should be incorporated in the decision making process (governance).



Sustainable Development concepts and tools (2)

Content

1. Estimating thresholds of sustainability and externalities

Keywords: estimation of scientifically based thresholds (points of no-return); developing and harmonizing methods for evaluating environmental and health impacts of actions or technologies

Instruments: 1 NoE or IP for thresholds (2nd call)
1 NoE or IP for externalities (2nd call)
STREPS or CA for harmonizing and sharing methods and data on externalities (1st call)

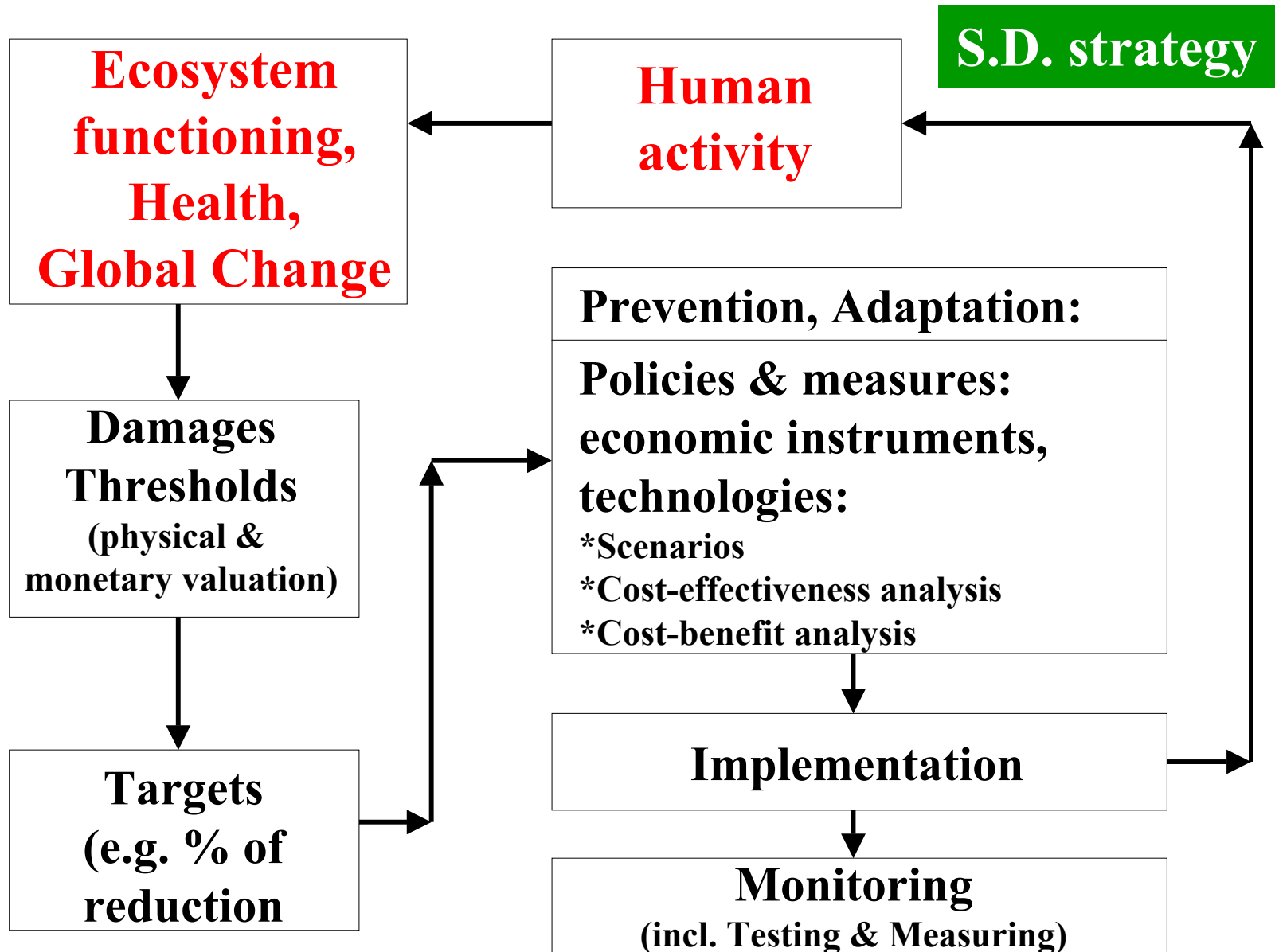


2. Developing tools for integrated sustainability assessment and for incorporation and decision-making process

Keywords: qualitative and quantitative tools, macro, meso, micro levels; world, EU, national, regional, local dimensions, foresight and forecast (scenario building, risk analysis; linkage of ecological and economic modeling; integration of horizontal and sectoral topics like technology, social issues, land-use biodiversity; incorporation of externalities and thresholds; measuring progress, policy making and governance, education programmes for dissemination of knowledge and practices.



- Instruments:**
- 1 NoE or IP for innovative methods and tools (2nd call)**
 - 1 STREP or CA for modeling development and application for scenario building and impact assessment (2nd call)**
 - 1 STREP or CA for education programme (2nd call)**
 - 1 STREP or CA for validation of methods and results (1st call)**
 - 1 STREP or CA for combined ecological, environmental and social indicators (1st call)**





V. Strategies for sustainable land management, including coastal zones, agricultural land and forests

V.1 Sustainable use of land

V.1.1 Land-use and landscapes in sensitive regions

V.1.2 Integrated Coastal Zone Management (ICZM) considering spatial and temporal integration and stakeholders involvement for Sustainable Development



V.2 Qualitative and quantitative aspects of multi-functionality of agriculture and forestry/wood chain

V.2.1 Agriculture for Sustainable Development

V.2.2 Forestry/wood chain for Sustainable Development

NoE or IP - Development and application of integrated approach and tools for long-term sustainability of forest status and productivity



Land Use in Priority 6.3 (Area 5)

Work Programme (indicative, 2nd call)

1. Land-use and landscape in sensitive regions

Indicative topic for NoE or IP

- * **Methods for sustainable regional development assessment**

Keywords: tools for definition and monitoring of strategies, sensitive areas such as mountains, coastal zones, islands, industrialised zones taking into account rural development (...)



Indicative topics for STREPS and CA

- * **Development of new concepts, strategies and tools for land use and landscape management, through multifunctional approach**
- * **Land use modeling taking into account management of material, energy and land use tools for integrated assessment and multilevel strategies (...)**



2. Integrated Coastal Zone management for Sustainable Development

Keywords: interdisciplinary approaches, using scientific knowledge on ecosystems and social economic knowledge on sustainability impact assessment; development of decision-making tools for integrated assessment and management in the context of Sustainable Development, involvement of stakeholders, communication of knowledge.

Instrument: Network of Excellence (2nd call)
Establishment of a network of research partners working on ECZM in EU.



Agriculture in Priority 6.3. (Area 5)

Work Programme (indicative, 2nd and 3rd call)

Qualitative and quantitative aspects of multifunctionality agriculture and forestry/wood chain

1. Agriculture for Sustainable Development

Keywords: multifunctionality concept, positive and negative externalities, farming systems, internal and external dimensions; participation of D.C.

Instruments: NoE or IP (2nd or 3rd call)

2. (p.m.) Forestry/wood chain for Sustainable Development



6th FP and Forests

- The forest area is addressed in FP6 in a different way compared to the previous FP (see for example “forest production” issue).
- Mainly three “entries” in FP6:
 - Priority 6.3 “Global Change and Ecosystems”
Area 5: “Strategies for sustainable land management, including agricultural land and forests”
 - Priority 3 (iii) “New production processes and devices”
 - Priority 8.1 “Policy-oriented research”
Area 1: “Sustainable management of Europe’s natural resources”

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- **“Forest and Sustainable Development”** is a new orientation of the 6th FP; forestry/wood chain has to be seen in this context.
- **Balance** between Economic, Environmental and Social dimensions has to be observed; **integration** of the different levels (forestry/wood chain) and scales (local, regional, global); **involvement** of all the stakeholders become a necessity.
- Integrating and strengthening the ERA; ensuring E.U. value added (also for Accession Countries), contributing to the EU Strategy for Sustainable Development are strong motivations of the 6th FP which apply to the “Forest” domain.

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Forests in Priority 6.3 “Global Change and Ecosystems”

1. Specific Programme (2002-2006)

Area V: Strategies for sustainable land management, including coastal zones, agricultural land and **forests**

Objectives:

“Development of strategies and tools for sustainable use of land” with emphasis on coastal zones, agricultural lands and **forests**”

“Integrated concepts for the multipurpose utilisation of agricultural and **forests** resources” and the integrated **forestry/wood chain** in order to ensure S.D.

“qualitative and quantitative aspects of multifunctionality of agriculture and **forestry**”



Research will focus on

“Positive and negative externalities under different production systems”

“Sustainable forest management considering regional specificity”

“Strategies for sustainable management and multipurpose utilisation of **forest** resources”

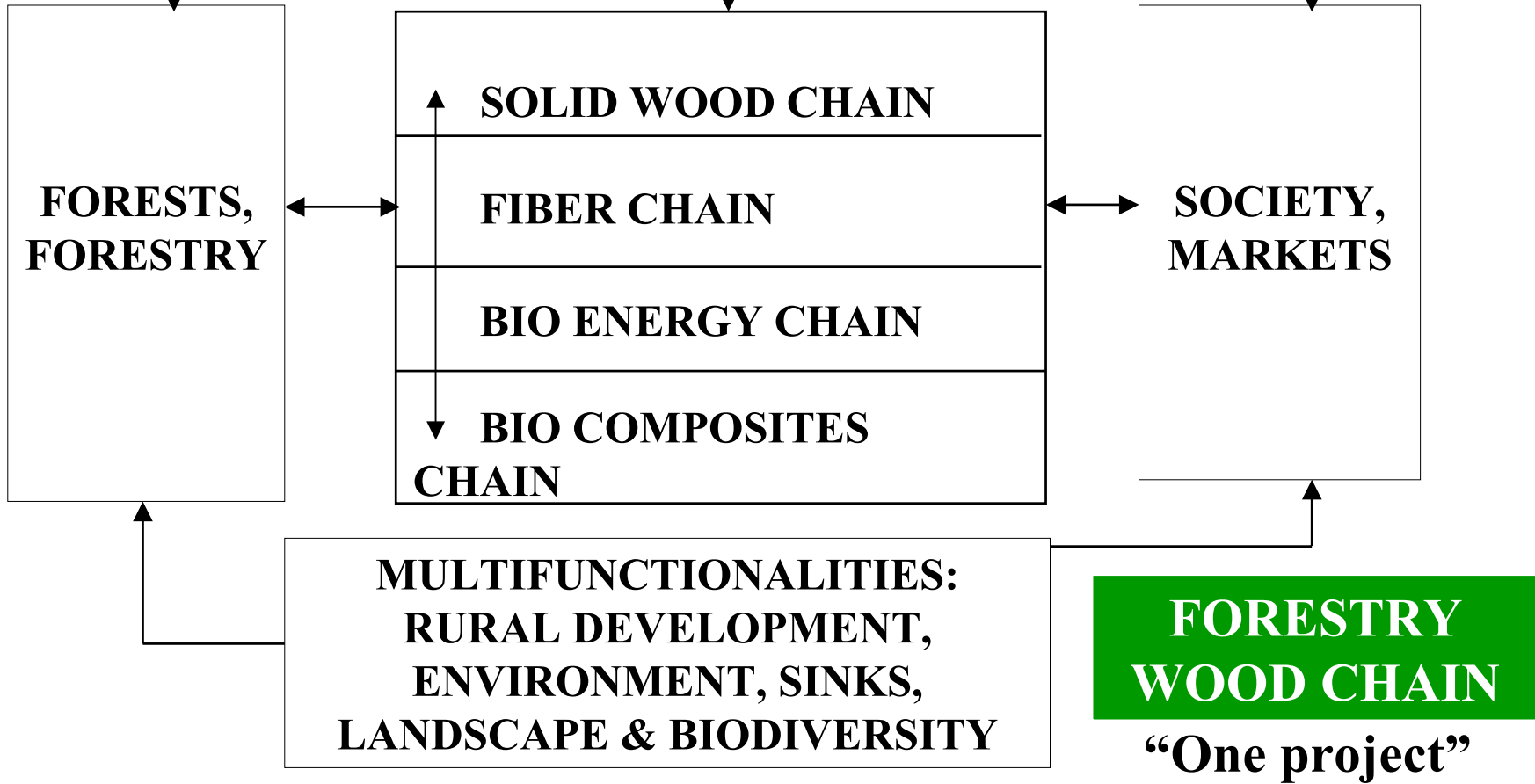
“Cost-efficiency of new environmental-friendly processes and recycling technologies within the integrated **forestry/wood chain**”



ACTORS: INDUSTRIES, PUBLIC AUTHORITIES, CIVIL SOCIETY

INTERNATIONAL: TRADE, CONVENTIONS, PARTNERSHIP

REGULATION: LOCAL, REGIONAL, EU, WORLD





Specific Support Action

Lessons from past research on sustainable production and utilisation of forests

Characterisation of the multifunctionality aspects of forestry/wood chain with regard to their capacity of natural resource conservation, landscape orientation and land use creation to different types of region (mountains, coastal zones, cultivated areas and urban forests) including their industrial utilisation in the forestry/wood chain and taking into account the role of the actors, institutions and legislation.



- ✓ **Capitalisation of results from the past research on sustainable agriculture** and perspectives for future research actions. Contribution of the agro-ecological systems to the different land uses. Comparison of existing externalities calculation in agricultural and forest production.



Priority 8.1 - Policy-oriented research

Topics for STREPS and Co-ordination actions

(mainly)

- **Developing further the multifunctionality concept and making it operational as a policy instrument (both Agriculture and Forests) - *first call*.**
- **Sustainable forestry; social, ecological and economic aspects of forest policies in EU and Candidate countries - *indicative for further calls*.**