

# SYSTEMIC TOOLS FOR AN EU RESOURCE EFFICIENCY STRATEGY/ROADMAP

Proposals for a pro-active Resource Efficiency Strategy leading to systemic changes towards smart, sustainable and inclusive growth: how to exercise collective intelligence in a global, interconnected and interdependent world ? How to design a voluntary open-coordination between actors and with front runners willing to leverage their respective powers and means to accelerate change ?

## Summary.

The Resource Efficiency Flagship Strategy should become the EU Strategy 2020 'pilot' flagship, much more participatory in its design and implementation than the Lisbon strategy or the other Europe 2020 flagship initiatives.

As such, the Resource Efficiency Flagship Strategy will impact the three pillars of the *European Societal Pact* build upon the years : peace (security), prosperity, citizenship (democracy and lifestyle).

The Resource Efficiency Strategy should address jointly two agenda's with in any case their 'Turbulent Teens 2020' and the transition paths : **The scarcity agenda** and the **Well being for all in the limits of one planet by 2050 in a "Social and Inclusive Europe"**<sup>1</sup>.

The Strategy should have two axis: : a 'Global Value Chain Management' axis and a "Well Being in the Limits of one Planet " axis ( to cope with the Rebound effect). We need to address 'radical transformation'.

The Strategy should stress the need for '*policy adaptation*' as, indeed, current instruments are thematic, neither "chain" oriented nor addressing 'the rebound effect'. The value chain management requires to tackle several levels which should be addressed by the Strategy

The Strategy should address the social impact of raising commodity/energy prices and sustainable lifestyle, how to secure resource efficiency while addressing well-being as far as : human development (access to basic services for all), urban management, food, energy and power, buildings ( a covenant on sustainable building is recommended), mobility

The Strategy should include the following elements : principles, dashboard, regulatory framework, governance , empowerment, traceability and a new generation of information right , partnership with Asia, Africa, Latin America ready prior the UN Conference 2012. By 2010, a "*EU Systemic Resource Efficiency Board*"<sup>2</sup> should be set up.

The Strategy should be the theme of a public and private investment 2050 backcasting exercise, a conference on investments 2050, a covenant with Private Financial Institutions,

Rio+20 should be the opportunity for sustainability/eco-innovators part of global value chains to meet with their partners of the other part of the world and discuss their co-operation initiatives in the framework of or in support to Resource Efficiency.

<sup>1</sup> State of the Union. J.M. Barroso. September 2010

<sup>2</sup> In the same way as there will be a EU Systemic Board for the banking sector.

The Commission will present by 2011 a Resource Efficiency Flagship initiative to the European Council within the framework of the Europe 2020 Strategy. However, the Europe 2020 Strategy which is aiming at *smart, sustainable and inclusive growth* has no resource efficiency target. Furthermore, the climate target of Europe 20-20-20 which relates to 'energy efficiency' is not 'mandatory' and a tripling of policy impact is required to deliver the savings needed to meet Europe's 20% goal for 2020<sup>3</sup>. It should become the EU Strategy 2020 'pilot' flagship, much more participatory in its design and implementation than the Lisbon strategy or the other Europe 2020 flagship initiatives.

*"The vision of a low carbon economy will be replaced by a resource efficiency economy"*<sup>4</sup> in which climate change and environmental protection are embedded and interdependencies with water, food, energy, natural resources are addressed. But the fact is that low-carbon is *already* becoming an integral part of industrial planning and vision, whereas -- despite its fast-growing acceptance by a variety of sectors facing 'scarcity' issues-- resource efficiency more generally has to be further explained before it becomes fully integrated.

Global population growth, lower prices following efficiency gains, and more material demand for developing sufficient RE capacity (electricity, gas, liquid fuel) will all drive scale effect of growth. Green Economy is undoubtedly a step in the right direction by emphasizing the need for qualitative change in growth but basically confined to incremental steps (20-40, not 80% GHG reduction); linear approach (plugging one hole, yet creating two others), deceptive (underestimates the colossal challenge, does not alert people). We need not greening but 'radical transformation'. Some gradual, incremental change is possible, but the required radical changes needed will most likely take some more serious economic disruptions (triggered by resource/commodity price explosions), on the one hand, and environmental disasters (such as in Pakistan recently), on the other<sup>5</sup>. This is generating a new thinking within companies toward "Sustainable Business and Innovation – SBI"<sup>6</sup> and the need to think differently trade policy. The key driver should be "innovation and collaboration toward a post carbon and closed loop economy". Sharing innovation and open sourcing are becoming key. Globalization versus localization will be back on the agenda .

As such, the Resource Efficiency Flagship initiative will impact the three pillars of the *European Societal Pact* build upon the years, as *"the combination of resource constraints, increased pressure on ecosystems and pollution will force us to change course (...) and we should now take the lead to develop an organized transition of its economy and of its society"*<sup>7</sup> :

- **peace** : Europe is faced with scarcity and access problems in the field of energy (gas and oil), water, chemicals and 14 critical raw materials for which their high supply risk is mainly due to the fact that a high share of the worldwide production comes from China (antimony, fluorspar, gallium, germanium, graphite, indium, magnesium, rare earths, tungsten), Russia (PGM), the Democratic Republic of Congo (cobalt, tantalum) and Brazil (niobium and tantalum). This production concentration, in many cases, is compounded by low substitutability and low recycling rates.<sup>8</sup> To this list phosphorus should be added (China and Morocco)<sup>9</sup> and the new global race for farmland. If Europe wants to avoid new conflicts for resources, the EU Resource Efficiency Strategy has to engineer new types of partnership with other regions of the world addressing the scarcity agenda.
- **Well-being and prosperity for all**: while Europe will face increase of energy and commodities prices, the Resource Efficiency Strategy should secure that in a 'Social and

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<sup>3</sup> Energy Savings 2020. European Climate Foundation

<sup>4</sup> Walter Stahel. The Performance Economy

<sup>5</sup> Prof. Ulrich Hofman, UNCTAD at the Resource Efficiency Alliance Trade 2020 workshop.

<sup>6</sup> NIKE presentation at the Resource Efficiency Alliance Trade 2020 workshop.

<sup>7</sup> Resource Intelligent Europe. A MEP/MP Network.

<sup>8</sup> Expert group DG Enterprise. See as well public consultation on a new communication on raw materials

<sup>9</sup> Phosphorus shortage : European challenges. European Parliament. 4/3/2010

Inclusive Europe', we are progressing towards a well-being society and prosperity for all<sup>10</sup>.

- **citizenship**. : The Resource Efficiency Strategy will also be about lifestyle, inclusiveness and empowerment. In a knowledge and smart society.

The EU Resource Efficiency Strategy/Roadmap should have for objective to leverage the vast opportunities of transformation ahead of Europe's towards " *circular, closed-looped and networked designs that help people to live well within one planet*" ( *which is what*) *drives successful industry and reduces the need for primary resource extraction. Closed-loop systems make the concept of waste obsolete*<sup>11</sup>.

The Resource Efficiency Strategy should address jointly two agenda's with in any case their "Turbulent Teens 2020" and the transition paths :

- (i) **The scarcity agenda** (peak oil, water, food, energy, critical materials, land use, biodiversity<sup>12</sup>). Europe's Resilience and Security
- (ii) **Well being for all within the carrying capacity of ecosystems** in a "Social and Inclusive Europe"<sup>13</sup>.

A way to increase competitiveness by cutting costs and increasing eco-innovation is to move towards a 'resource efficient' economy. The priorities are clearly identified in particular by the outstanding work of the UNEP-Resource Panel<sup>14</sup>. Excellent reports have designed approaches as articulated by Wiliam Mc-Donough and Michael Braungart (*all waste equals food for another system*<sup>15</sup>), by Gunter Pauli (*zero emission*)<sup>16</sup>, Philip Schepelmann (*the Green New Deal*)<sup>17</sup>, Walter Stahel (*the Performance Economy*, Nic Marks (*Happy Index*), Tim Jackson and the UK Commission on Sustainable Development (*Prosperity without Growth*), the booklet series " *Making the business case towards low carbon and resource efficient life-styles*" of the Marrakech Task Force on Sustainable Lifestyles chaired by the Swedish Ministry of Environment, the EPE report to the French Ministry of Ecology and Transport on *Mobilising Economic Actors and Markets in support to EU Objectives 2020*.

The EU " *Trade strategy for Europe*" 2020, the *EU Innovation Action Plan*, the " *Climate change adaptation strategy*"<sup>18</sup>, the *Common Agricultural Policy* and *Common Forest Policy* reviews, alongside their relationship with biodiversity and job creation, should be linked with the EU ' *Resource Efficiency Strategy/Roadmap*' . Regarding Europe's competitiveness " *the articulation*

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<sup>10</sup> New economics foundation. Well Being Manifesto and Flourishing Society and the Europe (un)Happy Planet Index

<sup>11</sup> WBCSD- Vision 2050. Page 7

<sup>12</sup> As with all scarce commodities, the value of what nature currently provides for nothing might *very suddenly* become impossibly expensive.

<sup>13</sup> Stae of the Union. J.M. Barroso. September 2010

<sup>14</sup> Assessing the Environmental Impacts of Consumption and Production - Priority Products and Materials – UNEP Resource Panel report 2010.

<sup>15</sup> Cradle to Cradle : Remaking the Way we Make Things by Wiliam Mc-Donough and Michael Braungart

<sup>16</sup> The Blue Economy. Gunter Pauli

<sup>17</sup> The Green new Deal, Philipp Schepelmann

<sup>18</sup> Adaption to Climate Change, What do disasters/crisis mean to materials efficiency and resource efficiency ? A directive on Critical Infrastructures has already been published by EU demanding all nations to list their critical infrastructures before 2012. This work aims mainly on security issues only. We should probably emphasize that these issues are also issues for resource efficiency (eco efficiency and materials effectiveness).

*between sustainable development and industrial competitiveness is inevitably going to be among the central themes – and most likely the overarching theme – for industrial policy.<sup>19</sup>*

The Resource Efficiency Strategy should have two axis:

- a ‘Global Value Chain Management’ axis
- a “Well Being within the carrying capacity of ecosystems ” axis ( to cope with the Rebound effect).

1. A Global Value Chain Management Axis

The Strategy should stress the need for ‘*policy adaptation*’ as, indeed, current instruments are thematic, neither “chain” oriented nor addressing ‘the rebound effect’.

Industrial sectors can no longer be treated as homogenous, independent and national : “*a key element of any new Sustainable Industrial Competitiveness policy is that it needs to be developed and implemented through multi-level governance*”<sup>20</sup>. As the two laboratories<sup>21</sup> hosted by EPE and the Wuppertal Institute and funded by the Ministry of the Environment of the Netherlands demonstrated the value chain management requires to address several levels which should be addressed by the Resource Efficiency Strategy :

- The supply chain with audit, EMAS, access to information,
- International cooperation and trade
- Regions/Cities
- ICT

2. A “Well Being in the Limits of the carrying capacity of ecosystems

*A radical increase of resource productivity will not be able to cope with the challenges ahead. This is due to the so called ‘rebound effect’.*<sup>22</sup> How to change our unsustainable consumption and production patterns and contribute to low carbon and resource efficient economies is the agenda of SCP<sup>23</sup>. The Strategy should address the social impact of raising commodity/energy prices and sustainable lifestyle<sup>24</sup>, how to secure resource efficiency while addressing well-being as far as :

- human development ( including access to basic services for all and employment)
- urban management
- food
- energy and power

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<sup>19</sup> Towards sustainable industrial policy. Issues paper to the Industrial Council of the EU. June 2010.

<sup>20</sup> Towards sustainable industrial policy. Issue paper to the Industry Council. 18/6/2010 – ECORYS-IDEA

<sup>21</sup> construction wood and concrete.

<sup>22</sup> Resource Intelligent Europe. GLOBE-EU

<sup>23</sup> See in particular the SCP Wuppertal Institute work on Business Case for low carbon and resource efficient lifestyles done for the Swedish Ministry of the Environment.

<http://www.encourage-sustainable-lifestyles.net/>and the (FP7 funded) project "Social Platform Identifying Research and Policy Needs for Sustainable Lifestyles (SPREAD)"

<sup>24</sup> It is about “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of further generations” (Oslo symposium 1994).

- buildings ( a covenant on sustainable building is recommended)
- mobility

### **Resource Efficiency Flagship initiative Roadmap.**

On the basis of previous and present think tank meetings, we are recommending the following :

#### **The Resource Efficiency Strategy Principles**

- use approaches such as the 'environmental footprint', 'cradle to cradle', 'green chemistry', 'co-processing', 'zero waste', 'ecosystem marketplace', 'land use per capita', 'water footprint', 'payment for ecosystem services' and the 'performance economy' approaches.
- enable *changes to create opportunities ranging from developing and maintaining low-carbon, zero-waste cities and infrastructure to improving and managing biocapacity, ecosystems, lifestyles and livelihoods*<sup>25</sup>.
- *be the flagship initiative of a Well Being Europe within the carrying capacity of ecosystems.*
- *be developed and implemented through multi-level governance*<sup>26</sup>. all the European economic actors should be mobilized and helped to make use of their market power as investors, buyers and managers. European market actors are public authorities (governments, regions, cities, as budget, investments and procurement managers,) companies (as supply chain guidelines providers), citizens, sustainability performance rating agencies, standards setting bodies.

#### **The Resource Efficiency Roadmap Dashboard**

- fix an objective : Four to tenfold improvement in the eco-efficiency of resources & materials from 2050<sup>27</sup>.
- fix indicators for Resource Efficiency. See FoE/SRI <sup>28</sup>four indicators of resource use related to land, materials, water, climate and the Performance Economy report ( an indicator as value per weight expressed in € per kg <sup>29</sup> ). *The overruling issue should not be GHG emissions but resource consumption in industrialized countries. If this is reduced by 90 per cent – a factor of 10 – GHG emissions will not only be reduced by a similar amount, the acidification of soils, air and aquifers will also be reduced*<sup>30</sup> while we will have reduced our dependence on scarce raw materials. *The new metrics of the Performance economy would provide fund managers investing in eco-efficient, sustainable or socially responsible companies with a common denominator for their assessment, which is lacking today*<sup>31</sup>. See also EMAS III<sup>32</sup>.

<sup>25</sup> WBCSD- Vision 2050 page 5

<sup>26</sup> Towards sustainable industrial policy. Issues paper to the Industry Council. June 2010.

<sup>27</sup> WBCSD Vision 2050.

<sup>28</sup> Measuring our resource use. A vital tool in creating a resource-efficient EU. Friends of the Earth.

<sup>29</sup> The Performance Economy, Walter Stahel, p 84

<sup>30</sup> The Performance Economy, Walter R. Stahel.

<sup>31</sup> The Performance Economy p 282

<sup>32</sup> EMAS III – L342/38 EN Official Journal of the European Union 22.12.2009 Annex 4.

The indication of the total annual input/impact in the given field, figure A, shall be reported as follows:

(i) on Energy efficiency

— concerning the 'total direct energy use', the total annual energy consumption, expressed in MWh or

- make use of new policy instruments like the budget approach (total amount of GHG to be released over the period) and new economic models like extension of capital stock or development of a service/leasing economy.<sup>33</sup>
- an European agency should be charged with setting the benchmarks and the carbon/resource traceability of products<sup>34</sup>.

### **The Resource Efficiency Regulatory Framework**

- adapt the present EU macro-economic rules/incentives towards a Resource Efficient Europe in a global framework and *a model of growth and progress that is based on balanced use of renewable resources and recycling those that are not*.<sup>35</sup>
- lead to a regulatory framework to secure that GHG, energy, water, and the costs of ecosystems services are internalized.
- review accounting<sup>36</sup>, reporting and auditing rules related to the *measurement of profits and loss*<sup>37</sup> in an extended performance responsibility and *Environment Social Governance perspective*<sup>38</sup>

### **The Resource Efficiency Initiative Governance**

- launch by 2011 an “*EU Systemic Resource Efficiency Board*<sup>39</sup>” in charge of addressing interdependences between resource efficiency issues and value chain stakeholders and organizing knowledge transfer on it between the Commission, the Parliament, the Council, Investors, Buyers, Standards setters, Trust builders and product and/or service Suppliers. The “*EU Systemic Resource Efficiency Board should tackle the interconnectedness of issues such as water, food, energy, raw materials, biodiversity, job*

GJ,

— concerning the ‘total renewable energy use’, the percentage of total annual consumption of energy

(electricity and heat) produced by the organisation from renewable energy sources,

(ii) on Material efficiency

— concerning the ‘annual mass-flow of different materials used’ (excluding energy carriers and water),

expressed in tonnes,

(iii) on Water

— concerning the ‘total annual water consumption’, expressed in m3,

(iv) on Waste

— concerning the ‘total annual generation of waste’, broken down by type, expressed in tonnes,

— concerning the ‘total annual generation of hazardous waste’ expressed in kilograms or tonnes,

(v) on Biodiversity

— concerning the ‘use of land’, expressed in m2 of built-up area,

(vi) on Emissions

— concerning the ‘total annual emission of greenhouse gases’, including at least emissions of CO<sub>2</sub>, CH<sub>4</sub>,

N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, expressed in tonnes of CO<sub>2</sub> equivalent,

— concerning the ‘total annual air emission’, including at least emissions of SO<sub>2</sub>, NO<sub>x</sub> and PM, expressed

in kilograms or tonnes,

<sup>33</sup> Resource Intelligent Europe. GLOBE-EU

<sup>34</sup> Climate change, the new industrial policies and ways out of the crisis. ETUC.2010

<sup>35</sup> WBCSD – Vision 2050 p 5

<sup>36</sup> See also the French Law of 12/7/2010, article 225 and ISO 26000.

<sup>37</sup> WBCSD – Vision 2050 p 5

<sup>38</sup> Walter Stahel

<sup>39</sup> In the same way as there will be a EU Systemic Board for the banking sector.

creation “relationships that must be considered in an integrated and holistic way, with tradeoffs that must be understood and addressed”<sup>40</sup>.

- launch by 2011 an “European Transition Platform” as been envisaged by the informal environmental ministerial council of July 2010 to explore and analyze the context of promising areas for eco-innovation., smart, inclusive and sustainable trade to address eco-innovation related to sustainable material management.
- support *multi-stakeholder innovation networks that help people translate their values into lifestyles and behaviors to redefine the notion of prosperity and successful lifestyles*<sup>41</sup>.
- create an European network of Resource Efficiency Agencies.<sup>42</sup>
- launch by 2011 an “European Covenant Sustainable Building”<sup>43</sup>. The Covenant should address *positive net energy buildings and sustainable material management*, involving *Front Runners* Building Professionals, Companies, Financiers, Cities, Owners and Tenants Organisations.

### The Resource Efficiency Initiative Empowerment

- by 2011, mobilize the economic actors and the markets (including local authorities and the capital market) which are forging the ‘demand side’<sup>44</sup> to create a ‘critical mass’ able to accelerate the transition. Launch Covenants based on the Jean Monnet method<sup>45</sup>. Host a “day” on ‘Covenants’ and ‘Open-source Platforms’ within the framework of the “Green week” 2011 on Resource Efficiency.
- by 2011 Multinationals on the basis of Vision 2050, the EU Institutions on the basis of Europe 2020 and Civil Society should explore commonality and complementarity -- or not -- of objectives in the short and longer-terms.
- design a ‘knowledge transfer management’ scheme and plan a IT portal named ‘EMPOWER’ (inspired by BUILD UP of DG Energy) to connect sustainability/eco-innovators.
- By end 2011, launch a process toward expanded access to information and participation as part of the European ‘citizens rights’, in particular to equip the value chain stakeholders with the information needed to contribute efficiently to resource efficiency so that they use their market leverages to accelerate the shift towards sustainable consumption and production (cf the Marrakech process) and the implementation of objectives defined by Governments (as Europe 2020 strategy) in relation with :
  - GHG reduction
  - Energy efficiency
  - Renewable energy
  - Resource efficiency and scarcity issues related to minerals, water, food.
  - Biodiversity and other natural resources

<sup>40</sup> WBCSD- Vision 2050 page 3

<sup>41</sup> WBCSD – Vision 2050 page 6 and 14

<sup>42</sup> The Green New Deal. Philippe Schepelmann

<sup>43</sup> Value Chain Management. EPE and Wuppertal Institute Report 2010 to the Ministry of the Environment of the Netherlands.

<sup>44</sup> See EPE reports to the French Ministry of Ecology. “Mobilising Economic Actors and Markets in support to Objectives 2020”.

<sup>45</sup> See EPE report to the French Ministry of Ecology

## The Resource Efficiency Roadmap Financing

Europe can become a global leader in a new low carbon and resource-efficient and environmentally sound economy only if it takes the lead in new financing schemes to implement Objectives 2020-2050 and support clean and efficient technologies. Banks are the 'weak link'.

- by 2011, the public and private (Companies and Private Financial Institutions) in charge of investment planning should be exposed to a 'back-casting exercise' 2050-2010 and build a 'common financial action plan' to meet the financial needs of the coming decade in view of reaching the 2050 Objectives. This exercise should take place by 2011 to influence the investment strategy of both the private and public (before the adoption of the EU Budget 2013-2019) sector .
- by 2011, participate in a Conference in the European Parliament, hosted by GLOBE, on the new banks risk and reward paradigm. If Europe wants to take the lead in resource efficiency, climate change and eco-innovation, we need the EU to take the lead in setting up a new banks risk-reward paradigm for more policy coherence.
- by 2011, launch a Tripartite Forum Commission – Banks – Civil Society. An ambitious banking sector response should address the different types of Banks (public banks as EIB, EBRD saving banks, co-operative banks, international commercial banks, investment banks, retail banks) different types of constraints (listed or not listed banks), as well as different types of responsibilities *focused on main challenges for acceleration of investments in support to the Objectives 2020*. Much like the European Retailers Forum that was established to promote sustainable consumption, the Tripartite European Forum will work to secure a similar type of co-ordination to accelerate the shift in lending and investment required to reach the EU 2020 objectives and finance an overall shift to a resource-efficient economy.

## The European Resource Efficiency Global Partnership

Chinese investment in the green economy exceeds that of EU and USA combined. Impact of China on that scale of growth + jobs + resources impacts will for sure have an effect on whatever the west does to pursue resource efficiency.

In view of UNCSO 2012 Conference on Sustainable Development, the Resource Efficiency Strategy should announce 'pilot resource efficiency partnerships' to be presented at the Rio Summit, such as :

- Asia-Europe Zero Waste<sup>46</sup>, a Asia-EU partnership related to (i) Increase resource productivity and recycling (ii) Recover precious special metals from complex products (iii) Energy recovery (co-processing).
- Africa/Med-Europe. Low Carbon and Decentralised Energy and Power<sup>47</sup> We should be as successful as the development of tel/ mobiles
- Latin America/Caribbean. Resource Efficient Agriculture and Forest .

The Commission has released a Communication "*Trade, Growth and World Affairs, Trade Policy as a core component of the EU's 2020 strategy*". A seminar has been hosted on November 10<sup>th</sup> at the European Economic and Social Committee by the Resource Efficiency Alliance –with the financial support of the French Ministry of Ecology and the participation of UNCTAD - to identify which initiatives should be taken between now and 2012 in the field of trade. The idea that the EU *Trade strategy for Europe 2020* would become one of the EU flagships in view of *UN 2012 on*

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<sup>46</sup> See as well report 'From Waste to Resource', 2006 World waste survey abstract

<sup>47</sup> see French "*Analyse des marchés 'filiales vertes'* 10/2009 as well as '*Roadmap 2050. A practical guide to a prosperous low-carbon Europe*'. ECF

*sustainable development* needs to be abandoned as the Commission strategy doesn't provide the right signals and another form of leadership needs to be designed so that trade becomes an enabler of sustainability by developing new co-operation to close the loop. The Commission trade/raw material approach misses key elements : (i) according to Article 20 G of GATT agreement, once a WTO Member State is declaring a commodity 'strategic', this commodity is no more under WTO rules ; (ii) trade policy is not providing incentives towards resource efficiency. It appeared obvious that major companies are ahead of DG Trade approach and major changes in Companies management's thinking might be observed. New open innovation and supply chain collaborative platforms are emerging.

The concept of innovation is evolving and new business models are appearing with (1) reverse innovation - conceived in emerging economies and commercialized globally, (2) polycentric innovation - due to a global share of knowledge (open source), (3) innovation to develop products and services affordable by the very poor.

*'Poles of clean and sustainable growth'*<sup>48</sup> in the European Union, emerging economies and developing countries could contribute to re-establishing equilibrium between supply and demand, and moving towards patterns of production and consumption along sustainable development lines. Such restructuring, combined with accelerated technological innovation and deployment, could help obtain four principal results: (i) Improvements in people's quality of life and social equity, as well as the creation of new opportunities for job and income-generation; (ii) Savings in material, energy and resources, and a drastic lowering of environmental impacts, including the reduction of GHG emissions; (iii) Increased corporate competitiveness and the level of innovation of companies; and (iv) A reduced degree of dependence on fossil fuels, enhanced energy security and more affordable access to energy. All these results would make a tangible contribution to fulfilling the MDGs.

Rio+20 should be the opportunity for sustainability/eco-innovators part of global value chain to meet with their partners of the other part of the world and discuss their co-operation initiatives in the framework of or in support to the EU Resource Efficiency Strategy, leverage towards a *'Green Economy within the context of sustainable development and poverty eradication'*

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<sup>48</sup> UNCTAD. Trade and Environment Review 2010.