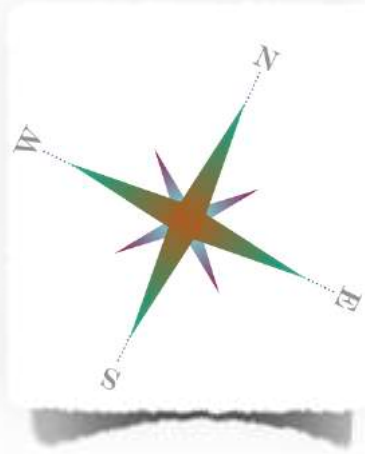

# A Systemic Interpretation of The European Union Green Deal




# EXECUTIVE SUMMARY

*A Green Deal aiming at a sustainable society for future welfare.*
*A harmonic interpretation of the Green Deal in a systemic perspective.*

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In November 2019, the European Union decisively lead the way towards a Green Deal initiative. A green New Deal for Europe - ideally the World. The charting has by now reached its audiences. Yet, what does it fundamentally need to be implemented? That an authentic holistic rendering of its constituents may underpin the way towards authentic accomplishments.

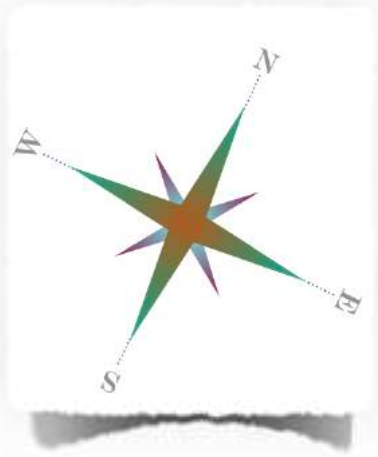
This quest led the authors to interpret the original text within a more integrative configuration. To generate a proper systemic mould for the Green Deal dimensions to be deployed across society. Thoroughly, until landing a portfolio of actionable projects in systemic perspective. Integrating the irreducible interactions between all its dimensions - environmental, social, economical, financial, ethical, and cultural.

In the first place, they moulded the original objectives into the formulation of a cohesive *Green Deal Problématique,* confronting it to the key elements of its dominant design. In parallel, they elicited the critically associated knowledge base to enhance, clarify, and reformulate the related central notions in their respective dimensions.

By analyzing surrounding core elements of the current dominant design of society and economy, a striking contrast obtained enabled the powerful definition of six powerful directional blueprints - pivotal concepts for impending systemic endeavors. In turn, the systematic conceptual expansion of the latter lead to a number of advanced formulations. Projecting them systemically engaged into a harmonized portfolio of about 50 key actions, coordinated through 4 strategic axes forming the Green Deal Compass - a gateway to futures-oriented plans for policy makers, experts, politicians, decision-makers, and other socio-economic players take-up.

It then becomes possible - for all involved stakeholders - to develop their practical ways to define, harmonize, and operationally conduct the approach and the associated actions plans, together with their proper objectives, constraints, and indicators.

The whole undertaking was made possible thanks to an appropriate implementation of the C-K (Concepts-Knowledge) theory from the Centre de Gestion Scientifique of Mines ParisTech - the long acclaimed constructive and operational design innovation methodology for industry and institutions alike.




# RÉSUMÉ OPÉRATIONNEL

*Un Pacte Vert visant à une société durable pour le bien-être futur.*
*Une interprétation harmonique du Pacte Vert dans une perspective systémique.*

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En novembre 2019, l'Union européenne a ouvert la voie à une initiative, le Pacte Vert ou Green Deal, pour l'Europe - idéalement pour le monde. La cartographie a désormais atteint son public. Mais de quoi a-t-il fondamentalement besoin pour pouvoir être mis en œuvre ? Qu'une authentique dimension systémique de ses constituants puisse ouvrir la voie à sa réelle réalisation.

Cela a conduit les auteurs à interpréter le texte original de ce Pacte Vert dans une configuration plus intégrative et à générer un moule approprié à ses dimensions systémiques de manière à déployer au sein de toute la société un portefeuille de projets réalisables dans une perspective intégrant les interactions irréductibles entre toutes ces dimensions: environnementale, sociale, économique, financière, éthique et culturelle.

En premier lieu, ils ont modelé les objectifs originaux dans la formulation d'une Problématique du Pacte Vert cohérente, la confrontant aux éléments clés de ses concepts dominants. En parallèle, les principales notions de base associées à ces objectifs ont été précisées de manière critique en vue de faciliter la clarification et la reformulation des principes clés évoqués dans le document dans leurs dimensions respectives.

En analysant les éléments centraux caractérisant la conception dominante actuelle de la société et de l'économie, le contraste saisissant obtenu a permis de définir six puissants plans directionnels - des concepts pivots pour y intégrer une dimension systémique indispensable.

L'expansion conceptuelle de ces derniers a conduit à un certain nombre de formulations avancées et à les projeter systémiquement dans un portefeuille harmonisé d'environ 50 actions clés, coordonnées à travers 4 axes stratégiques formant une Boussole du Pacte Vert (Green Deal Compass) - une passerelle vers des plans orientés vers l'avenir pour les décideurs politiques, experts, politiciens, décideurs et autres acteurs socio-économiques.

Il devient alors possible pour toutes les parties prenantes impliquées de développer leurs propres pratiques et moyens pour définir, harmoniser et conduire opérationnellement leur approche et les plans d'actions associés, ainsi que leurs objectifs, contraintes et indicateurs appropriés.

L'ensemble de l'entreprise a été rendu possible grâce à une mise en œuvre appropriée de la théorie C-K (Concepts-Knowledge) du Centre de Gestion Scientifique de Mines ParisTech - une méthodologie de conception innovante constructive et opérationnelle, adoptée de longue date tant par l'industrie que par de multiples institutions.

# AIMING AT A SUSTAINABLE SOCIETY FOR FUTURE WELFARE

In a seldom precedented move, the recently appointed European Commission College announced a European Green Deal on 11 December 2019.

Widely considered the most important EU endeavor since the historical creation of the Single Market, its President dubbed it *« the new growth strategy »* and its 27 pages public document is now breeding the main priority of the European Commission[1].


**The European Green Deal**

We want to reconcile our economy with our planet, and make it work for our people.

The purpose of the present publication is to strengthen the original Green Deal effort by a proper systemic deepening enabling parallel take-up by impending society's stakeholders.

## Key-words

European Green Deal - Systemics - Sustainability - C-K theory implementation.

## WHY A SYSTEMIC APPROACH IS IN DIRE NEED

Acting on the bewildering scale of challenges ahead, which merely encompass society, politics, economy, and the environment, the Green Deal package leads to fostering a large overhaul of practices for reaching climatic neutrality by 2050 - a yet unsought challenge in futures design.

Still, to congruously align its ambitious social, political, industrial, environmental, and financial objectives, the traditional, altogether dissociative analytics ways, would likely fall short of obtaining an overall transformative effect. Instead, the here advocated narrative unquestionably commands a strategic integrative reinterpretation for all stakeholders' relative capacities. It commends a proven methodology capable of enhancing a *fully systemic design* that a European Union wide implementation would deserve.

[1] See a factual content summary of the European Green Deal in ANNEX 4.

The virtue of adding dependable systemic thinking in method, approach, conduct, and behavior has become a dire necessity in post-modern societies if only to thrivingly guide them into their possible positive futures. Failing doing so gets society, economy, and the environment prone to policy, governance, and implementation discordance as socio-economic and planetary systems would break down at the growing pressure of incompatible constraints and contradictions.

This crucial observation led to found a full systemic reinterpretation of the Green Deal, integrating this dimension as a living implementation tool that can support all its impending stakeholders towards reaching the advocated goals. The present work develops, on the basis thereof, a wide spectrum of the many conceptual paths leading to concrete proposals and field actions across a variety of domains and sectors in the current civilizational socio-economic transition. It so paves the way towards the direct implementation of a number of innovative and concrete projects in targeted bandwidth application domains.

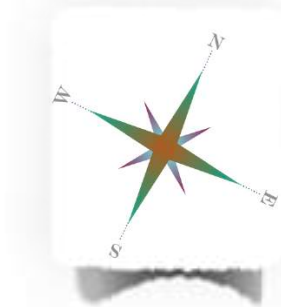
## THE MAKING-OF THIS GREEN DEAL SYSTEMIC INTERPRETATION

### Ethos plane

Driving the Green Deal Development! A challenge that has come of age for the EU member states together and beyond as well. By producing this work, the authors are committed to growing the futures design as a whole, aren't positioning for market share fight, yet are here to bring to the table a contemporary conceptual amplification that the Green Deal required: a systemic dimension and interpretation. Through it, they seek to contribute to building a growing global community driven by the Green Deal spirit. Let this shared vision allow to explore the findings further and farther, towards yet uncharted territories of a more balanced human-planet symbiosis.

### Partnership plane

The present work was designed and performed thanks to the highly complementary combination of two seasoned professionals who joined forces to reinterpret the Green Deal at the light of modern systems sciences, while enacting a proven futures-based methodology capable to land a coherent bundle of explicit, complementary, and back-justifiable concrete actions. Dr. Jacques de Gerlache, a senior practitioner in notably chemistry, bio-chemistry, the environment and energy transformation issues, provided the multidimensional expertise, along with his vast reference knowledge bases. Dr. Patrick Corsi , a futures design practitioner, was the methodologist and architect for conceiving the corresponding, and yet unknown, futures-based concepts. The Brussels-based team operated on a commonly agreed strict timing through videoconferencing sessions.



# THE METHOD AND APPROACH FOLLOWED

## RATIONALE: FOR THE GREEN DEAL, INTEGRATE ITS SYSTEMIC DIMENSIONS BEFORE ALL

As professionals since long, then analyzing the novel Greed Deal (GD) publication with much interest, it became soon obvious that any commendable take-up from its many sections would have to consider the whole content as… a single whole and its many components to be tackled in due synergy. This is however seldom done, as the dominant field implementation ways proceed rather by *a priori* decoupling sections, stakeholders, and challenges and tackle them away from each other. Such daunting task would unavoidably reveal - then grow further - inconsistencies in views, even contradictions in approaches, all ineluctably present in societies. This was fatally seen as old thinking, going back to past century approaches.

Instead, the authors contemplated a way to stir the parts, together as one. In all seriousness, this is a systemic approach, whereby the top level finality of the GD would make emerge its systemic dimensions among its many sided constituents, as themselves converging towards that destination.

Only by integrating an irreducible systemic dimension one may warrant the reaching of a system's finality. And, *a fortiori* of the overall system's values. Otherwise, dominant values tend to appear that are at best only those of a sub-system, creating shifts and bias in values. The completeness of the GD achievement is fundamentally dependent on the possibility of coherently incentivizing not any one part but harmonizing the whole. Limiting the work to only analytical ways unavoidably carry divisions and preeminences - a dose of intellectual dissociation that tends to ignore and reinforce unbalances in ecosystems and their multiple interacting causes. These ultimately cause major disruptions in living ways.

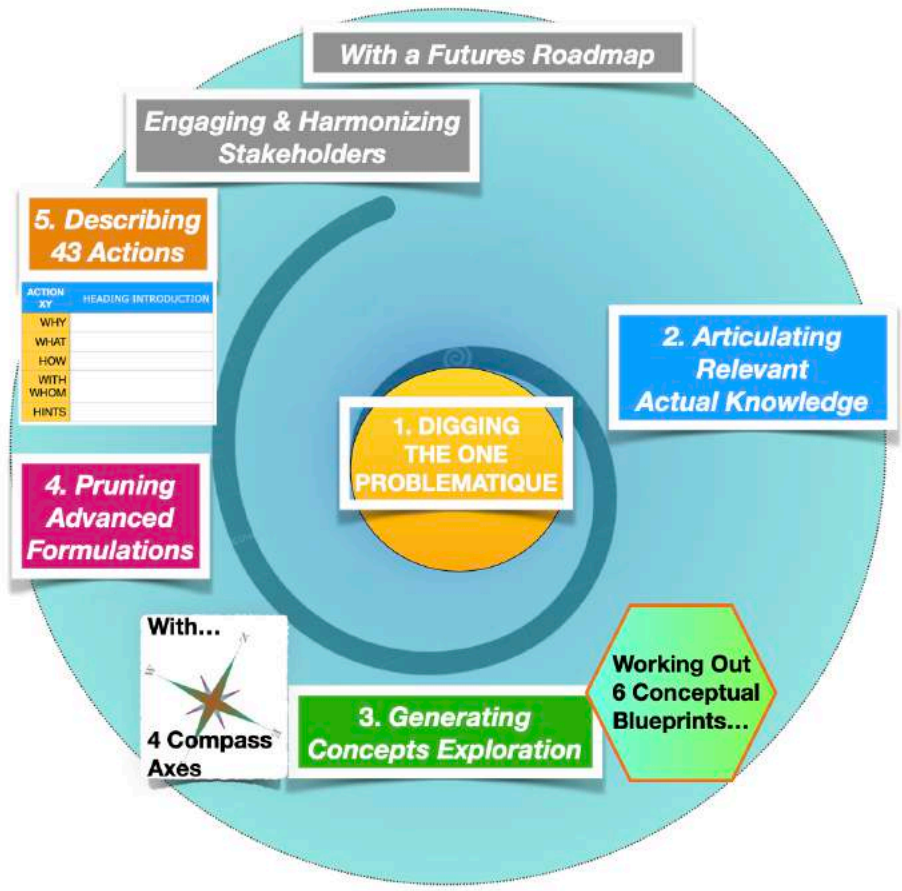
It is clear that a systemic dimension favors, even requires, shifts from pre-structured and rigid forms (hierarchical, pyramidal, etc.) of governance towards more circular mechanisms where all stakeholders involved in the various dimensions are on « equal » footing, equal meaning that they contribute and receive from the whole. It is no coincidence that circularity is a fundamental term because it is associated with movement, flows of any sort of energy (values, competence, material goods, etc.). Which term entails collaboration, the sharing of common interests and means in the face of the system finality.

The ways to open some GD bearing walls were acutely searched through with, as a general overlaying principle, to not add any root working concept that is not already present in the original GD document. In this way, the authors strived to remain within the spirit, context, and focus of the Commission's publication. No element external to it - be they personal opinions or spurious additions - was therefore introduced intentionally. Except for, when appropriate, some links to other initiatives acting in the same direction as, for example, the 17 *Sustainable Development Objectives* of the United Nations[2].

## IMPLEMENTING A DESIGN-BASED, FUTURES-ORIENTED METHOD

The behavior of socio-economic systems originate from the collective dynamics of their multiple agents and also those of other dimensions more or less (in)directly involved, such as the financial, sanitary, ecological and political ones. An inter- and trans-disciplinary approach was therefore used to tackle the properties emanating from them.

Yet, the question remained as *how to represent the GD when integrating its systemic dimension for action, while not breaching it*. The authors observed that a clear departure from purely reductive problem-solving techniques, plus the implementation of a method suitable for tackling inherently complex problématiques are essential for the present undertaking. Hence, the overall futures charting follows a design-based method (called C-K for Concepts-Knowledge[3]) expanding conceptual explorations in different spaces.




To undertake this process, five steps were deemed necessary (see above figure):

1. Extracting the core points from the document and reformulating them for outlining a clear vision, in order to root the workable *Green Deal Problématique,* which can receive wide agreement.

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[2] https://unstats.un.org/sdgs/report/2019/The-Sustainable-Development-Goals-Report-2019.pdf.

[3] Here, C-K represents an implementation form C-K theory from Mines ParisTech.

2. Based on it, extracting and gathering the reference glossary of primary notions (e.g. in economy, regulation, health, climate, pollution, etc.) found in the GD and classifying them as knowledge notions for reference, this forming the raw knowledge base. A corpus of 89 key terms is the process reference.
3. Working out a few blueprints in conceptual form (here, 6). Uncovering the key features behind the concepts found therein that have become *de facto* normative mechanisms, operations ways, or the many art features that have so far won the unquestioned consecration of a society's stakeholders (e.g. the predominance of search for profit, the structure of a supply chain, the agreed local/global rapports) - often called a *Dominant Design*. The 6 blueprints could be capsulized into 4 projecting axes. Then, generating systematic expansions in the yet unknown - an unrelenting effort in the unknown.
4. From the voluminous production of the generated advanced formulations, pruning those which can arguably be drawn into future socio-economic realities. There were 55 such admissible concepts.
5. This collection could be condensed into 43 pictured Actions for the field, which definition can lead field realization.

With the above in stock, a truly symbiotic expansion could be operated conceptually from the expressed *GD problématique* in several directions named the *blueprint projectors,* always with reference to the primary notions and the dominant design expressions. Coalesced dominant designs have deepest impacts on both a society structure, ways of operating, scaling up, and…resistance to change[4]. Hence, the utmost importance of considering it precisely and appropriately whenever building new cycles of becoming for hopeful synergetic futures.

It should be noted that, to avoid a premature closure of the reasoning, leading to a fatal inability to chart future actions with synergetic power at any time, this step requires the specific discipline of opening disjunctive partitions of the concepts at every reasoning moment.

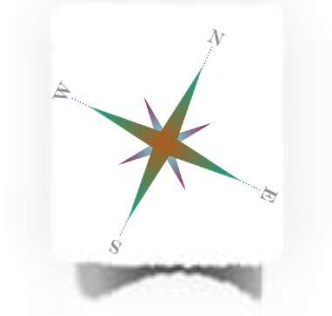
## THE VALUE OF THE PROPOSED METHOD

Besides the utmost importance of the GD problématique at hand for the EU member states - actually, the restoration of a sustainable green society and economy - this document evidences the vast design potential that becomes accessible to impending professional parties when implementing a powerful design innovation methodology.

In this document, the design innovation methodology actuated by the Concepts-Knowledge theory is one powerful element distinctively setting an orderly implementation. As a matter of fact, C-K theory signed off a remarkable array of innovations at large international firms, in aerospace, transportation, semi-conductors, high technology products and services, etc., as well as within SMEs and national administrations for above 15 years. C-K theory originates from world level research at Mines ParisTech - its Centre de Gestion Scientifique team and earned outstanding international distinctions[5].

[4] In terms of complexity science, they act as progressive attractors within a system, leading to local equilibria.

[5] A few bibliographical references are provided at report end.



# DIGGING UP THE CORE GREEN DEAL PROBLEMATIQUE

This section is concerned with expressing the overall Green Deal problématique in a tractable way. Let the GD finality be expressed in a formal way as

$$\mathbf{C0 = X, Pi(X), i= 1, \ldots,}$$

where the « object » **X** is wanted to satisfy a series of properties **P(X).**

The Pi properties are wished, desirable, while the whole **C0** expression bears the *sine qua non* condition that it is undecidable, meaning that we can't prove it's either already done, somewhat feasible, nor impossible to do. Otherwise, we would express something that either exists, is dubbed as feasible or impossible to do, thus closing down the whole approach).

Taking now the Green Deal document content, we directly find a first raw formulation, as below.

## THE RAW FORMULATION OF THE PROBLEMATIQUE « THE SYSTEMIC DIMENSION OF THE GREEN DEAL »

**C0 -** The **(X = European Green Deal)** proposal is adjunct with properties:
- P1(X): Launching a new growth strategy for the EU.
- P2(X): Supporting the transition of the EU to a fair and prosperous society that:
  - responds to the challenges posed by climate change and environmental degradation,
  - improves the quality of life of current and future generations.

This initial formulation underpins a highly complex and intricate number of conditions. Let's first disentangle their various dimensions by expressing these in a simple form, as follows.

**A first dimensional reformulation of the root concept**

**C01 - « A Systemic Green Deal that considers together:**
- *Stakeholders;*
- *Sustainability in socio-eco/no/lo/mic ways;*
- *Constraints (sanitary crisis, economic crisis, social crisis).* »

A fundamental property required for economies is to comply with *systemic circularity,* meant to ensuring sustainability by preserving the reference capital. In this context, the notion of *Capital* is taken in its most general assets definition, encompassing economical and financial assets, but also the ecological, social, and ethical ones. This allowing the preservation of futures.

By analyzing the mandate of the European Green Deal (GD) text, it can be furthermore observed that it seeks to create fair competitive conditions within the European Union that are fair and avoid competition distortions from

third countries having for instance less stringent environmental and climate regulation policies (e.g. by introducing import taxes). This leads us to reformulate the root concept as follows.

**The root concept: a second explorative reformulation**

**C02 - « A systemic Green Deal:**
- where the global and harmonized stakeholders seek to *ensure*:
  - socio-eco/lo/no/mic sustainability
    - *by including* resources, processes, and practices circularity
  - *to preserve*:
    - planetary capital
    - human societies
    - activities, incl. economies
  - trans-generational welfare »

This formulation dynamically includes and combines the space and time dimensions with societies structural patterns. At this point, the *Sustainability* rationale gets understood as *using* the Planet *revenues*, but not its *capital*.

Specifying further the wished properties for the initial problématique, we can obtain the following properties arrangement. We seek here the most high level delineative form possible[6] and evidently, the apparent composition obtained is not unique as different groups of persons would architect the coding differently. Yet, the same top level properties normally follow from analyzing the given problématique.

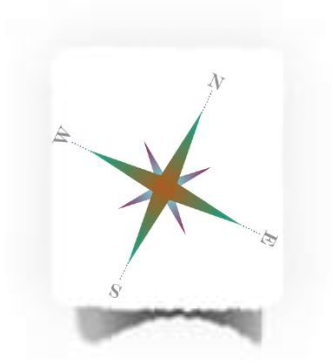
A third reformulation can then be done to be used for the subsequent work. The C03 expression will be used for the later conceptual investigations. The bolded notions are the anchor points for the latter.

## THE ROOT CONCEPT: AN AMPLIFIED REFORMULATION

**C03 - « A systemic and global Green Deal with its sy**

1. Encompassing, involving, and harmonizing all **stakeholders,**
2. Aiming to seek the **means** and **tools** mandatory for **ensuring welfare:**
   a. At the **global** and **sustainable « socio-eco/lo/no/mic »** level:
      i. By limiting the use of natural resources to the **yields** of the **planetary capital**,
      ii. Through adoption of **appropriate processes** and **practices** (a.o. for the optimisation of the circularity of resources uses),
      iii. Taking into account the **intertwined actual constraints** (a.o. climate, sanitary, food, social, economical and political crises, etc.),
   b. For the **balanced evolution** (i.a. repairing/restoration, homeostatic preservation and innovative improvement) **of**:
      i. **Planetary capital**,
      ii. The **well-being** of human societies,
      iii. The underpinning **economic activity**,
   c. For **trans-generational** and **symbiotic societies** and **planet**.
2. Within a **democratic governance** context. »

[6] Which construction is therefore done at semiologic level rather than lexical.



# ASSEMBLING THE GREEN DEAL ROOT KNOWLEDGE BASE

Any further conceptual investigation of the root knowledge will necessitate to set up a base identifying the relevant and important terms and their underlying concepts to work upon by extracting these notions from the Green Deal document - - albeit remaining at a high definitional level. More precisely, the *start-off K0 knowledge base* will be composed of the conceptual clusters obtained by scanning the GD. K0 may, and possibly should, be later augmented by adjoining additional terms and concepts which may be deemed necessary for pursuing the exploration of the general GD problématique.

## THE CRITICAL NOTIONS

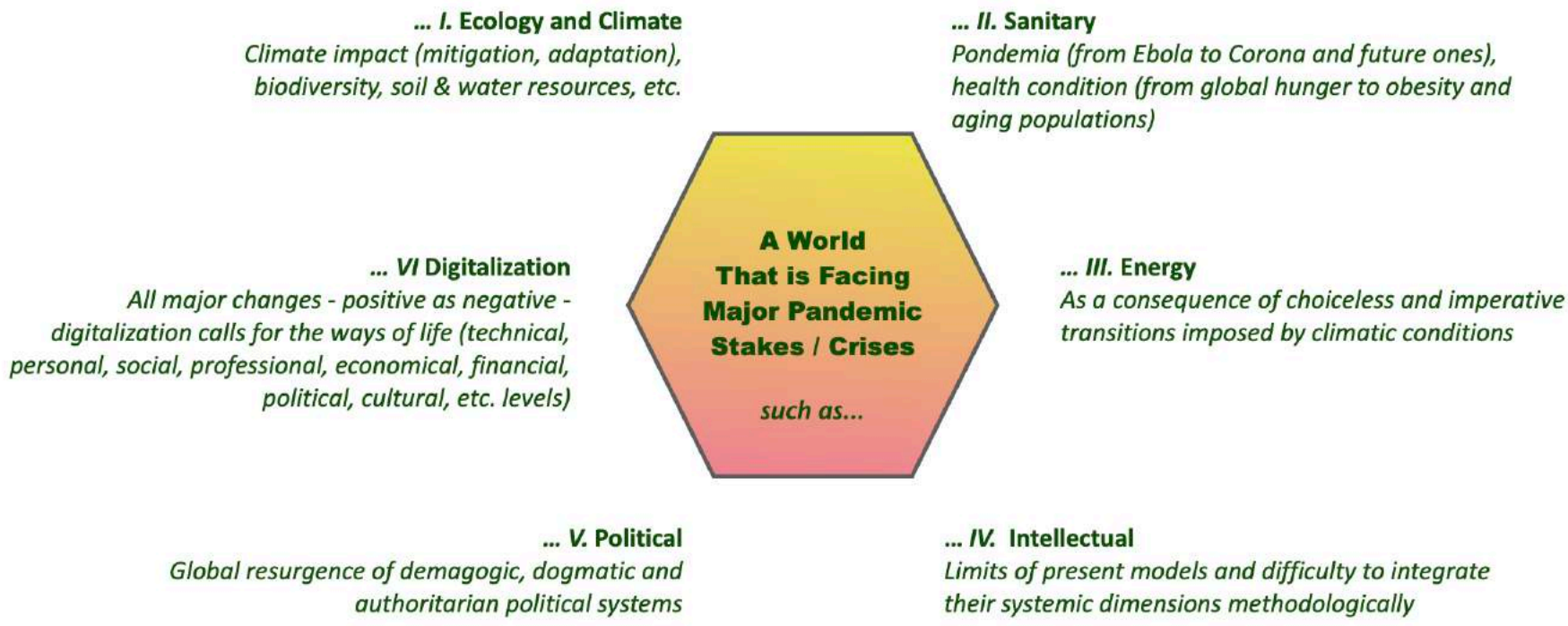
ANNEX 1 provides a 'Reference Terms Appearing Within the Green Deal Document' section. When deemed necessary, suggestions clarify their conceptual level more explicitly. In particular, some formulations supporting circularity are enhanced, which is a fundamental notion in the systemic dimension renderings. In the later stages of the conceptual expansive work, these reference terms will be expressed to bear three wished properties:

1. **Have traction** within the reference ecosystem,
2. Are **desirables** for society and its participants,
3. Are **understandable** by third entities and stakeholders (institutional or not).

## PLOTTING AND ANALYZING A DOMINANT DESIGN OF THE PRE-GREEN DEAL STATUS

The dominant designs of the socio-economic world underlying the Green Deal are first defined. This is obtained by pointing at the present and main constraints on the evolution of the systems managing populations (recapitulated in below figure). As a result of its evolution, the present and growing humanity has become quite significantly constrained in ways that limit its positive progress and sustainable evolution. The constraints get deeply intertwined to the extent that the environmental, social and sanitary, economic, financial, and political dimensions today form a « confinement continuum » bounding societies advancements and can no longer be disentangled without truly engaging into an approach integrating its systemic dimensions.

The figure and the table below reformulates the six spaces lockups above in the socio-economic dimensions, including the collateral dimension of Values.




**A DOMINANT DESIGN of the PRE-GREEN DEAL STATUS**

A. **Ecological and climate systems:** Among other things, the **consequences** of global warming, its management *(mitigation and adaptation)*. In particular for the:
   - **Food and water:** Demography, **unsustainable** production management *(earthy, maritime)*.

B. **Social systems:** The **complexity** of social needs, behaviors, and cultures vs social organizations. In particular for the:
   - **Sanitary dimension:** The **pressure** from physical, chemical, biological agents *(pollution,* diseases…).
   - **Others:** labour conditions, etc.

C. **Economic systems:** The **lack of coordination** between macro and micro levels, the **GDP** indicator measure and dominance, the **unsustainable** production altering planetary capital, the **predatory** practices of excessively liberal market.

D. **Financial systems:** Finance is **not geared to sustain** economy (speculation), obeys **zero-sum** games model, the **dissociation** between tangible and immaterial finance.

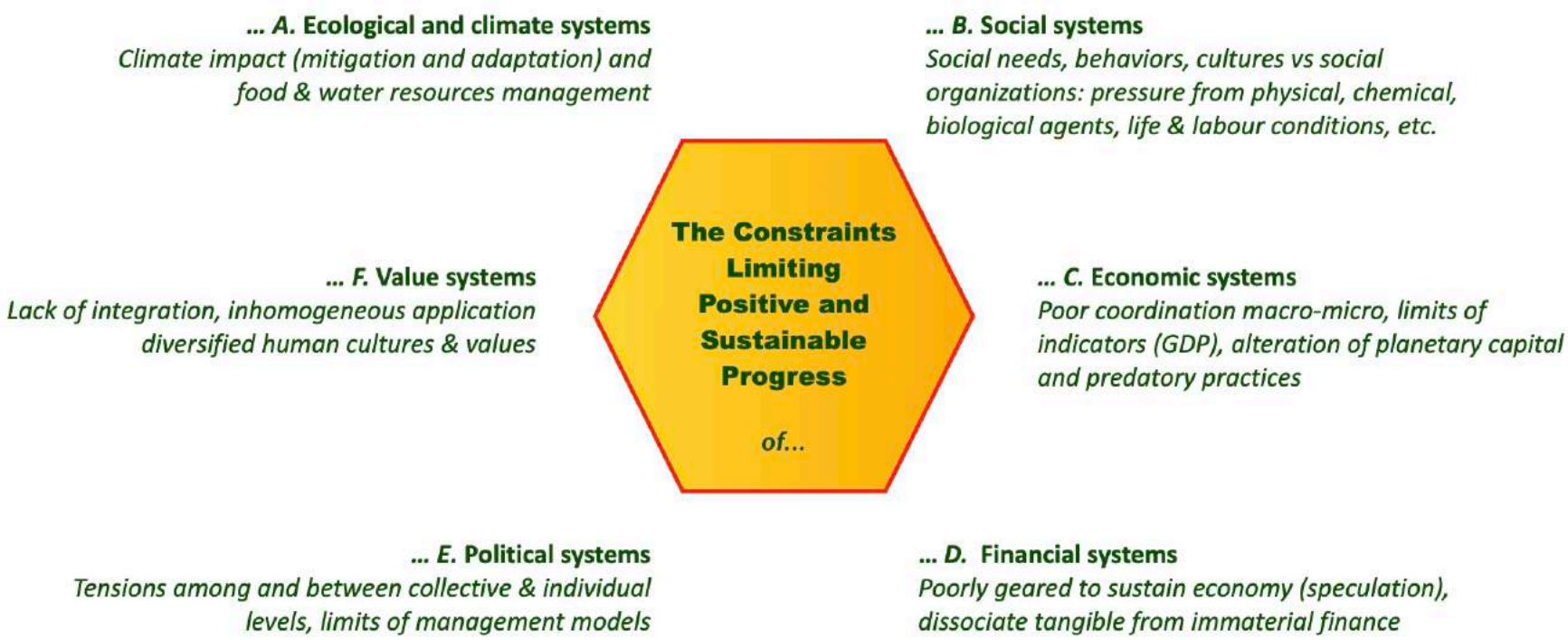
E. **Political systems:** The **tensions** among and between collective and individual levels.

F. **Value systems:** the **lack of integration** and **inhomogeneous application** of the diversified human **cultures** and **values**.

Revealing the present dominant design with discriminative words is especially useful to conscientiously angle ways out from it. We would also note the lack of commons in each dimension (e.g. resources are less and less pooled, rules are additive leading to their over-complexity), leaving less and less room for easy (policy and decentralized governance) maneuver.

By relating the overall dominant manifestation to the four locks of traditional economy which have been long sourcing the industrial chain: steel, electricity production, oil, and cement, the Anticipation Bulletin GEAB revealed a compelling qualitative analysis[7]. As iron and steel arguably built up the deepest bedrock underpinning economy, the unlocking of our dependence upon iron, with that of fossil fuels, would likely offer the fastest path to a radically different economy. While electricity production should now be understood within the larger energy transformation and transitions context, we should reckon that oil still largely roots economy. And cement is simply a shadow indicator of economic growth[8].

Plotting the six dimensions synthetically shows evidences better the need for a systemic decoupling that hopefully wouldn't break society's constituents (see figure below).




How to then arm the European Green Deal with action levers that responsible and citizens at large can happily adopt and ride? Focusing on a number of restoration points would be a solution at hand, yet is short sight as the above entanglements are deeply rooted in the functioning of industrial economy.

This report instead takes a deeper approach - first conceptual, then positively declarative, to root out what can stir a renewed and more sustainable economy.

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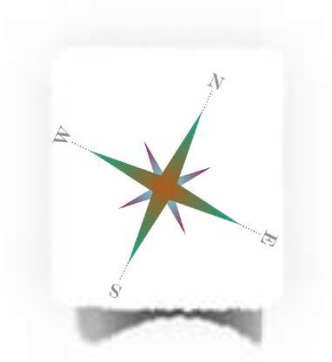
[7] This paragraph largely quotes 'Global Europe Anticipation Bulletin' political anticipation media, https://geab.eu/en/, accessed as of 25 May 2020.

[8] It is interesting to note that the sand necessary for cement production is somehow a limited and non renewable resource: http://wedocs.unep.org/bitstream/handle/20.500.11822/8665/GEAS_Mar2014_Sand_Mining.pdf?sequence=3&isAllowed=y - Summary available at: https://www.greenfacts.org/en/sand-extraction/index.htm



# PROJECTING BLUEPRINTS: A SYSTEMIC DIMENSION IN THE WAY TO FIELD ACTIONS

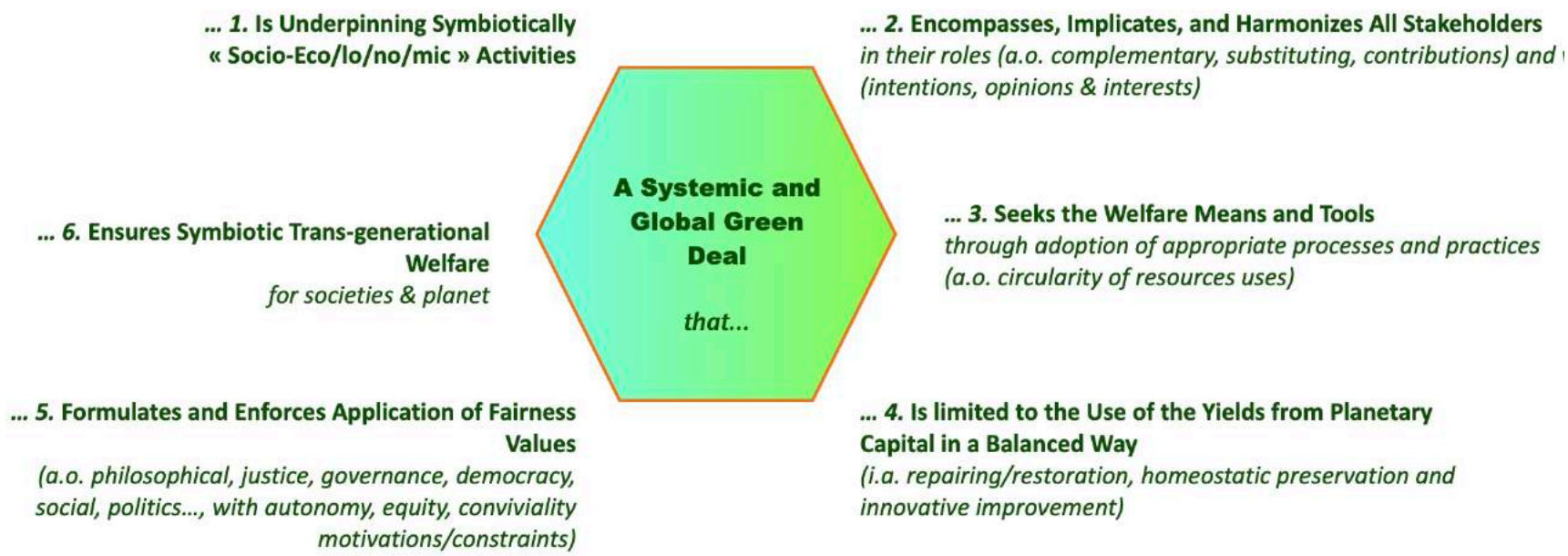
Assuredly, the global systemic dimension rendering is apparently lost at this time and will have to be recomposed at a later stage when landing concrete propositions for implementation. Taking stock of the third formulation C03 and the linearized expression of the present dominant design above, plus keeping the reference knowledge base K0 as reference, it becomes possible to draw several « blueprints » at conceptual level. This step is diligently achieved by directing detached portions of C03 into conceptual dimensions for further investigation. Evidently, the global systemic rendering is apparently lost at this time and will have to be recomposed at a later stage when landing concrete propositions for implementation.

## SIX BLUEPRINT CONCEPTS OF THE GREEN DEAL…

The six blueprint formulations of the Green Deal that could be delineated, which, should be viewed as alternative and partially covering formulations of the initial C03 - *« A systemic and global Green Deal… »* concept. The following figure recapitulates them. Bolded words accentuate both their systemic dimension and will authorize anchor points for later expansions.

1. A systemic, global, and **sustainable « socio-eco/lo/no/mic »** Green Deal underpinning **economic activity.**
2. A systemic and global Green Deal that encompasses, implicates, and harmonizes all **stakeholders**:
   - ***a.*** *in their **roles** (a.o. complementary, substituting, contributions…),*
   - **b.** *in their **views** (intentions, opinions and interests),*
   - **c.** *in their **actions** (coordinated among them).*
3. A systemic and global Green Deal that seeks the welfare **means** and **tools** through adoption of appropriate harmonized **processes** and **practices**.
   *(a.o. for the optimization of the **circularity** of resources uses)*
4. A systemic and global Green Deal **limited** to the use of the **yields** from **planetary capital** in a **balanced** way.
   *(i.a. repairing/restoration, homeostatic preservation and innovative improvement)*
5. A systemic and global Green Deal that formulates and enforcing application of **fairness values**.
   *(a.o. philosophical, justice, governance, democracy, social, political, autonomy, equity, conviviality motivations/constraints)*
6. A systemic and global Green Deal that ensures symbiotic **trans-generational** welfare for societies and planet.

The following figure represents the same in a more synthetic way.




## ...LEADING TO FOUR GREEN DEAL COMPASS PROJECTORS...

A further synthetic effort is made towards obtaining a higher degree of *genericity*. Getting as generic conceptual forms as feasible bears indeed high methodological value for two reasons:

1. It helps to decontextualize propositions from their possible dominant design basis and
2. It projects the investigation in more, yet uncharacterized directions, thus opting for maximizing the expansive potential[9] (also called « projectors »).

The four axes for a game changer Green Deal are thus drawn forth:

*Root concept C0:* A Systemic and Global GREEN DEAL:

C1 - That Activates Econo-lo-mies

C2 - That Mandates Stakeholders

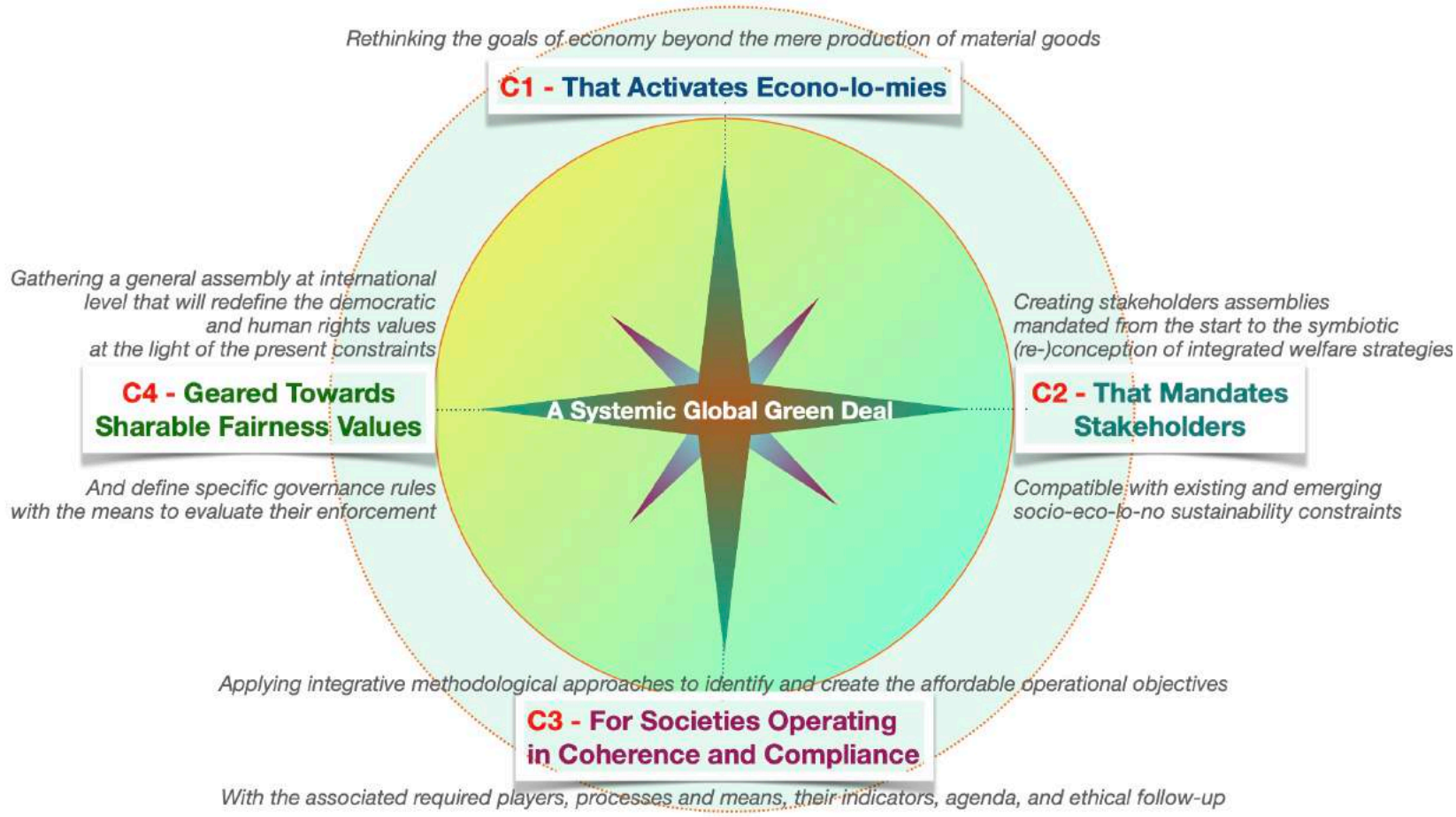
C3 - For Societies Operating in Coherence and Compliance

C4 - Geared Toward Sharable Fairness Values

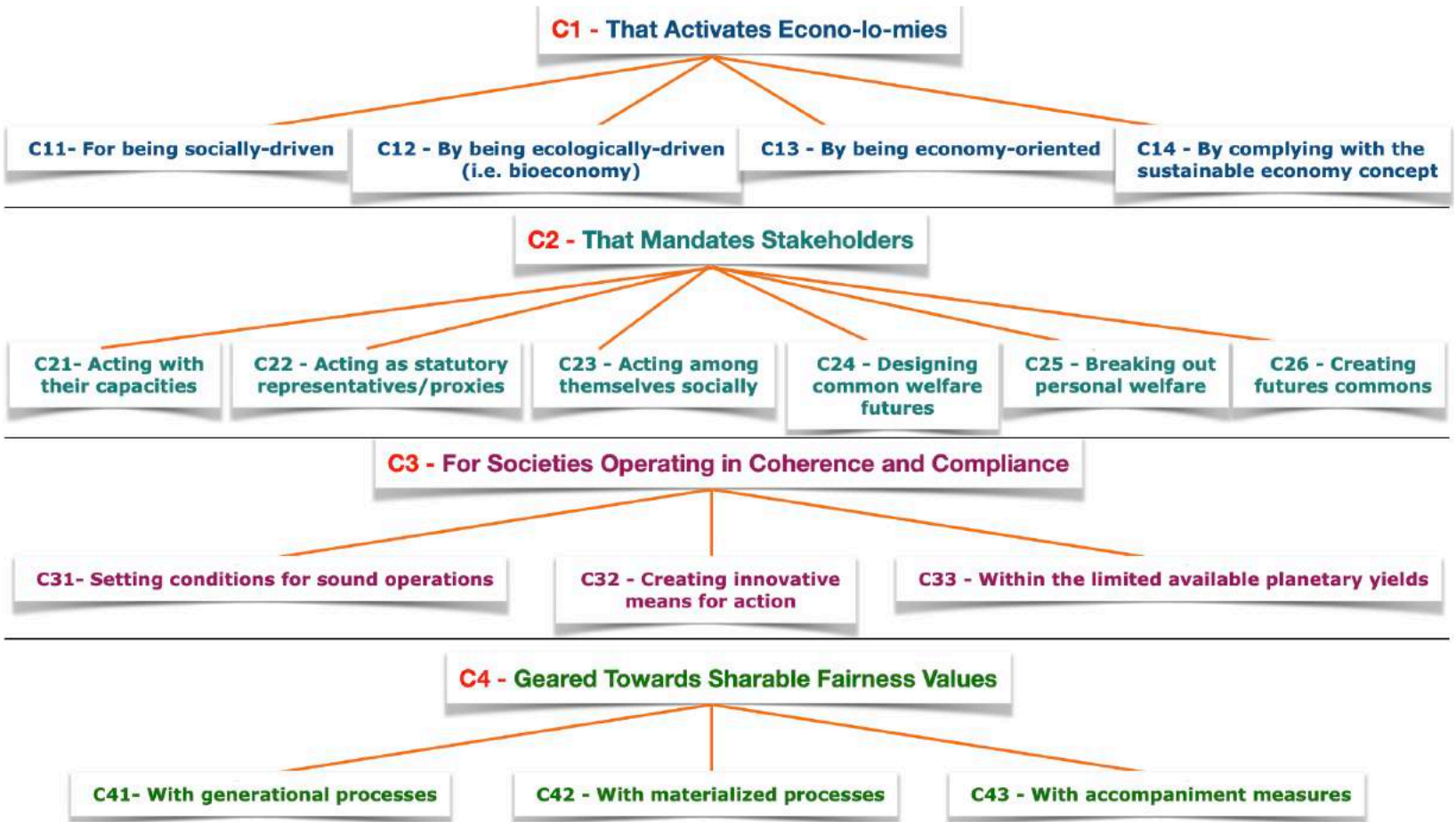
[9] C-K theory founds the later expansive power seek on elaborating a fair genericity capacity. This largely remains a non algorithmic human practice.

## …THEN FOUR MAIN STRATEGIC AXES PLUS THEIR EXPANSION…

The overall picture for unrolling the systemic Compass Green Deal above enables to pull the whole collection expanded concepts.



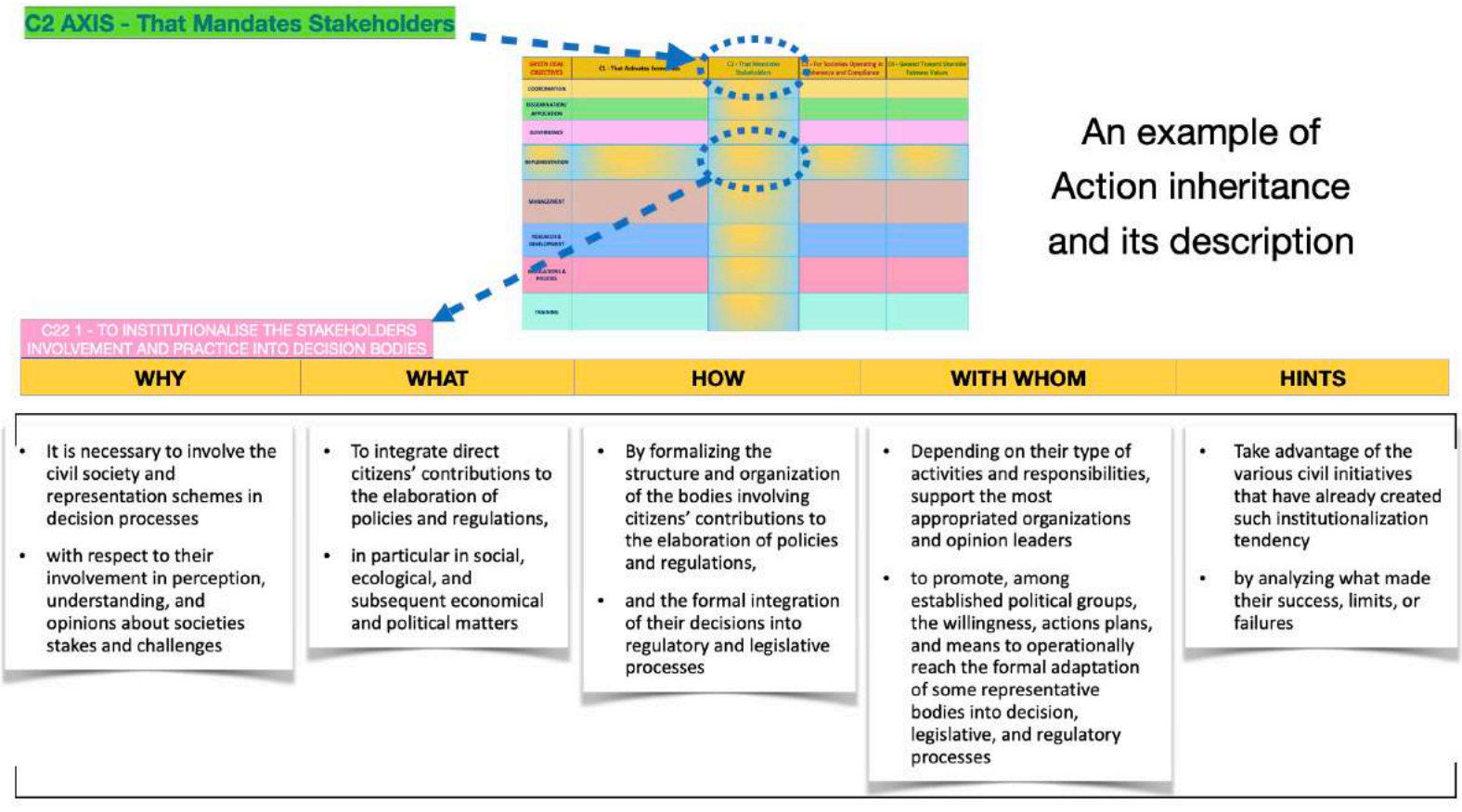

Here follow the next level expansions, whereby the complete tree development obtained is available in ANNEX 2.



# ...CALLING FOR 43 PROPOSITIONS OF ACTIONS


The above matrix groups all findings - axes, types of Actions, and the Actions titles at the intersections, within an integrative representation method involving all stakeholders. With the help of the Actions descriptions below, they can analyze, build, and materialize stepwise, coherent & sustainable harmonized strategic plans. Actions come documented with 5 sections (see below diagram):

- WHY: the rationale for considering it;
- WHAT: the actual contents to be considered, developed, or implemented;
- HOW: which approach seems to be considered at this stage;
- WITH WHOM: what kind of cooperation or collaboration seems relevant to perform the Action;
- HINTS: any comment or advisable suggestion, based on experience or else.




The arborescent diagram and the complete list of propositions are respectively developed in ANNEXES 2 and 5. Clear systemic links can easily be made between the 4 axes and the 17 global Sustainable Development Goals (SDGs) developed by the United Nations - this development being however out-of-scope of the present work.

# PRIORITY SERIES OF SYMBIOTIC ACTIONS TO MAKE THE GREEN DEAL REALLY HAPPEN

| GREEN DEAL PURPOSES | C1 - That Activates Economies | C2 - That Mandates Stakeholders | C3 - For Societies Operating in Coherence and Compliance | C4 - Geared Toward Sharable Fairness Values |
|---|---|---|---|---|
| COORDINATION | C13 2 - TO EVOLVE DEMAND TOWARDS QUALITATIVE RATHER THAN QUANTITATIVE GROWTH<br>C13 3 - TO RAISE AWARENESS ON THE VIRTUAL DISCREPANCY BETWEEN FINANCE AND REAL ECONOMY AND POINT TO RESOLUTION AXES<br>C13 4 - TO RESTORE MORE DIRECT LINKS BETWEEN THE ENTREPRENEUR AND THE INVESTOR | *NB. Actions C13 2, C13 3, C134 are promoted by Stakeholders.* | | |
| COMMUNICATION DISSEMINATION | C11 3 - TO FORMALISE THE SHIFT FROM GOODS-BASED TO WELFARE ECONOMY | *NB. Action C1 13 is adapted by all Stakeholders.* | C33 5 - TO DISSEMINATE THE ADOPTED PRACTICES, TRAIN THE RELEVANT PLAYERS TO MAKE THEM USED, AND PROVIDE FINANCIAL INCENTIVES | C43 1 - TO DISSEMINATE THE NEW FORMULATION OF THE DEMOCRATIC AND HUMAN RIGHTS VALUES AND THEIR ENFORCEMENT (Includes Actions C42 1 and C42 2) |
| GOVERNANCE | C13 1 - ENSURING THAT THE ACTIVITY CONSIDERED DOES NOT AFFECT THE PLANET CAPITAL | C22 1 - TO INSTITUTIONALIZE THE STAKEHOLDERS INVOLVEMENT AND PRACTICE INTO DECISION BODIES | | C42 1 - TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES |
| IMPLEMENTATION | C12 5 - TO DESIGN AND IMPLEMENT CIRCULAR ECONOMY MODELS<br>C13 1 - ENSURING THAT THE ACTIVITY CONSIDERED DOES NOT AFFECT THE PLANET CAPITAL | C22 2 - TO FORMALISE STAKEHOLDERS' CONTRIBUTIONS AND PRACTICES FOR INTEGRATION INTO DECISION-MAKING PROCESSES<br>C23 1 - TO STRUCTURE THE STAKEHOLDERS' COMPETENCIES, EXPERIENCE AND CONTRIBUTIONS TO DECISION-MAKING PROCESSES<br>C23 2 - TO STRUCTURE AND DEVELOP GUIDELINES FOR STAKEHOLDERS' OPERATIONAL MANAGEMENT IN DECISIONMAKING PROCESSES | C33 1 - TO QUANTIFY THE AVAILABLE YIELDS FROM THE PLANETARY CAPITAL EXPRESSED WITH ADAPTED INDICATORS | |
| MANAGEMENT | C12 3 - TO IDENTIFY AND IMPLEMENT THE NECESSARY REDUNDANCY AND PRECAUTION MEANS INTO PRACTICES<br>C12 6 - TO MANAGE CIRCULAR ECONOMY PROCESSES<br>C12 7 - PRACTICAL METHODS, TECHNIQUES, AND MEASURES FOR BALANCING EFFICIENCY AND RESILIENCE IN CONCRETE PROJECTS | *NB. Action C12 6 implicates the Stakeholders.* | C31 3 - TO MAKE APPLY OPERATING INSTRUCTIONS IN CONFORMANCE WITH POLICIES AND REGULATIONS<br>C32 1 - TO DEVELOP CREATIVE INDICATORS, PROCESSES, AND TOOLS ADAPTED TO THE REQUIREMENTS OF THE NEW SUSTAINABLE WELFARE OBJECTIVES AND REGULATIONS<br>C32 2 - TO DEFINE APPLICATION CONDITIONS FOR ENSURING FEASIBLE PROJECTS<br>C33 3 - TO APPLY THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS | |
| RESEARCH & DEVELOPMENT | C12 1 - TO DEFINE THE LIMITS OF RENEWABLE REVENUES<br>C12 2 - TO STUDY THE VARIOUS WAYS OF ECODESIGN OPTIMIZATION | C24 1 - TO DESIGN COMMON WELFARE FUTURES<br>C25 1 - TO RESEARCH FUTURE MODELS FOR EXTENDING PERSONAL WELFARE BY BREAKING CONVENTIONAL MENTAL PARADIGMS<br>C26 1 - TO RESEARCH FUTURES COMMONS AND FORMALLY INTEGRATE THEM INTO CURRENT PRACTICES | C33 2 - TO RESEARCH THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS | C41 1 - TO TAKE STOCK OF AND REPORT ON THE PRESENT EXPRESSION OF DEMOCRATIC AND HUMAN RIGHTS VALUES AS SHARED ACROSS THE WORLD TODAY<br>C42 1 - TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES |
| REGULATIONS & POLICIES | C14 3 - FIGHTING AND PREVENTING POLLUTION IN SURFACE AND GROUNDWATERS<br>C14 4 - OCEAN POLLUTION: CONTROLLING CHEMICAL, HUMAN WASTE<br>C14 5 - OCEANS POLLUTION: CONTROLLING IN PARTICULAR THE REMOVAL AND GENERATION OF PLASTICS WASTE<br>C14 6 - CONTROLLING OVERFISHING IN OCEANS<br>C14 11 - TO PURSUE THE PREVENTION OF UNDERGROUND SOIL POLLUTION (FUEL, ETC.)<br>C14 12 - TO CONTROL MINERAL RESOURCES EXPLOITATION (EXTRACTION AND USES) VIA REGULATIONS AND POLICIES | C 27 1 - TO PURSUE THE FOLLOW-UP OF INTERNATIONAL REGULATIONS & AGREEMENTS REGARDING CLIMATE<br>C 27 2 - TO PURSUE FOLLOW-UP REGULATIONS LIMITING OR ELIMINATING ATMOSPHERIC POLLUTANTS<br>C27 3 - TO PURSUE THE REGULATION OF PHYTOSANITARY (PESTICIDES, NUTRIENTS, ETC.) PRODUCTS AND OTHER POLLUTANTS USES<br>C 27 4 - TO ADOPT STRICT REGULATIONS ABROGATING ECONOMICAL, FINANCIAL, AND ECOLOGICAL PREDATORY PRACTICES | C33 4 - TO ADOPT STRICT REGULATIONS ABROGATING ECONOMICAL, FINANCIAL, AND ECOLOGICAL PREDATORY PRACTICES | C42 1 - TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES |
| TRAINING | C11 2 - TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVOURS<br>C12 4 TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES | *NB. Action C11 2 engages the Stakeholders.* | C33 5 - TO DISSEMINATE THE ADOPTED PRACTICES, TRAIN THE RELEVANT PLAYERS TO MAKE THEM USED, AND PROVIDE FINANCIAL INCENTIVES<br>C31 1 - TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS<br>C31 2 - TO DEVELOP OPERATIONALLY RELEVANT INTEGRATED TRANSITION PLANS PUTTING IN PRACTICE THE REVISED STRATEGY OF SUSTAINABLE WELFARE DEVELOPMENT | |

# ANNEX 1 - REFERENCE TERMS APPEARING WITHIN THE GREEN DEAL DOCUMENT (CONSTITUTING THE ROOT KNOWLEDGE BASE)

The following table recapitulates the notions that were found both important and relevant for interpreting and render the Grean Deal systemic.

### Main reference terms

Tableau 1

| REFERENCE TERMS APPEARING WITHIN THE GREEN DEAL DOCUMENT | COMMENTS AND SUGGESTIONS FOR THE CONCEPTUAL ENRICHMENTS |
|---|---|
| Linear industry | Not always a positive term as it is business-as-usual - Use as reference |
| Compatibility | Is part of integration |
| **Affordable** | That is compatible with the means and conditions (of a person, entity, etc.)<br>Property: Affordability |
| Allowances | Is an allocation (Carbon pollutant allowance) enabling credits for a specific action - Here used in the context of carbon emissions |
| Alternative infrastructures | Substitutive or complementary infrastructure that are put to use - Here mostly used in the distribution context in the transportation, freight or data domains |
| Changes in (consumer and business) behavior | The making of more sustainable, ecologically and economically compatible behavior (Behavior change in practices) |
| **Clean energy** | Respecting the allowance level |
| Clean products | What is below the ‘acceptable limit’ (tolerable limit) |
| **Climate neutrality** | Characterises a non impact on climate - Is without impact on climate equilibrium (human activity) |
| Compliance | What respects a norm - There exists only one compliance level |
| Compliance dashboard | Indicators assessing the compliance |
| Sustainability (debt) | The limit of sustainability is bankruptcy (failure, insolvency…) |
| Decarbonising | Decarbonisation leads to using non fossil fuels energies |
| Ecological status | The status respective to a compliance status: is the ecosystem sustainable, compliant with the indicators? |
| Ecological transition | A set of transitions determine the ecological status - A systemic phenomenon |

| REFERENCE TERMS APPREARING WITHIN THE GREEN DEAL DOCUMENT | COMMENTS AND SUGGESTIONS FOR THE CONCEPTUAL ENRICHMENTS |
|---|---|
| **Emission trading** | The allowance of emission quota are forming a true market - Cf. USA in the 80's (acid emissions) and after in other countries<br><br>To possibly improve by unlocking taxation at **buying** time.<br>**Extraction** trading: price the carbon at extraction time (coal, oil, gaz, oil&gaz, lignite…) as it is objective (by the ton) and therefore becomes much easier to process |
| Energy poverty | Energy supply accessibility (Energy affordability) |
| **Environmental degradation** | An ecological status exceeds the permit allowance - See budgetary, planetary, etc. overshoot<br><br>To be extended using a relative measure to better distinguish:<br>- Environmental capital neutrality - ECN<br>- Environmental capital degradation - ECD<br>- Environmental capital restoration - ECR |
| **Environmental impact** | When the capital (budget, planetary, etc.) is running out<br><br>Capital investment has the capacity to restore a situation iff appropriate conditions are verified: permaculture as opposed to monoculture, planting, biodiversity, etc.) |
| Environmentally-friendly | *'Non nuocere'* - When the capital is respected (ie maintained as is or improved) |
| **Excess nutrients** | Because of the unavoidable nutrients diffusion into the soil, use of nutrients is usually larger (esp. sandy soils) - Pollution is created by excess use of nutrients, therefore the soils biodiversity is weakened - societal costs (including water cleaning) become disproportionate wrt nutrients costs<br><br>Closed circuits enable the excess nutrients to be reused |
| Fairer society | When fairer practices, behavior, distribution, etc. are applied to all - 'Liberté, Egalité, Fraternité' becoming Autonomy, Equity, Conviviality'<br><br>Equitable society vs Fair society |
| Farm-to-Fork | Short food (supply) chain |
| Functional economy | A rather imprecise otion: the economy is based on service (usage) instead of possession<br><br>Economy of functionality |
| Green claims | « Green » is a rather ambiguous term. When pretending being eco-compatible - Eco efers to combining both ecology and economy<br><br>Pending a more precise definition for 'green' Eco-no-lo-compatibility (ECNC) |
| **Green investment** | An investment that tends towards (more) ecocompatibility |
| Green transition | A transition that tends towards (more) ecocompatibility |
| Green regulation | An regulation that tends towards (more) ecocompatibility |
| **Healthy environment** | A systemic but weak concept. A living environment that does not harm health<br><br>Living conditions that do not harm human and environmental health - Conditions enabling such environment |
| **Inclusive growth** | That advances equitable economic opportunities for society and its participants |

| REFERENCE TERMS APPREARING WITHIN THE GREEN DEAL DOCUMENT | COMMENTS AND SUGGESTIONS FOR THE CONCEPTUAL ENRICHMENTS |
|---|---|
| **Just transition** | A fair transition for society and its participants |
| **Monitoring mechanism** | A functional process that verifies the dynamics of a transition process by means of the selected indicators |
| Multimodal | Applies to different dimensions that interplay |
| Natural capital | « The world's stock of natural resources, which includes geology, soils, air, water and all living organisms » (Wikipedia) - Some lead to economic services (clean water, fertile soil) - Some are finite source of goods |
| Obsolescence | Applies when value or functionality is degraded, either intrinsically (technologically outdated) or deliberately (planned), or on the occasion of a failure |
| Regulatory framework | A set of rules (laws, regulation, directives…) that should be made and kept coherent as a system |
| Renovation wave | A dynamic refurbishing phase seeking to save energy in the context of energy efficiency for existing buildings |
| Resource security | The warranting resources accessibility as meant to locally ensure the feasibility of procuring specific goods |
| **Right to repair** | The allowance/willingness/capacity/enabling possibility for a user to keep and restore the functionality of a device, hence the device lifetime |
| Secondary raw materials | The re-sourcing of raw materials for making new components and products - Objects and devices can be reused until recycling of the components and materials |
| **Smart integration** | Is a long-range concept. The seeking of optimised solutions in terms of resources or consumption - Entails the taking into account of products lifecycles - Requires the harmonisation of rules for ensuring system-level solutions |
| Smart mobility | The optimisation of mobility needs wrt the means, payloads, and environmental/ social impact of the resources used - Requires the harmonisation of rules for ensuring system-level - Re-localisation diminishes the needs for physical mobility<br><br>Particularly applies to 2020 the-deconfinement phases for cities and countries |
| Space management sustainability | The issues of concentration, dispersion and other topologies as applied to megalopolis, crop fields, and secondary industrial activities - Is linked to population and other growths wrt sustainability |
| Stakeholders | The implication of all parties within an environmental, economic or else ecosystem for ensuring its finality, management and sustainability (by analogy, the orchestral set of musicians within an orchestra) |
| **Sustainable consumption** | The capacity to consume the interest of a capital without consuming the same capital - Applies to economic, social, and other domains |
| Sustainable development | The growth capacity in any domain as long as the capital is not affected |
| Sustainable Finance | Same in finance (financial capital) |
| Sustainable future | The capacity to ensure the well-being of a current generation without affecting the one of the next generations (generational hand-over capital) |
| Sustainable growth | A kind of growth that does not alter the resources capital - Cf. 'Sustainable development » |

| REFERENCE TERMS APPREARING WITHIN THE GREEN DEAL DOCUMENT | COMMENTS AND SUGGESTIONS FOR THE CONCEPTUAL ENRICHMENTS |
|---|---|
| Sustainable policy | A policy that respects the seek objectives (climate, diversity, circularity…) and their applicabilityin the long-t erm, based on rules which protect the planetary capital<br><br>Sustainable conducts should implement sustainable policies |
| Sustainable practices | Practices that are in adequation with sustainable objectives (eg can a forest exploitation be sustainable ?) |
| Sustainable product | A product that is designed, produced, used/consumed, wasted/recycled/ dismantled without affecting the planetary capital |
| Sustainable seafood | Is seafood that does not alter a given species capital or other sea capital (the marine ecosystem) |
| Systemic approach | An integrative management way that combines the dimensions of the stakes and put the stakeholders in dynamic relationships |
| Sustainable strategies | A strategy that meets sustainable objectives and is applicable in the long-term<br><br>Any sustainability concept should cover the two dimensions of means and duration |
| Sustainable solutions | A solution that fields a sustainable strategy |
| Taxation alignment | The harmonisation of policies and policy tools among themselves and wrt policies efficiency (eg fiscality alignment)<br><br>Is a form of sustainable solution |
| **Technological neutrality** | Technology should not be an obstacle to the integration objectives of the energy market |
| **(The) Energy system** | The whole set of (production and especially) use of energy means |
| Toxic-free | Applies to the threshold of non-desirable effects of physical, chemical, biological agents (substances, biological entities…)<br><br>Toxic-effect free (TEF) or ‘Toxicologically free’ |
| **Transformative policies** | Are policies that can contribute/unleash/promote energetic, social, environmental, biodiversity, etc. transitions |
| **Transparency** | The distinct structural and definitional clearness of the aims, objectives, and actions of the involved stakeholders and impending interests |
| Zero-tolerance | An ideal, not necessarily realistic objective: *« zero-risk does not exist »*<br><br>*An extreme criterion which would benefit from thresholding* |

## General notions supporting circularity approaches and models

Re-skilling - Up-skilling
Renewable - Renewable energy - Secondary raw materials
Innovation Fund
Bio-economy

## General systemic notions

Concepts that extend common understanding or practice, possibly the the state-of-the-art (novel concepts which may even be undecidable, therefore potentially lead to innovation).

« All sectors play their part » - *Harmony between players prevails. All players play their role. Requires coordination and integration*

Circular bio-based sectors - *Concerns (biological, industrial, etc.) circular activities which do not affect the reference capital.*

Circular economy - *The most general reference term, covering sectors and activities (products, services, etc.). Encompasses three dimensions: economy, players, activities.*

Circular products - *The term products also covers services.*

Coherence - *One modus operandi for global (ie systemic) operations - Can apply to local, not necessarily world-based activities.*

Collaboration - *One modus operandi for global (ie systemic) operations - Can apply to local, not necessarily world-based activities.*

Cooperation (regional, etc.) - *One modus operandi for global (ie systemic) operations - Can apply to local, not necessarily world-based activities.*

Comperation (collaboration then competition) - *A modus operandi for global (ie systemic) operations - Can apply to local, not necessarily world-based activities.*

Coopetition (competition then collaboration) - *A modus operandi for global (ie systemic) operations - Can apply to local, not necessarily world-based activities.*

## General reference terms

Concepts that belong to common understanding or practice.

Common European Interest - Cross-border - Competence framework
Governance - Partnerships - Policy
Environment, energy and climate Strategic raw materials
Sector integration - Growth - Energy efficiency

# ANNEX 2
# -
# THE ARBORESCENT EXPANSION WITH THE PROPOSED PRIORITY ACTIONS

This ANNEX provides the full tree structure obtained by the expansion process of the four axes of the Systemic Green Deal Compass. Within it, and according to the C-K theory implementation, all intermediate developments must bear the undecidable status, until reaching a decidable formulation, i.e. potentially feasible or dubbed unfeasible or logically impossible.

The way to handle any running item in the whole tree structure is to form sentences by starting from the root concept *« C0 - A Systemic Green Deal: C1 - That… etc. »*

At some point in the expansion process, a number of the concepts obtained can be dubbed feasible, albeit usually pending further work. The nature of the work can be of various natures and the following tables handily classifies the types retained here.

These tree leaves then are flanked with the title and classification of a specific Action (the work to be done). The sentence-based trace leading to the leave will provide the full justification for considering the leave. This is a key feature for prioritizing Actions between themselves and building strategic roadmaps.

The Sustainable Development Goals (see picture on side) were used as a background reference meant to address the expansive dimensions. This will later help giving birth to multiplied projects in the 17 fields of action. Still, this phase remains out of the scope of the present focused work.

For reference and field use, the high level specification of each of the 43 Action is provided in ANNEX 6. It constitutes the actionable start material, to be further discussed and deepened with policy and decision-makers, managers and other responsible as for implementing the Systemic Green Deal for the European Union.

# C0 - A Systemic Green Deal:

## C1 AXIS - That Activates Econo-lo-mies

***« Rethinking the goals of economy beyond the simple production of material goods. »***

### - C11- Activating an economy for being socially-driven

**a) by being welfare-oriented**

- by avoiding social degradation
  - through raising of unemployment
  - 3in living conditions
  - in political conditions
- by reinforcing conviviality in the emotional dimension
  - inter-personal relationships
- by developing a spiritual dimension

—> ACTION CO C11 1 - DIRECTLY LINK UP THIS ACTION TO C4 ACTIONS

**b) by favoring culture**

- as a collective education for enhancing quality in society
- as an enhanced mechanism for improving human capacities
  - covering the arc from thought processes to strategy

—> ACTION TR C11 2 - *TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVORS*

**c) by making advanced conceptual realizations emerge**

- through human socialization
- via the expansion of concepts
- via the compression of ideas
  - towards a convergence of ideas

—> ACTION DI C11 3 - *TO FORMALIZE THE SHIFT FROM GOODS-BASED TO WELFARE ECONOMY*

### - C12 - Activating the economy by being ecologically-driven (i.e. bioeconomy)

***« Rethinking an economy by optimizing the circular exploitation of only the renewable revenues of the planet capital in a creative way. »***

**a) compatible with sustainable limits**

- in terms of natural capital
  - preventing degradation *(environmental, etc.)*
- towards their full integration
  - smart integration by means of: *(in terms of resources - requires taking into account lifecycles)*
    - harmonisation rules
    - system-level solutions

—> ACTION RD C12 1 - *TO DEFINE THE LIMITS OF RENEWABLE REVENUES*

**b) by optimizing assets**

- the available renewable resources
  - with the whole range of decarbonized energy sources *(solar, wind, water, biomass, fossil, geo (geothermal), chemical (a.o. H, nuclear), gravity, (electro-)magnetic, superficial tension energy (capillarity, in nm), neural, etc.)*
  - materials
    - raw materials
    - through (circular use of) secondary materials

- by ecodesigning in:
  - design *(avoiding obsolescence)*
    - planned
    - unplanned
  - production
    - covering Extraction to Manufacturing and Use
    - through short supply chains *(Farm-to-Fork)*
    - other circularity means
  - products *(e.g. recycling, « right-to-repair »)*
  - services *(e.g. transportation)*

—> ACTION RD C12 2 - *TO STUDY THE VARIOUS WAYS OF ECODESIGN OPTIMISATION*

- the yields obtained

**C. by balancing efficiency and resilience**

- **for ensuring diversity**

  - by having a function covered by multiple species *(like pollinisers…)*
  - by having a species fulfilling several functions *(like earth worm)*

—> ACTION MA C12 3 - *TO IDENTIFY AND IMPLEMENT THE NECESSARY REDUNDANCY AND PRECAUTION MEANS INTO PRACTICES*

- **for creating circular economy processes**

  - in a downstream functional way
    - with service-based models
  - in an inverse upstream way through
    - matter concentration *(desalinization)*
    - matter extraction *(when extracted ore outperforms mineral shaft)*
  - with a full lifecycle view for enhancing perennial things
    - by acting on materials *(a.o. fossil carbon) (raw and secondary - opposing obsolescence)*
    - by acting on components *(opposing obsolescence)*
    - on objects *(opposing obsolescence)*
    - by exiting from linear industry models

—> ACTION TR C12 4 - *TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES*
—> ACTION IM C12 5 - *TO DESIGN AND IMPLEMENT CIRCULAR ECONOMY MODELS*
—> ACTION MA C12 6 - *TO MANAGE CIRCULAR ECONOMY PROCESSES*
AGGREGATES ABOVE THREE BULLETS

- **for reaching sustainability in non-diminishing-capital assets exploitation** *(all sorts of capital assets)*

—> ACTION MA C12 7 - *PRACTICAL METHODS, TECHNIQUES, AND MEASURES FOR BALANCING EFFICIENCY AND RESILIENCE IN CONCRETE PROJECTS*

## - C13 - Being economy-oriented

**a) by considering the adaptations necessary in the types of growth in existing dominant models**

- of material goods production
- of services provision

—> ACTION IM/GO C13 1 - *ENSURING THAT THE ACTIVITY CONSIDERED DOES NOT AFFECT THE PLANET CAPITAL (IN ENERGY, MATERIALS, AND NEGATIVE IMPACTS)*
*See: Action MA C12 3 TO IDENTIFY AND IMPLEMENT THE NECESSARY REDUNDANCY AND PRECAUTION MEANS INTO PRACTICES.*
*See: Action TR C12 4 TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES.*
*See: Action MA C12 5 TO DESIGN AND IMPLEMENT CIRCULAR ECONOMY MODELS.*

**b) by actuating new types of growth in the field**

- by desaturating markets *(i.e. the current fixation of society on material growth)*
- by influencing other types of consumption
  - through thought induction *(advertisement)*
  - through market actions

—> ACTION CO C13 2 - *TO EVOLVE DEMAND TOWARDS QUALITATIVE RATHER THAN QUANTITATIVE GROWTH*

**c) by decoupling finances from economy**

- by investing in economy for an immaterial gain
  - for a financial return
  - for power

—> ACTION CO C13 3 - *TO RAISE AWARENESS ON THE VIRTUAL DISCREPANCY BETWEEN FINANCE AND REAL ECONOMY AND POINT TO RESOLUTION AXES*

**d) by preventing the predation of assets**

- by extracting returns from the economic system *(impoverishing it)*
- by reinvesting them

—> ACTION CO C13 4 - *TO RESTORE MORE DIRECT LINKS BETWEEN THE ENTREPRENEUR AND THE INVESTOR*

**e) for reaching capital sustainability**

- for a sustainable return capacity
- for a sustainable reinvestment capacity

—> ACTION MA C13 5 - APPLYING FEASIBLE LIMITS FOR FREEING SUSTAINABILITY
*See: Action IM C33 1 TO QUANTIFY THE YIELDS AVAILABLE FROM THE PLANETARY CAPITAL EXPRESSED WITH ADAPTED INDICATORS.*
*See: Action CO C13 2 TO EVOLVE DEMAND TOWARDS QUALITATIVE RATHER THAN QUANTITATIVE GROWTH.*
*See: Action TR C21 1 TO DEVELOP RELEVANT CAPACITIES WITHIN STAKEHOLDERS CIRCLES BY RAISING THEIR AWARENESS LEVEL AND DEVELOPING A RELEVANT KNOWLEDGE.*
*See also: Action TR C12 4 TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES.*
*See also: Action TR C11 2 TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVORS.*

## - C14 - Activating the economy by complying with the sustainable economy concept by:

**a) restoring the (bio)climatic equilibrium conditions by:**

- reaching CO2 and GWP gases emissions neutrality *(i.e. does not impact capital)*
- preserving the existing climate equilibrium *(i.e. human compatible)*
  - *Kyoto and Paris Agreement and associated regulations for eliminating fossil carbon emissions*

—> ACTION RP C14 1 – *TO PURSUE THE FOLLOW-UP OF INTERNATIONAL REGULATIONS & AGREEMENTS REGARDING CLIMATE* - IS DESCRIBED BELOW AS ACTION C27 1

- preserving tropospheric to stratospheric air quality
  - Carbon monoxide, NOx sulfur oxides, stratospheric and tropospheric ozone, particles,, etc …

—> ACTION RP C14 2 - *TO PURSUE FOLLOW-UP OF MONTREAL PROTOCOL FOR OZONE LAYER AND OTHER REGULATIONS FOR ATMOSPHERIC POLLUTANTS*

b) **preserving essential geosphere resources in:**

- water resources management for:
  - restoring fresh surface and phreatic

—> ACTION RP C14 3 - *FIGHTING AND PREVENTING POLLUTION IN SURFACE AND GROUNDWATERS*

  - restoring oceans

—> ACTION RP C14 4 - *OCEANS POLLUTION: CONTROLLING CHEMICAL, HUMAN WASTE*
—> ACTION RP C14 5 - *OCEANS POLLUTION: CONTROLLING IN PARTICULAR THE REMOVAL AND GENERATION OF PLASTICS WASTE*
—> ACTION RP C14 6 - *CONTROLLING OVERFISHING IN OCEANS*
—> ACTION GO C14 7 - A TRANSNATIONAL GOVERNANCE OF OCEANS (cf. Conservative Energy Future)
NB. *Description waived as Action requires deeper operational investigation.*
—> ACTION GO C14 8 - AN OCEANS CHARTER RIGHTS
NB. *Description waived as Action requires deeper operational investigation.*

- soils
  - surface (ground)

—> ACTION RP C14 9 - *TO PURSUE THE REGULATION OF PHYTOSANITARY (PESTICIDES, NUTRIENTS, ETC.) PRODUCTS AND OTHER POLLUTANTS USE*
—> ACTION MA C14 10 - TO CONTROL OVERCROWDING LAND ALLOCATION
NB. *Description waived as Action requires deeper operational investigation.*

  - underground

—> ACTION RP C14 11 - *TO PURSUE THE PREVENTION OF UNDERGROUND SOIL POLLUTION (FUEL, ETC.)*

  - mineral resources

—> ACTION RP C14 12 - *TO CONTROL MINERAL RESOURCES EXPLOITATION (EXTRACTION AND USES) VIA REGULATIONS AND POLICIES*

**c) preserving the bio-ecological capital and resources by:**

- maintaining biological and ecological living systems sustainable
- practicing bioeconomy

—> ACTION RP C14 13 - TO LIMIT RESOURCES EXPLOITATION TO THEIR RENEWABLE SHARE
NB. *Description waived as Action requires deeper operational investigation.*

## C2 AXIS - That Mandates Stakeholders

***« Creating stakeholders assemblies mandated from the start to the symbiotic (re)conception of integrated welfare strategies compatible with existing and emerging sustainability socio-eco-lo-no constraints. »***

### - C21 - Acting with their capacities by:

**a) watching & listening to reality facts** *(data and information)*

**b) thinking on perceptions** *(building knowledge)*

**c) understanding in complexity** *(working on state-of-the-art knowledge)*

**d) learning from the experienced process**

- by capitalization of knowledge

**e) integrating beyond present vision**

—> ACTION TR C21 1 - TO DEVELOP RELEVANT CAPACITIES WITHIN STAKEHOLDERS CIRCLES BY RAISING THEIR AWARENESS LEVEL AND DEVELOPING A RELEVANT KNOWLEDGE
*See: TR C12 4 - TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES*
*See: TR C11 2 - TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVORS*
*See: TR C31 1 - TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS*

## – C22 - Acting as statutory representatives/proxies

**a) by expressing stakes**

- by asserting own position
- by declaring own constraints

**b) by expressing expectations**

- their own views & opinions against objectives
  - their intentions
  - their interests
  - their needs (material, rules, constraints…)
- about other stakeholders
  - third views & opinions
    - for negotiation
    - for coordination
    - for convergence

—> ACTION GO C22 1 - *TO INSTITUTIONALIZE THE STAKEHOLDERS INVOLVEMENT AND PRACTICE INTO DECISION BODIES*

**c) by proposing contributions**

- for common goals
- for coordination inter-stakeholders

**d) by sharing experience**

- best practices

—> ACTION IM C22 2 - *TO FORMALIZE STAKEHOLDERS' CONTRIBUTIONS AND PRACTICES FOR INTEGRATION INTO DECISION-MAKING PROCESSES*

## – C23 - Acting among themselves socially

**a) through influence via their own**

- reputation
- competency
- experience
- advising & counseling
- coaching & mentoring
- staying within limits
  - in capacity & competency
  - in the roles
  - over time span

**b) via links & harmonisation**

**c) with structures**

- at global level
- for specific functions
  - as single ones
  - interdependently
    - for supply chains
    - for distribution chains

—> ACTION IM C23 1 - *TO STRUCTURE THE STAKEHOLDERS' COMPETENCIES, EXPERIENCE AND CONTRIBUTIONS TO DECISION-MAKING PROCESSES*

**d) by rules for regulating operations for**

- planning tasks
- procuring resources
- allocating resources to tasks
- monitoring tasks
- supervising/controlling tasks
- disseminating yields/results

**e) by doing & performing (directly contributing)**

- **through collective empowerment partnerships *(CEP)***
  - coordinating
    - internally (as managing a task, as service)
    - with the outside world (from next service to beyond)
  - dynamically cooperating *(exiting zero-sum games)*
    - coopeting *(first cooperating then competing)*
    - comperating *(first competing then cooperating)*

- **acting individually**
  - as responsible agent
  - as referent body (non delegable responsibility)

**f) by delegating/transferring roles**

- **only partially**
  - by subcontracting
    - what is not proper (frequent use, nominal craft) *(classical situation)*
    - what is beyond own territory

- in geo space management *(delocalization, concentration, dispersion)*
- in competency: expertise
- in time: ex-post, parallelization (duplication, competition)

- by outsourcing
  - management
  - IT
- via the principle of subsidiarity
  - by granting full autonomy
  - by granting partial autonomy

- **in full coherence**
  - as shareholders
    - as passive investors
  - as customers
    - as beneficiary
    - as field testimony *(obliged / choicer / teller / substitutor / other)*

—> ACTION IM C23 2 - *TO STRUCTURE AND DEVELOP GUIDELINES FOR STAKEHOLDERS' OPERATIONAL MANAGEMENT TO DECISION-MAKING PROCESSES*
(CONCERNS ALL ABOVE BULLETS) - THIS ACTION AGGREGATES:
—> ACTION GO C22 1 - *TO INSTITUTIONALIZE THE STAKEHOLDERS INVOLVEMENT AND PRACTICE INTO DECISION BODIES*
—> ACTION IM C22 2 - *TO FORMALIZE STAKEHOLDERS' CONTRIBUTIONS AND PRACTICES FOR INTEGRATION INTO DECISION-MAKING PROCESSES*
—> ACTION IM C23 1 - *TO STRUCTURE THE STAKEHOLDERS' COMPETENCIES, EXPERIENCE AND CONTRIBUTIONS TO DECISION-MAKING PROCESSES*

## - C24 - Designing common welfare futures *(common win-win futures - symbiotically)*

**a) by the current generation to provide future generations best practices:**

- legacy
- means
- capacity

**b) for empowering future generations**

- in their abilities
- for meeting their own needs

—> ACTION RD C24 1 - *TO DESIGN COMMON WELFARE FUTURES*

## - C25 - Breaking out personal welfare through:

**a) appearance**

- **with ethos (incl. ethics)**
  - lifestyles *(incl. way of life)*
  - posture *(gesture, language, mental attitude, disposition,*
  - behavior

- **with pathos**
  - feelings
  - beliefs
  - persuasion

- **by means of cultural diversity**
  - points of view *(a.o. way of thinking)*
  - public opinion *(incl. reaction*

**b) reasonable evidence (straight-thinking) with:**

- **logos**

- **scientifically exact facts**

**c) core principles**

-
- **inner self**

- **ethical self** *(incl. psyche, subconscious, vital principles, spiritual)*

**d) futures realities models**
- reality forms
- alternate figures

—> ACTION RD C25 1 - *TO RESEARCH FUTURE MODELS FOR EXTENDING PERSONAL WELFARE BY BREAKING CONVENTIONAL MENTAL PARADIGMS*
AGGREGATES ALL ABOVE BULLETS

## - C26 - Creates futures commons *(commons about the future - future win)*

**a) by meeting the needs of the present generation**

- **by preserving present useful commons**

- **while ensuring sustainable futures**

**b) by preserving the present planet capital**

- **by mastering the use of the planetary yields**
  - non renewable *(« capital »)*
  - renewable *(« interests on capital »)*

- **while fostering a common futures concern through**
  - education
  - governance
  - transformative policies
  - regulations
  - best practices
    - social
    - economical
    - financial
    - environmental

—> ACTION RD C26 1 - TO RESEARCH FUTURES COMMONS AND FORMALLY INTEGRATE THEM INTO CURRENT PRACTICES
(AGGREGATES ALL ABOVE BULLETS)

## C3 AXIS - For Societies Operating in Coherence and Compliance

***« Applying integrative methodological approaches to identify and create the affordable operational objectives, the associated required players, processes & means, their indicators, agenda and ethical follow-up. »***

## - C31 - Setting conditions for sound operations

**a) At early stage requirements**

- **preparing mindsets *(collective and individual)***
  - intentions
  - willingness

- **setting prerequisites**

—> ACTION TR C31 1 - *TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS*

- **defining plans**
  - just transition plans *(i.e. fair transitions)*

- **communicating requirements**
  - one way
  - two ways dialogue

—> ACTION TR C31 2 - *TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS*

**b) For operating instructions appropriately:**

- **ensuring systemic « good status » for: *(a.o. pollution free)***
  - humans
  - the environment
    - whenever using excess nutrients
    - phyto-pharmaceuticals

- **applicable technologically**

- **applied at regulatory level:**
  - as transformative policies
  - as directives
  - as regulations

—> ACTION MA C31 3 - *TO MAKE APPLY OPERATING INSTRUCTIONS IN CONFORMANCE WITH POLICIES AND REGULATIONS*

## - C32 - Creating innovative means for action

**a) As action plans coordinating the micro-macro dimensions**

- **formalizing guidelines**

- **defining methods**
  - indicators *(cf. Lietaer & Ulanovicz)*
    - for resilient efficacy *(i.e. trading-off performance and limits, benefits and drawbacks)*
      - transcending GDP by *(integrating a.o. externalities for accounting)*
      - aggregating dimensions *(a.o. composite indicators)*
    - for stimulating up/re-skilling pathways leading to:
      - multimodality
      - adaptability
      - diversity
    - for verification
  - processes

- for harmonising execution
- for quality assurance and control
- at procurement level *(being upstream in supply chains)*
- by (multi-)localizing *(the location and diversity of production)*
- through redundancy *(a.o. duplicating sourcing)*

- **developing tools**
  - testing procedures
  - task-specific tools
  - compliance dashboard indicators

—> ACTION MA C32 1 - *TO DEVELOP CREATIVE METHODS (INDICATORS AND PROCESSES) AND TOOLS ADAPTED TO THE REQUIREMENTS OF THE NEW REGULATIONS*

### b) With affordable and sustainable (objectives-based) projects

- **POC prototypes**
- **developing referenceable practices *(a.o. procurement)***
- **leading to usable results**
- **serving as later flagship reference**
- **for later benchmarks**

### c) By means of resources

- **of technological nature**
  - by overcoming technological limits (« technological neutrality »)
  - by developing technological potential
- **of infrastructural nature**
  - existing structures *(political, social, economical)*
  - substitutive multimodal structures for linking-up: *(i.e. different dimensions that interplay)*
    - system elements
    - isolated elements *(concepts initiatives/actions/projects/people/etc.)*
  - complementary structures
    - within the distribution context *(smart transportation, freight, data domains)*
    - for other contexts
- **competences**
- **finances**

—> ACTION MA C32 2 - *TO DEFINE APPLICATION CONDITIONS FOR ENSURING FEASIBLE PROJECTS*

## - C33 - Within the limited available planetary yields

### a) Creating an assessment capacity

- **defining planetary renewable limits**
  - on the basis of the measures considered
    - as forged consensually by experts
    - when taking historical measures
  - by considering the experiential past
    - via a set of historical measures
    - by excluding non desirable effects
- **measuring them**
  - with ex-ante indicators
  - by using lifecycle analyses
- **evaluating them ex-post**
  - through verification
  - through detection

—> ACTION IM C33 1 - *TO QUANTIFY THE AVAILABLE YIELDS WITH THE CORRESPONDING INDICATORS*

### b) Innovating on respecting limits

- **in the way of living**
  - by dematerialising consumption
    - like decarbonisation *(leading to using non fossil fuel energies)*
    - others
  - by recycling resources *(esp. non renewable ones)*
  - by regenerating resources *(incl. recuperating, scavenging -*
  - by limiting resources squandering:
    - wastage/squandering *(esp. with food)*
    - wearing down/spoilage *(esp. with food)*
    - depreciation *(of the value: monetary, raw materials, etc.)*
    - drain *(leakage, spillage, storage, etc.)*
    - transportation atomisation *(single delivery, rail-road-air-water transportation)*
    - transportation types
- **in procurement**
  - with policies *(buying processes - e.g. state procurement)*
  - in the nature of the buyings *(inducing a change in consumption processes)*
- **by digitalising processes**

- moves and travel (meetings, tourism…)
- services (by bulking pieces…)

- **by reducing**
  - packaging
  - single non recycled usage *(of the raw material)*
  - in practices
  - other things

—> ACTION RD C33 2 - *TO RESEARCH THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS*

**c) Managing affordable limits by:**

- **Sticking to agreed limits**
  - by enforcing these limits
    - through the regulatory system
    - by creating standard
  - through reasoning approaches
    - by creating awareness *(via pedagogy material (courses, etc.), public confrontation (debates…), information provision, political bodies (through NGOs, other bodies))*
    - by convincing populations/citizens
    - by motivating populations/citizens

- **Altering the limits identified at upstream lifecycle stage**
  - in a living ecosystem, by quantitatively collecting beyond the renewal capacity
  - by over exploiting a non-living ecosystem *(thus destructing)*
    - within a natural ecosystem capital *(mineral resources, oceans, fresh and ground water, ground, soils)*

- **Staying within limits (to avoid degradation impact of the capital)**
  - by pushing them beyond
    - recognized neutrality limits *(climatic, biological, etc. - i.e. does not alter capital)*
    - common sense limits
    - acceptable limits from experts
    - commonly acceptable by stakeholders
    - by jurisprudence
  - by over exploiting a non-living ecosystem (thus destructing)
    - in the air
    - in the atmosphere
    - over surface lands *(by e.g. occupying lands (through urbanisation, industrialization)*
    - in underground soils

—> ACTION MA C33 3 - *TO APPLY THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS*

**d) Abrogating predatory practices by:**

- **penalizing them**
  - by taxing them
    - by emissions trading *(a.o. ETS permits)*
    - in products/services lifecycles phases which consume fossil carbon
  - by fining them

- **neutralizing them**
  - with specific policies
  - with regulatory means at:
    - national level
    - international level
  - offsetting bad behavior patterns
    - by fostering international CSR etiquette
    - with agreed national ethical conditions

—> ACTION RP C33 4 - *TO ADOPT STRICT REGULATIONS ABROGATING ECONOMICAL, FINANCIAL, AND ECOLOGICAL PREDATORY PRACTICES*

**e) Enabling practices by:**

- **offering:**
  - methods
  - tools
  - financial support by:
    - offering lower prices *(promotional means (rebates, bulk…), better services)*
    - granting tax reductions *(in revenue, in other buys)*
    - means of differentiating taxes *(differential VAT)*
    - allocating funds (green investments) *(grants, loans, subsidies - tending towards ecocompatibility)*

- **fostering them by:**
  - encouraging practices
  - advertising them
  - rewarding

—> ACTION DI/TR C33 5 - *TO DISSEMINATE THE ADOPTED PRACTICES, TRAIN THE RELEVANT PLAYERS TO MAKE THEM USED, AND PROVIDE FINANCIAL INCENTIVES*

## C4 AXIS - Geared Toward Sharable Fairness Values

***« To gather a general assembly at international level that will redefine the democratic and human rights values at the light of the present constraints and define precise governance rules with the means to evaluate their enforcement. »***

### – C41 - With generational processes by:

**a) extracting reference democratic values from what exists**

**b) addressing their philosophical irreducible desirability**
- at social level conviviality
- at political/judiciary level equity
- respecting autonomy of individuals

**c) formulating their signification**

—> ACTION RD C41 1 - *TAKE STOCK OF AND REPORT ON THE PRESENT EXPRESSION OF DEMOCRATIC AND HUMAN RIGHTS VALUES AS SHARED ACROSS THE WORLD TODAY*
AGGREGATES THE BULLETS THREE ABOVE

**d) reinterpreting them**
- in light of existing/evolving « affordable » constraints
- through renewed values
  - by restoring them

—> ACTION RP C41 2 - *TO DESIGN AND IMPLEMENT A GENERAL ASSEMBLY TO REDEFINE VISION AND VALUES AT THE LIGHT OF PRESENT CONSTRAINTS*
NB. *Description waived as Action requires deeper operational investigation.*

  - through consciousness awareness

**e) ideating their evolution/revolution**

—> ACTION DI C41 3 - *TO DEFINE PRECISE GENERATIONAL GOVERNANCE RULES AND ENFORCEMENT EVALUATION MEANS*
NB. *Description waived as Action requires deeper operational investigation.*

### – C42 - With materialized processes

**a) designing their application**

**b) constructing their application framework**
- with legislation
- with just transition plans

—> ACTION RP C42 1 - *TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES*
AGGREGATES ELEMENTS FROM THE ABOVE TWO BULLETS

**c) ordaining application**
- through implementation
- with control

### – C43 - With accompaniment measures

**a) by communicating them**
- with pedagogical methods

**b) by incentivizing them**
- by motivating

—> ACTION DI C43 1 - *TO DISSEMINATE THE NEW FORMULATION OF THE DEMOCRATIC AND HUMAN RIGHTS VALUES AND THEIR ENFORCEMENT*
AGGREGATES THE ABOVE TWO BULLETS

—> ACTION CO C11 1 - *Is the combination of above C4 Actions.*

# ANNEX 3 - ACTIONS CATEGORIES

TABLE OF ACTIONS IDENTIFIED AND DEFINED

## CO - COORDINATION ACTIONS

**C13 2 -** TO EVOLVE DEMAND TOWARDS QUALITATIVE RATHER THAN QUANTITATIVE GROWTH.
**C13 3 -** TO RAISE AWARENESS ON THE VIRTUAL DISCREPANCY BETWEEN FINANCE AND REAL ECONOMY AND POINT TO RESOLUTION AXES.
**C13 4 -** TO RESTORE MORE DIRECT LINKS BETWEEN THE ENTREPRENEUR AND THE INVESTOR.

## DI - COMMUNICATION AND DISSEMINATION ACTIONS

**C11 3 -** TO FORMALIZE THE SHIFT FROM GOODS-BASED TO WELFARE ECONOMY.
**C43 1 -** TO DISSEMINATE THE NEW FORMULATION OF THE DEMOCRATIC AND HUMAN RIGHTS VALUES AND THEIR ENFORCEMENT. *Incl. C42 1-C42 2.*

## DI/TR ACTION

**C33 5 -** TO DISSEMINATE THE ADOPTED PRACTICES, TRAIN THE RELEVANT PLAYERS TO MAKE THEM USED, AND PROVIDE FINANCIAL INCENTIVES.

## GO - GOVERNANCE ACTION

**C22 1 -** TO INSTITUTIONALIZE THE STAKEHOLDERS INVOLVEMENT AND PRACTICE INTO DECISION BODIES.

## IM - IMPLEMENTATION ACTIONS

**C12 5 -** TO DESIGN AND IMPLEMENT CIRCULAR ECONOMY MODELS.
**C22 2 -** TO FORMALIZE STAKEHOLDERS' CONTRIBUTIONS AND PRACTICES FOR INTEGRATION INTO DECISION-MAKING PROCESSES.
**C23 1 -** TO STRUCTURE THE STAKEHOLDERS' COMPETENCIES, EXPERIENCE AND CONTRIBUTIONS TO DECISION-MAKING PROCESSES.
**C23 2 -** TO STRUCTURE AND DEVELOP GUIDELINES FOR STAKEHOLDERS' OPERATIONAL MANAGEMENT IN DECISION-MAKING PROCESSES.
**C33 1 -** TO QUANTIFY THE AVAILABLE YIELDS FROM THE PLANETARY CAPITAL EXPRESSED WITH ADAPTED INDICATORS.

## IM/GO ACTION

**C13 1 -** ENSURING THAT THE ACTIVITY CONSIDERED DOES NOT AFFECT THE PLANET CAPITAL.

## MA - MANAGEMENT ACTIONS

**C12 3 -** TO IDENTIFY AND IMPLEMENT THE NECESSARY REDUNDANCY AND PRECAUTION MEANS INTO PRACTICES.
**C12 6 -** TO MANAGE CIRCULAR ECONOMY PROCESSES.
**C12 7 -** PRACTICAL METHODS, TECHNIQUES, AND MEASURES FOR BALANCING EFFICIENCY AND RESILIENCE IN CONCRETE PROJECTS.
**C31 3 -** TO MAKE APPLY OPERATING INSTRUCTIONS IN CONFORMANCE WITH POLICIES AND REGULATIONS.
**C32 1 -** TO DEVELOP CREATIVE INDICATORS, PROCESSES, AND TOOLS ADAPTED TO THE REQUIREMENTS OF THE NEW SUSTAINABLE WELFARE OBJECTIVES AND REGULATIONS.
**C32 2 -** TO DEFINE APPLICATION CONDITIONS FOR ENSURING FEASIBLE PROJECTS.
**C33 3 -** TO APPLY THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS.

## RD - RESEARCH & DEVELOPMENT ACTIONS

**C12 1 -** TO DEFINE THE LIMITS OF RENEWABLE REVENUES.
**C12 2 -** TO STUDY THE VARIOUS WAYS OF ECODESIGN OPTIMIZATION.
**C24 1 -** TO DESIGN COMMON WELFARE FUTURES.
**C25 1 -** TO RESEARCH FUTURE MODELS FOR EXTENDING PERSONAL WELFARE BY BREAKING CONVENTIONAL MENTAL PARADIGMS.
**C26 1 -** TO RESEARCH FUTURES COMMONS AND FORMALLY INTEGRATE THEM INTO CURRENT PRACTICES.
**C33 2 -** TO RESEARCH THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS.
**C41 1 -** TO TAKE STOCK OF AND REPORT ON THE PRESENT EXPRESSION OF DEMOCRATIC AND HUMAN RIGHTS VALUES AS SHARED ACROSS THE WORLD TODAY.

## RD/RP/GO ACTION

**C42 1 -** TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES.

## RP - REGULATION AND POLICY ACTIONS

**C 14 1 -** TO PURSUE THE FOLLOW-UP OF INTERNATIONAL REGULATIONS & AGREEMENTS REGARDING CLIMATE.
**C 14 2 -** TO PURSUE FOLLOW-UP REGULATIONS LIMITING OR ELIMINATING ATMOSPHERIC POLLUTANTS.
**C14 3 -** FIGHTING AND PREVENTING POLLUTION IN SURFACE AND GROUNDWATERS.
**C14 4 -** OCEANS POLLUTION: CONTROLLING CHEMICAL, HUMAN WASTE.
**C14 5 -** OCEANS POLLUTION: CONTROLLING IN PARTICULAR THE REMOVAL AND GENERATION OF PLASTICS WASTE.
**C14 6 -** CONTROLLING OVERFISHING IN OCEANS.
**C14 9 -** TO PURSUE THE REGULATION OF PHYTOSANITARY (PESTICIDES, NUTRIENTS, ETC.) PRODUCTS AND OTHER POLLUTANTS USES.
**C14 11 -** TO PURSUE THE PREVENTION OF UNDERGROUND SOIL POLLUTION (FUEL, ETC.).
**C14 12 -** TO CONTROL MINERAL RESOURCES EXPLOITATION (EXTRACTION AND USES) VIA REGULATIONS AND POLICIES.
**C33 4 -** TO ADOPT STRICT REGULATIONS ABROGATING ECONOMICAL, FINANCIAL, AND ECOLOGICAL PREDATORY PRACTICES.

## TR - TRAINING ACTIONS

**C11 2 -** TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVORS.
**C12 4 -** TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES.
**C31 1 -** TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS.
**C31 2 -** TO DEVELOP OPERATIONALLY RELEVANT INTEGRATED TRANSITION PLANS PUTTING IN PRACTICE THE REVISED STRATEGY OF SUSTAINABLE WELFARE DEVELOPMENT.

# ANNEX 4 - THE ESSENTIALS OF THE EUROPEAN GREEN DEAL

## The essentials of the "*Green Deal*" of the European Commission

Source document: **The European Green Deal -** Communication from the Commission to the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions

Brussels, 11.12.2019 COM(2019) 640 final - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640

1. **Introduction**

This Communication sets out a *European Green Deal* for the *European Union* (EU) and its citizens. It resets *the European Commission's* commitment to tackling climate and environmental-related challenges that is this generation's defining task. The atmosphere is warming and the climate is changing with each passing year. One million of the eight million species on the planet are at risk of being lost. Forests and oceans are being polluted and destroyed.

2. **What are the climate objectives of the "Green Deal" of the European Commission?**

The *European Commission* will propose the first European 'Climate Law' by March 2020. This will enshrine the 2050 climate neutrality objective in legislation. The Climate Law will also ensure that all EU policies contribute to the climate neutrality objective and that all sectors play their part.

By summer 2020, the Commission will also present an impact assessed plan to increase the EU's greenhouse gas emission reductions target for 2030 to at least 50% and towards 55% compared with 1990 levels in a responsible way

New measures on their own will not be enough to achieve the *European Green Deal's* objectives and the environmental ambition of the Green Deal will not be achieved by Europe acting alone. As long as many international partners do not share the same ambition as the EU, there is a risk of carbon leakage, either because production is transferred from the EU to other countries with lower ambition for emission reduction, and this will frustrate the efforts of the EU and its industries to meet the global climate objectives of the Paris Agreement.

In addition to launching new initiatives, the *Commission* will work with the Member States to step up the EU's efforts to ensure that current legislation and policies relevant to the Green Deal are enforced and effectively implemented.

The policy reforms will help ensure efficient pricing of carbon across the economy. This will encourage changes in consumer and business behavior and facilitate an increase in sustainable public and private investment.

Achieving a climate neutral and circular economy requires the full mobilization of industry. It takes 25 years - a generation - to transform an industrial sector and all value chains. To be ready in 2050, decisions and actions must be taken over the next five years.

3. **How can those objectives be turned into policy?**

The challenges are complex and interlinked. The policy response must be bold and comprehensive and seek to maximise benefits for health, quality of life, resilience and competitiveness. It will require intense coordination to exploit the available synergies across all policy areas.

All EU actions and policies will have to contribute to the *European Green Deal*. The EU has already started to modernize and transform the economy with the aim of climate neutrality. Between 1990 and 2018, it reduced greenhouse gas emissions by 23%, while the economy grew by 61%.

The risk of energy poverty must be addressed for households that cannot afford key energy services to ensure a basic standard of living and in 2020, the *EU Commissio*n will produce guidance to assist Member States in addressing the issue of energy poverty.

In the meantime, the Commission will also step up regulatory and non-regulatory efforts to tackle false green claims.

4. **Which complementary initiatives will play a role in this strategy?**

Together with the industrial strategy, a new circular economy action plan will help modernise the EU's economy and draw benefit from the opportunities of circular economy domestically and globally. The action will focus in particular on resource-intensive sectors such as textiles, construction, electronics and plastics. A sustainable product policy also has the potential to reduce waste significantly.

Ensuring the supply of sustainable raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and defence applications, by diversifying supply from both primary and secondary sources, is therefore one of the pre-requisites to make this transition happen.

Digital technologies are a critical enabler for attaining the sustainability goals of the *European Green Deal* in many different sectors. The Commission will explore measures to ensure that digital technologies such as artificial intelligence, 5G, cloud and edge computing and the internet of things can accelerate and maximise the impact of policies to deal with climate change and protect the environment.

Member States should engage in a 'renovation wave' of public and private buildings and the Commission will rigorously enforce the legislation related to the energy performance of buildings. In parallel, the Commission proposes to work with stakeholders on a new initiative on renovation in 2020. An essential aim would be to organise renovation efforts into larger blocks to benefit from better financing conditions and economies of scale.

The *EU Commission* will adopt a strategy for sustainable and smart mobility in 2020 that will address this challenge and tackle all emission sources. The Commission will for example support the deployment of public recharging and refuelling points where persistent gaps exist, notably for long-distance travel and in less densely populated areas, and will launch as quickly as possible a new funding call to support this.

The Commission will also consider withdrawing and presenting a new proposal to revise the *Combined Transport Directive* to turn it into an effective tool to support multimodal freight operations involving rail and waterborne transport, including short-sea shipping. In aviation, work on adopting the *Commission'*s proposal on a truly *Single European Sky* will need to restart, as this will help achieve significant reductions in aviation emissions.

The *Commission* will propose more stringent air pollutant emissions standards for combustion-engine vehicles. The Commission will also propose to revise by June 2021 the legislation on $CO_2$ emission performance standards for cars and vans, to ensure a clear pathway from 2025 onwards towards zero-emission mobility.

5. **What are the initiatives related to food and agriculture?**

The Commission will present the '*Farm to Fork'* Strategy in spring 2020 and launch a broad stakeholder debate covering all the stages of the food chain, and paving the way to formulating a more sustainable food policy.

The common agricultural and common fisheries policies will remain key tools to support these efforts while ensuring a decent living for farmers, fishermen and their families. By shifting the focus from compliance to performance, measures such as eco-schemes should reward farmers for improved environmental and climate performance, including managing and storing carbon in the soil, and improved nutrient management to improve water quality and reduce emissions.

The strategic plans will need to reflect an increased level of ambition to reduce significantly the use and risk of chemical pesticides, as well as the use of fertilisers and antibiotics.

6. **What are the issues more specifically linked to biodiversity?**

To ensure that the EU plays a key role, the Commission will present a *Biodiversity Strategy* by March 2020, to be followed up by specific action in 2021. The strategy will outline the EU's position for the *Conference of the Parties on Biodiversity*[10], with global targets to protect biodiversity, as well as commitments to address the main causes of biodiversity loss in the EU, underpinned by measurable objectives that address the main causes of biodiversity loss.

The new EU forest strategy will have as its key objectives effective afforestation, and forest preservation and restoration in Europe, to help to increase the absorption of $CO_2$, reduce the incidence and extent of forest fires, and promote the bio-economy, in full respect for ecological principles favourable to biodiversity.

The Commission will also take decisions that include ways to manage maritime space more sustainably, notably to help tap into the growing potential of offshore renewable energy. The Commission will also take a zero tolerance approach to illegal, unreported and unregulated fishing.

7. **What are the objectives of the *European Green Deal* regarding pollution and waste?**

The *EU Commission* will adopt in 2021 a *zero pollution action plan* for air, water and soil and will review EU measures to address pollution from large industrial installations.

In addition, the Commission will propose measures to address pollution from urban runoff and from new or particularly harmful sources of pollution such as micro plastics and chemicals, including pharmaceuticals.

8. **What financial resources are needed to support the *European Green Deal* objectives?**

The Commission will present a *Sustainable Europe Investment Plan* to help meet the funding needs. It will combine dedicated financing to support sustainable investments, and proposals for an improved enabling framework that is conducive to green investment. At least 30% of the *InvestEU Fund*[11] will contribute to fighting climate change. A revenue stream could involve allocating 20% of the revenue from the auctioning of *EU Emissions Trading System* to the EU budget.

In order to bring an answer to the long-term financing needs of the transition, the *Commission* will continue to explore with relevant partners, as part of the *Sustainable Europe Investment Plan,* additional sources that could be mobilised and innovative ways to do so.

The need for a socially just transition must also be reflected in policies at EU and national level. Well-designed tax reforms can boost economic growth and resilience to climate shocks and help contribute to a fairer society and to a just transition.

At national level, the *European Green Deal* will create the context for broad-based tax reforms, removing subsidies for fossil fuels, shifting the tax burden from labour to pollution, and taking into account social considerations.

In this context, there is a need to ensure rapid adoption of the Commission's proposal on value added tax (VAT) rates currently on the table of the Council, so that Member States can make a more targeted use of VAT rates to reflect increased environmental ambitions, for example to support organic fruit and vegetables.

The *European Innovation Council* will dedicate funding, equity investment and business acceleration services to high potential start-ups and SMEs for them to achieve breakthrough Green Deal innovation that can be scaled up rapidly on global markets.

The Commission invites also stakeholders to use the available platforms to simplify legislation and identify problematic cases.

9. **What are the impact of sustainable development commitments in the frame of EU trade agreements?**

The Commission has also been stepping up efforts to implement and enforce the sustainable development commitments of EU trade agreements, and these efforts will be further enhanced with the appointment of a *Chief Trade Enforcement Officer*. On climate change more specifically, the EU's most recent agreements all include a binding commitment of the Parties to ratify and effectively implement the *UNFCCC Paris Agreement on climate action*[12]. The Commission will propose to make the respect of this *Agreement* an essential element for all future comprehensive trade agreements.

The Commission will launch a *European Climate Pact* by March 2020 to focus on three ways to engage with the public on climate action. In particular, the Commission will work on building capacity to facilitate grassroots initiatives on climate change and environmental protection. Information, guidance and educational modules could help exchange good practice. The Commission will ensure that the green transition features prominently in the debate on the future of Europe.

The Commission and the Member States must also ensure that policies and legislation are enforced and deliver effectively. In this context, the Commission will consider revising the *Aarhus Regulation*[13] to improve access to administrative and judicial review at EU level for citizens and NGOs who have concerns about the legality of decisions with effects on the environment.

[10] https://www.cbd.int/cop/

[11] https://europa.eu/investeu/home_en

[12] https://unfccc.int/

[13] https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-2432060/public-consultation_en and https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006R1367

# ANNEX 5
# -
# BIBLIOGRAPHICAL REFERENCES

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# ANNEX 6
# -
# THE LIST OF PROPOSED PRIORITY ACTIONS

| ACTION CO | C13 2 - TO EVOLVE DEMAND TOWARDS QUALITATIVE RATHER THAN QUANTITATIVE GROWTH |
|---|---|
| WHY | To actuate more qualitative types of sustainable and circular growth in target fields. |
| WHAT | To desaturate markets from a too heavy material growth predominance by developing other types of consumption through consumer stimulation and market actions. |
| HOW | Taking advantage of the established knowledge in the qualitative growth domain and of appropriate pedagogical tools and incentives. |
| WITH WHOM | All stakeholders promoting these qualitative economic shifts. |
| HINTS | As for other Actions, the integration of all stakeholders involved in all product/service lifecycles phases is essential to foster this (re)volution among its actors. |

| ACTION CO | C13 3 - TO RAISE AWARENESS ON THE VIRTUAL DISCREPANCY BETWEEN FINANCE AND REAL ECONOMY AND POINT TO RESOLUTION AXES |
|---|---|
| WHY | To make plain that the progressive decoupling of financial world speculative interests is hampering the economy and companies sustainability. |
| WHAT | To promote situations where the financial sphere get to more direct and local support of economic activities and their actors, like companies. |
| HOW | Taking advantage of the relevant established knowledge and of appropriate existing tools and incentives to promote key regulatory changes. |
| WITH WHOM | All stakeholders promoting interlink changes between financial markets and economical welfare. |
| HINTS | The integration of all the stakeholders involved in the relations between a purely speculative financial sphere and the economic sphere is essential to engage into this (re)volution. |

| ACTION CO | C13 4 - TO RESTORE MORE DIRECT LINKS BETWEEN THE ENTREPRENEUR AND THE INVESTOR |
|---|---|
| WHY | To prevent the more and more common speculative financial predation of economic assets produced by extracting the value returns from specific assets.<br>To promote and make adopt regulatory tools at international level that aim at regulating/suppressing the purely speculative and predatory practices such as fiscal paradises, tax heavens, and other fiscal optimisations. |
| WHAT | To promote situations where the Financial sphere can remain in more direct and local support of economic activities and of their actors like companies. |
| HOW | Taking advantage of the established knowledge in the predation field and of the appropriate existing tools and incentives in order to promote key regulatory changes. |
| WITH WHOM | All stakeholders promoting these changes between financial markets and economical welfare: member states, political forces, international bodies, economic actors (e.g. federations), NGOs, etc. |
| HINTS | In the face of the multiplication of financial crises and drifts in fiscal and other practices, this evolution constitutes an essential prerequisite to make a fielded Green Deal factually emerge. |

| ACTION DI | C11 3 - TO FORMALISE THE SHIFT FROM GOODS-BASED TO WELFARE ECONOMY |
|---|---|
| WHY | To provide operational strategies to the societies stakeholders to allow them to integrate the transition steps of the Green Deal in all its dimensions: cultural, social, economical, ecological, political, etc. |
| WHAT | To develop pedagogical documents with various levels of details, describing the key strategic requirements adapted to the different audiences: scholars, higher education, civil society, all stakeholders, etc. |
| HOW | Take as sources those documents developed and adopted by the largest and recognised organisations of all types that are active in transitioning from goods to welfare economy. |
| WITH WHOM | Experts and specialists in the field who can build the strategic synthesis and those having pedagogical experience to create the documents adapted to specific audiences. |
| HINTS | N/A |

| ACTION DI | C43 1 - TO DISSEMINATE THE NEW FORMULATION OF THE DEMOCRATIC AND HUMAN RIGHTS VALUES AND THEIR ENFORCEMENT<br>(Includes Actions C42 1 and C42 2) |
|---|---|
| WHY | The strict application of non ambiguous governance rules - and subsequent enforcement, evaluation, control means, and tools adopted - need to be ensured in the defined agenda and timeframe. |
| WHAT | To disseminate the reformulated democratic human rights and values which are necessary to comply with the objective of building a humanity welfare that respects the planetary capital and the sustainable exploitations of its limited resources. |
| HOW | By ensuring:<br>- Their dissemination through the various member states/countries and the (inter-)national organizations involved;<br>- Accompaniment measures, incl. pedagogical methods, communicating tools, and means;<br>- Incentivising and motivating initiatives in the social and economic spheres. |
| WITH WHOM | Include all existing expert competencies within the organisations and institutions able to set up such efficient dissemination of these revised values. These competencies are necessary when facing critical phases and tipping points in their existence. |
| HINTS | Take advantage of the numerous existing initiatives, proposals, and moves towards such direction to catalyse their symbiotic harmonisation around a minimal set of essential values shared by all the cultures and communities of the present humanity. |

| ACTION DI/TR | C33 5 - TO DISSEMINATE THE ADOPTED PRACTICES, TRAIN THE RELEVANT PLAYERS TO MAKE THEM USED, AND PROVIDE FINANCIAL INCENTIVES |
|---|---|
| WHY | To convince and contribute to the operational execution of global transitions based on means and practices alternatives developed or in development (Cf. a.o. RD C33 2). |
| WHAT | To adequately disseminate the adopted rules and practices among all stakeholders in order to allow their application in efficient and harmonised ways. |
| HOW | By enabling practices through providing incentives and financial support which:<br>- Offer lower prices (promotional means (rebates, bulk, etc.) and better services;<br>- Grant tax reductions (in revenue, in alternative buys);<br>- Provide differentiating tax systems (e.g. differential VAT) for products & services demonstrating less externalities;<br>- Allocate funds, like green investments, grants, loans, subsidies, tending towards ecocompatibility.<br>By fostering practices through:<br>- Offering guidelines to apply the methods, tools, and practices (a.o. circularity) allowing the objectives to be reached in the harmonized way necessary for their efficiency;<br>- Encouraging and advertising them, as well as rewarding them. |
| WITH WHOM | Experts in training and communication able to create the appropriate links within and among the various stakeholders involved in such practices |
| HINTS | N/A |
| ACTION GO | C22 1 - TO INSTITUTIONALISE THE STAKEHOLDERS INVOLVEMENT AND PRACTICE INTO DECISION BODIES |
| WHY | It is necessary to involve the civil society and representation schemes in decision processes with respect to their involvement in perception, understanding, and opinions about societies stakes and challenges. |
| WHAT | To integrate direct citizens' contributions to the elaboration of policies and regulations, in particular in social, ecological, and subsequent economical and political matters. |
| HOW | By formalizing the structure and organization of the bodies involving citizens' contributions to the elaboration of policies and regulations, and the formal integration of their decisions into regulatory and legislative processes. |
| WITH WHOM | Depending on their type of activities and responsibilities, support the most appropriated organisations and opinion leaders to promote, among established political groups, the willingness, actions plans, and means to operationally reach the formal adaptation of some representative bodies into decision, legislative, and regulatory processes.<br>Also ensure the citizens' mobilisation at large in order to create appropriate supports and commitments in such evolution. |
| HINTS | Take advantage of the various civil initiatives that have already created such institutionalisation tendency by analysing what made their success, limits, or failures. |
| ACTION IM | C12 5 - TO DESIGN AND IMPLEMENT CIRCULAR ECONOMY MODELS |
| WHY | To optimize the exploitation of only the renewable revenues of the planet capital. |
| WHAT | To apply the circular service-based models in an upstream functional way. |
| HOW | By adapting already existing field experience to the target domain for all lifecycle phases, i.e. on:<br>- Raw and secondary materials, including fossil carbon);<br>- Components;<br>- Products & objects;<br>- Their use, repair, and recycling phases;<br>and suppressing any obsolescence bias |
| WITH WHOM | Implicates all the stakeholders covering the lifecycle, directly or indirectly (by obtaining information and support). |
| HINTS | To reach maximal efficiency, this Action should be integrated more globally in an economic system. |
| ACTION IM | C22 2 - TO FORMALISE STAKEHOLDERS' CONTRIBUTIONS AND PRACTICES FOR INTEGRATION INTO DECISION-MAKING PROCESSES |
| WHY | The integration of a direct civil society representation in decision processes regarding societies stakes and challenges requires the set up of formal and adapted procedures. |
| WHAT | To define general procedures to organise the direct citizens' representative bodies to the elaboration of policies and regulations in an efficient and reliable way. |
| HOW | Putting in place formal instances that will make proposals aiming at the formal and operational integration of these direct representative structures and organisations into those existing in the classical democratic representative bodies. |
| WITH WHOM | All representative organisations (political, social, economical, ethical, ecological, non governmental, etc.) should be involved in this fundamental evolution of decision, legislative, and regulatory processes. |
| HINTS | Take advantage of the various civil initiatives that have already created such tendency by analyzing what made their success, limits, or failures. |

| ACTION IM | C23 1 - TO STRUCTURE THE STAKEHOLDERS' COMPETENCIES, EXPERIENCE AND CONTRIBUTIONS TO DECISION-MAKING PROCESSES |
|---|---|
| WHY | The integration of a direct civil society representation in decision processes regarding societies stakes and challenges requires the set up of formal, structured, and adapted procedures. |
| WHAT | To define operational procedures allowing the various civil society representatives facing evolving societal objectives to directly express their:<br>- Own stakes and constraints;<br>- Needs and expectations (material, rules, constraints, etc.);<br>- Interests and intentions;<br>- Views and opinions;<br>in a context of negotiations, coordination, and convergence. |
| HOW | Via links and harmonisation within appropriate structures:<br>- At global level;<br>- For specific functions;<br>- As single ones;<br>- Interdependently;<br>- At individual stakeholders' groups level for their specific stakes objectives and challenges. |
| WITH WHOM | All representative organisations (ethical, political, social, ecological, economical, non governmental, etc.) have to be involved in this fundamental evolution of decision, legislative, and regulatory processes. |
| HINTS | Take advantage of the various civil initiatives that have already created such tendency by analyzing what made their success, limits, or failures. |
| ACTION IM | C23 2 - TO STRUCTURE AND DEVELOP GUIDELINES FOR STAKEHOLDERS' OPERATIONAL MANAGEMENT IN DECISION-MAKING PROCESSES |
| WHY | The integration of a direct civil society representation in decision processes regarding societies stakes and challenges requires the set up of formal and adapted procedures. |
| WHAT | To define operational procedures allowing the various civil society representatives facing evolving societal objectives to directly express their:<br>- Own stakes and constraints;<br>- Needs and expectations (material, rules, constraints, etc.);<br>- Interests and intentions;<br>- Views and opinions;<br>in a context of negotiations, coordination, and convergence. |
| HOW | This Action aggregates Actions GO C22 1, IM C22 2, and IM C23 1 by:<br>- Setting rules for regulating operations for managing tasks: planning, resourcing, monitoring, supervising/controlling, and disseminating yields/results;<br>- Performing through dynamic and collective empowerment partnerships (CEP);<br>- Coordinating internally and with external bodies in symbiotic combinations of competition and cooperation: coopeting and comperating;<br>- Acting individually as a responsible agent or as a referent body with no delegable responsibility;<br>- Delegating/transferring roles via the subsidiarity principle when necessary, either partially *(subcontracting, outsourcing, etc.)* or in full coherence (ex: shareholders, customers, beneficiaries);<br>- As field testimony *(obliged/choicer/teller/substitutor/other).* |
| WITH WHOM | All stakeholders having experience that can contribute to the setting of operational guidelines for managing these fundamental evolutions of decision processes. |
| HINTS | Take advantage of the various civil initiatives that have already created such tendency by analysing what made their success, limits, or failures. |
| ACTION IM | C33 1 - TO QUANTIFY THE AVAILABLE YIELDS FROM THE PLANETARY CAPITAL EXPRESSED WITH ADAPTED INDICATORS |
| WHY | Welfare development within the limited planetary resources requires the objective quantification and comparison of the available yields throughout their life cycle exploitation. |
| WHAT | To create further assessment tools defining and quantifying the planetary renewable resources available and the level of 'externatities' associated to their use. |
| HOW | Based on the tools and data forged and endorsed consensually by experts:<br>- Quantifying the resources and externalities associated to their whole lifecycle with ex-ante indicators and associated parameters, taking also into account their historical evolution;<br>- Adopting means and units allowing to integrate the various parameters into a relatively unified system (e.g. energy or monetary value), allowing their comparisons and making strategic choices;<br>- Evaluating them ex-post through detection, validation, and verification procedures. |
| WITH WHOM | Involve experts in the domains covering quantitative methods of natural planetary resources assessment in their ecological, social, and economical dimensions. They will develop, validate, and adopt realistic and recognized tools, processes, and indicators, allowing quantitative assessments of planetary yields, including their 'externalities'. |
| HINTS | Take advantage of already developed tools, such as lifecycle analysis methods, for the further development of the quantification tools by analysing what are their potential, limits, or inadequateness. |

| ACTION IM/GO | C13 1 - ENSURING THAT THE ACTIVITY CONSIDERED DOES NOT AFFECT THE PLANET CAPITAL |
|---|---|
| WHY | Actions should be set for an economy where every activity contributes to preserve the planet capital (in energy, resources, and negative impacts). |
| WHAT | To consider the changes necessary in the types of growth in present models at all levels of its lifecycle:<br>- Raw materials including energy sources;<br>- Material goods production;<br>- Services provision. |
| HOW | Taking advantage of the already existing methods and adapting these to the specific domains involved. |
| WITH WHOM | Engage persons trained to circular economy processes *(a.o. consultants, internal resources, other stakeholders involved in the specific chain).* |
| HINTS | Here again, the integration of all the stakeholders involved in the product/service lifecycle chain is essential. |
| ACTION MA | C12 3 - TO IDENTIFY AND IMPLEMENT THE NECESSARY REDUNDANCY AND PRECAUTION MEANS INTO PRACTICES |
| WHY | A balance between the efficiency in resources uses and the resilience of the systems using them is essential. |
| WHAT | Ensuring diversity of applications by having a same function (sanitary, food, transport, etc.). |
| HOW | By covering these functions by multiple products, services, producers, and locations. |
| WITH WHOM | Economy actors appropriately regulated in global rules of markets organization. |
| HINTS | Resilience imply a long-term vision and redundancy that can be considered as less efficient in a short-term perspective. |
| ACTION MA | C12 6 - TO MANAGE CIRCULAR ECONOMY PROCESSES |
| WHY | To make circular economy processes happen in target fields. |
| WHAT | To implement the corresponding decisions and processes in the target field. |
| HOW | Based on the design and adaptation of circularity principles and processes made in a pre-implementation phase (cf. Actions TR CL2 4 and IM CL2 5). |
| WITH WHOM | All persons involved in the target fields. |
| HINTS | N/A |
| ACTION MA | C12 7 - PRACTICAL METHODS, TECHNIQUES, AND MEASURES FOR BALANCING EFFICIENCY AND RESILIENCE IN CONCRETE PROJECTS |
| WHY | For reaching sustainability in non-diminishing-capital assets exploitation (all sorts of capital assets). |
| WHAT | To integrate the necessary balance between the efficiency of the product/service and the resilience of the supply chain. |
| HOW | To establish a minimal diversity and redundancy of sources, units, and production localizations, and the existence of alternatives and safety measures *(i.e. establishing the reliability of protection means).* Based on the design and adaptation of circularity principles and processes made in the pre-implementation phase *(cf. Actions TR CL2 4, IM CL2 5, MA CL2 6).* |
| WITH WHOM | Experts in balancing Efficiency and Resilience in practice. All persons involved in the target field should be involved. |
| HINTS | This approach integrates a long-term vision necessary to face various potential crisis situations. |
| ACTION MA | C31 3 - TO MAKE APPLY OPERATING INSTRUCTIONS IN CONFORMANCE WITH POLICIES AND REGULATIONS |
| WHY | To ensure that the integrated plans making possible the transitions are operationally applied within the objectives and timeframes set. |
| WHAT | To define appropriately operating instructions that are applicable at:<br>- Technical and functional level;<br>- Regulatory level as transformative policies and regulations. |
| HOW | Ensuring the systemic conformity of objectives for:<br>- Humans (pollution free, non renewable resources uses);<br>- Ecological systems *(a.o. neutral impact on climate and water systems, biodiversity, uses of nutrients, phyto-pharmaceuticals).* |
| WITH WHOM | Associate experts in the domains covering ecological, social, economical, and also ethical dimensions to set up these practical guidelines and instructions compatible with the global operational objectives of the action plans and their constraints. |
| HINTS | Take advantage of the various other existing methods, tools, and practices in place worldwide by analyzing what makes their success, limits, or failures. |

| ACTION MA | C32 1 - TO DEVELOP CREATIVE INDICATORS, PROCESSES, AND TOOLS ADAPTED TO THE REQUIREMENTS OF THE NEW SUSTAINABLE WELFARE OBJECTIVES AND REGULATIONS |
|---|---|
| WHY | Action is based on the need to precisely define new indicators, methods, means, and practices that are better adapted to the application of the new regulations and their welfare practices objectives. |
| WHAT | To develop efficiency and resilience indicators forming a composite dashboard, aggregating the various dimensions, and integrating a.o. externalities. The dashboard functionality enables trading-off performance and limits, benefits, and drawbacks. |
| HOW | By developing:<br>- Up/Re-skilling pathways as progress indicators *(e.g. tracing diversity, multimodality, adaptability and verification);*<br>- Harmonized processes for the execution of action plans and ensuring their resilience by including:<br>  - Quality assurance and compliance control procedures;<br>  - The diversity (multiplicity) and control of the upstream procurement chains and redundancy in the locations of production sites;<br>  - The anticipation of crisis situations by integrating simulation and testing procedures in a precautionary and proportionality perspective. |
| WITH WHOM | Associate experts in the domains covering ecological, social, and economical dimensions to adopt realistic and affordable methods, processes, and indicators compatible with the global welfare objective and constraints. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |
| ACTION MA | C32 2 - TO DEFINE APPLICATION CONDITIONS FOR ENSURING FEASIBLE PROJECTS |
| WHY | Objectives-based projects need to be affordable, both technically and financially, and sustainable in their application. |
| WHAT | Build affordable and sustainable (objectives-based) projects adapting Proof-of-Concept prototypes and develop referenceable practices *(a.o. for procurement),* leading to usable results and serving as later flagship reference for later benchmarks. |
| HOW | Adopting means from existing or innovative resources by developing potential sustainable technologies overcoming the limits and weaknesses of the present ones to reach « technological neutrality ».<br>Adapting existing infrastructures (technical but also social, economical, political) and better integrating substitutive multimodal structures for linking-up:<br>- Isolated elements *(concepts initiatives/actions/projects/people/etc.)* into global and interactive (circular) systems;<br>- Complementary structures having to contribute to the global transitions towards sustainable welfare such as the distribution and freight dimension: smart transportation of people, resources, products services, and data;<br>- Contexts of different nature: financial, demographic, geographic, and ecological. |
| WITH WHOM | Associate experts in domains covering ecological, social, and economic dimensions to adopt realistic and recognised tools, processes, and indicators. The latter should be compatible with the quantification of values and impacts *(e.g. transportation externalities)* associated with the use of the renewable planet resources. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analyzing what made their success, limits, or failures. |
| ACTION MA | C33 3 - TO APPLY THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS |
| WHY | Managing affordable limits requires to stick to the agreed affordable sustainability limits identified in the over-exploiting (thus destructing) the planetary capital. |
| WHAT | To motivate and convince all stakeholders, from populations/citizens and their representatives to the socio-economic, political, and decision levels through reasoning approaches.<br>This to create awareness *(via pedagogy material like courses, etc.),* public confrontation *(debates, etc.),* etc.), information provision, political bodies *(through NGOs, other bodies).* |
| HOW | - By creating international standards policies, regulations and jurisprudence enforcing the acceptable limits agreed by experts and authorities and commonly affordable by stakeholders and consumers;<br>- By applying on this basis the efficient transitions towards the developed alternative processes *(technological, organizational, economical, social, etc.).* |
| WITH WHOM | Associate in trans- and inter- disciplinary projects experts and authorities in the various domains which are able to convince and contribute to the operational execution of these global transitions based on the alternatives in means and practices developed or in development *(Cf. a.o. RD C33 - 2).* |
| HINTS | N/A |
| ACTION RD | C12 1 - TO DEFINE THE LIMITS OF RENEWABLE REVENUES |
| WHY | To rethink an economy by optimizing the circular exploitation of only the renewable revenues of the planet capital in a creative way. |
| WHAT | To harmonise rules for preventing planet capital degradation *(environmental, etc.)* by taking into account lifecycles towards their:<br>- Smart integration in terms of resources;<br>- Harmonisation rules;<br>- System-level solutions. |
| HOW | Through full integration of these rules and their smart integration by means of system-level solutions. |
| WITH WHOM | All types of experts in natural resources evaluations and regulatory bodies able to translate the identified limits into policies and regulations |
| HINTS | Some methods, such a LCIs, already exist but further tools are necessary, in particular to objectivate quantitatively the capital resources and the limits of its resources. |

| ACTION RD | C24 1 - TO DESIGN COMMON WELFARE FUTURES |
|---|---|
| WHY | The integration of a direct civil society representation in decision processes regarding societies stakes and challenges requires the set up of formal and adapted common welfare. |
| WHAT | To identify and formalize symbiotically common sustainable win-win futures:<br>- By the current generation to provide best practices for future generations: legacy, means and capacity;<br>- For empowering future generations in their abilities to meet their own needs. |
| HOW | This Action implies:<br>- Rethinking the goals of economy beyond the simple production of material “goods” (see C11);<br>- Rethinking an economy optimizing the circular exploitation of only the renewable revenues of the planet capital in creative ways (see C12);<br>- Being economy-oriented by considering the adaptations necessary in the types of growth in existing dominant models (see C13);<br>- Complying with the sustainable economy concept (see C14). |
| WITH WHOM | All representative organizations *(academic, ethical, ecological, social, economical, political, societal, etc.)* should be involved in this fundamental evolution of common welfare processes. |
| HINTS | Take advantage of the various civil initiatives that have already created such tendency by analysing what made their success, limits, or failures. |
| ACTION RD | C12 1 - TO DEFINE THE LIMITS OF RENEWABLE REVENUES |
| WHY | To rethink an economy by optimizing the circular exploitation of only the renewable revenues of the planet capital in a creative way. |
| WHAT | To harmonise rules for preventing planet capital degradation *(environmental, etc.)* by taking into account lifecycles towards their:<br>- Smart integration in terms of resources;<br>- Harmonisation rules;<br>- System-level solutions. |
| HOW | Through full integration of these rules and their smart integration by means of system-level solutions. |
| WITH WHOM | All types of experts in natural resources evaluations and regulatory bodies able to translate the identified limits into policies and regulations |
| HINTS | Some methods, such a LCIs, already exist but further tools are necessary, in particular to objectivate quantitatively the capital resources and the limits of its resources. |
| ACTION RD | C24 1 - TO DESIGN COMMON WELFARE FUTURES |
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| WITH WHOM | All representative organizations *(academic, ethical, ecological, social, economical, political, societal, etc.)* should be involved in this fundamental evolution of common welfare processes. |
| HINTS | Take advantage of the various civil initiatives that have already created such tendency by analysing what made their success, limits, or failures. |
| ACTION RD | C25 1 - TO RESEARCH FUTURE MODELS FOR EXTENDING PERSONAL WELFARE BY BREAKING CONVENTIONAL MENTAL PARADIGMS |
| WHY | The integration of a direct civil society representation in decision processes regarding societies stakes and challenges requires the set up of formal and adapted procedures. |
| WHAT | To necessarily break out traditional personal welfare in relation with:<br>- Ethos (incl. ethics): lifestyles, postures (language, mental attitude, disposition) and behaviour;<br>- Pathos: feelings, beliefs, persuasion by means of philosophico-cultural diversity in the ways of thinking and of opinions. |
| HOW | Through integrating (straight-thinking) emerging reasonable evidence in relation with:<br>- Logos (reasoning evidence);<br>- Scientifically established facts and visions;<br>- Core ethical principles relative to individuals in a society itself integrated in a planetary system;<br>- Futures and alternatives, possible, affordable, and sustainable reality models. |
| WITH WHOM | All representative organizations *(academic, ethical, ecological, social, economical, political, societal, etc.)* have to be involved in this fundamental evolution of the way of thinking towards making a sustainable and affordable future for humanity possible within the planetary limits. |
| HINTS | There often remains an issue for many individuals and groups when breaking up mental paradigms despite the evidence of their limits, etc. |

| ACTION RD | C26 1 - TO RESEARCH FUTURES COMMONS AND FORMALLY INTEGRATE THEM INTO CURRENT PRACTICES |
|---|---|
| WHY | Present unsustainable practices trespass the limits of planetary resources and destroy its ecological "green" capital, hence require a new Deal. |
| WHAT | To seek the welfare means and tools through adoption of appropriate processes and practices leading to such a Deal *(a.o. for the optimization of the circularity of resources uses)* (see CP3). These should be bounded by a balanced use of the yields originating from planetary capital *(i.a. repairing/restoration, homeostatic preservation, and innovative improvement)* (see CP4). |
| HOW | Formulating and enforcing the application of fairness values *(a.o. philosophical, justice, governance, democracy, social, political, autonomy, equity, conviviality, and motivations/constraints)* (see CP 5).<br>Ensuring symbiotic trans-generational welfare for societies and planet (see CP 6). |
| WITH WHOM | All representative organizations *(academic, ethical, ecological, social, economical, political, societal, etc.)* should be involved in this fundamental thinking way evolution for making a sustainable and affordable future for humanity possible within planetary capital limits. |
| HINTS | Breaking up mental paradigms is an issue for many individuals and groups despite the evidence of the limits of the former. |
| ACTION RD | C33 2 - TO RESEARCH THE WAYS TO OPTIMIZE THE USE OF AVAILABLE YIELDS WITHIN THEIR LIMITS |
| WHY | Ensuring welfare development within the limited available planetary yields requires their objective quantification and comparison throughout their lifecycle exploitation. |
| WHAT | To respond to the essential and less essential requirements of human welfare: from health, food, and housing (health, food, shelter) to all societal and cultural values. Respecting the sustainable limits in the exploitation of the available renewable resources of the planet requires creative conceptual approaches leading to deep innovation. |
| HOW | By shifting in ways of living, from an economy based on an endless growing of production, sales, and consumption of material goods and fossil energy, to an economy based on the sustainable offer of services via:<br>- The complete transition to non-fossil sources of energy;<br>- The optimization of raw materials extraction, material production, packaging and uses conditions, and their transportation *(by rail/road/air/water),* in particular by avoiding a.o. the distribution atomization (single delivery);<br>- The dematerialization of the material goods consumption produced via a more circular and regenerative economy of resources *(esp. non renewable ones)* all along their lifecycle and not only at end-of-life recycling;<br>- The maximization of the use and the sharing of services provided by these material goods, avoiding in particular single or rare uses;<br>- The limiting the resources wastage and squandering, in particular food resources and energy uses;<br>- The avoidance of wearing down/spoilage and *(a.o. food)* and depreciation of material values *(monetary, raw materials, etc.);*<br>- The procurement schemes of these material goods with policies *(buying processes - e.g. state procurement);*<br>- The nature of the buyings (inducing a change in consumption processes);<br>- The digitalization of those processes and services that improve life cycles;<br>- Guidelines on optimal uses and services;<br>- Moves and travel *(meetings, home-based work, tourism, etc.);*<br>- Avoiding obsolescence and improving repair by better access to space parts. |
| WITH WHOM | Associate, in trans- and inter- disciplinary approaches, researchers and experts in the various technical domains. They should be able to develop the means for global transitions based on the optimization of the services rather than on the quantities of material goods needed for a global humanity welfare. |
| HINTS | Success keys for these urgent transitions entail:<br>- A support from political, structural, and financial spheres for shifting thinking paradigms;<br>- Real innovators and innovation projects taking advantage of past and present experiences and what made their success, limits, or failures. |
| ACTION RD | C41 1 - TO TAKE STOCK OF AND REPORT ON THE PRESENT EXPRESSION OF DEMOCRATIC AND HUMAN RIGHTS VALUES AS SHARED ACROSS THE WORLD TODAY |
| WHY | There exists a necessity to gear toward sharable fairness values with respect to generational processes. |
| WHAT | To apply the ways to optimize the use of available planetary resources within their limits (Cf. IM C33 3) by abrogating predatory practices (Cf. RP C33 4) and through dissemination of adopted new practices, thanks to the appropriate operational ways and means (Cf. DI/TR C33 5). |
| HOW | By extracting reference democratic values from existing ones and addressing their philosophical irreducible desirability relevant to the eco-lo-nomic transitions process.<br>This is performed by formulating their signification at:<br>- Social level by having conviviality and equity combine individual autonomy and communities welfare;<br>- Political/regulatory/judiciary level by fostering equity;<br>- Economic level by having both business fairness and financial practices aligned with the adopted regulatory rules. |
| WITH WHOM | Include training and communication experts able to create the appropriate links within and among the various stakeholders involved in such practices. |
| HINTS | N/A |

| ACTION RD/RP/GO | C42 1 - TO REDEFINE DEMOCRATIC AND HUMAN RIGHT VALUES AT THE LIGHT OF THE PRESENT CONSTRAINTS AND REALITIES |
|---|---|
| WHY | It is necessary to gear toward sharable fairness values with generational processes. |
| WHAT | To reinterpret reference democratic values through consciousness awareness. |
| HOW | By:<br>- Upgrading these values in light of existing/evolving « affordable » constraints and ideating their evolution/revolution;<br>- Designing and implementing a specific general assembly *(e.g. at UN level)* to redefine a vision and a future for a planet capital compatible with the sustainable humanity welfare, at multicultural and worldwide level (notably with respect to a.o. RP C41 2);<br>- Defining specific governance rules and enforcement evaluation, control means, and tools to ensure their strict application in a defined agenda and timeframe *(notably with respect to a.o. GO C41 3 ).* |
| WITH WHOM | Include all existing organizations and institutions that are legitimate and competent for setting up such fundamental redefinition of the essential values of our societies when facing critical phases and tipping points during their existence. |
| HINTS | Take advantage of the existing numerous initiatives, proposals, and shifts towards such democratic and human rights direction to catalyze their symbiotic harmonisation around an essential set of values shared by all cultures and communities within present humanity. |
| ACTION RP | C14 1 - TO PURSUE THE FOLLOW-UP OF INTERNATIONAL REGULATIONS & AGREEMENTS REGARDING CLIMATE |
| WHY | The international and subsequent national regulations and policies regarding climate change and carbon and other GHG emissions neutrality, should be fully applied with ever more urgency. |
| WHAT | To ensure the follow-up of these decisions in their application at all levels: regulatory, administrative, and operational at all levels of the human activities involving GHG emissions. |
| HOW | Participate actively to the various bodies acting or influencing applications of the neutrality objectives and agenda set up initially by the Kyoto Protocol, and updated by the Paris Agreement and subsequent (inter-)national regulations and policies for eliminating, in particular, fossil carbon uses and emissions. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the chains of fossil energy and other GHG uses. |
| HINTS | Interesting to note that the use of gases responsible of the stratospheric ozone layer destruction (CFCs and others) which were banned by the Montreal Protocol represented also about 15% of the anthropogenic greenhouse gases emissions. Their elimination today represents the largest contribution to reducing GHG emissions. |
| ACTION RP | C14 2 - TO PURSUE FOLLOW-UP REGULATIONS LIMITING OR ELIMINATING ATMOSPHERIC POLLUTANTS |
| WHY | Is based on the necessity to ensure the preservation and restauration of the quality of atmosphere, from the troposphere to the stratosphere. |
| WHAT | To minimise or ban all atmospheric pollutants emissions (besides GHG gases) - including, in particular, carbon monoxide, NOx, sulfur oxides, those destructing the stratospheric ozone layer or generating tropospheric ozone, particles and all substances affecting air quality. |
| HOW | Make sure that the regulations and policies already adopted in these fields are put into practice, their objectives are reached and that required complementary regulations are evaluated and adopted with clear limits, objectives an indicators. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level. |
| HINTS | Take advantage of the various existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |
| ACTION RP | C14 3 - FIGHTING AND PREVENTING POLLUTION IN SURFACE AND GROUNDWATERS |
| WHY | Based on the necessity to ensure the preservation and restoration of the quality of water resources essential to ecosystems and human activities. |
| WHAT | To define and set limits to the emissions of pollutants reaching surface and ground waters. To be applied through their translation into international and subsequent national regulations and policies regarding their application and follow-up. |
| HOW | Make sure that the regulations and policies already adopted in these fields are translated into practices, their objectives reached and that the required complementary regulations are evaluated and adopted with clear limits, objectives an indicators. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level. |
| COMMENTS | Take advantage of the various existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |

| ACTION RP | C14 4 - OCEAN POLLUTION: CONTROLLING CHEMICAL, HUMAN WASTE |
|---|---|
| WHY | Based on the necessity to ensure the preservation and restoration of the quality of ocean water resources essential to ecosystems and human activities. |
| WHAT | To define and set limits to the emissions of pollutants reaching ocean waters, directly or via rivers, to be applied through their translation into international and subsequent national regulations and policies regarding their application and follow-up. |
| HOW | Make sure that the regulations and policies already adopted in these fields are translated into practices, their objectives reached and that complementary regulations required are evaluated and adopted with clear limits, objectives, and indicators. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level. |
| HINTS | Take advantage of the various existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |
| ACTION RP | C14 5 - OCEANS POLLUTION: CONTROLLING IN PARTICULAR THE REMOVAL AND GENERATION OF PLASTICS WASTE |
| WHY | The pollution created by plastic waste reaching oceans constitutes a distinctive problem which requires specific actions to preserve their integrity essential to ecosystems and human activities. |
| WHAT | To define and set limits to the emissions of plastic pollutants reaching ocean waters whatever their nature and physical state (from objects to nanoparticles), directly or via rivers, to be applied through their translation into international and subsequent national regulations and policies regarding their application and follow-up. |
| HOW | Improve and adopt more stringent regulations and policies in these fields with clear reachable limits, objectives and indicators. Ensure their translation into practices worldwide with means to control that their objectives are reached within set timeframe. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level.<br>Also ensure the mobilization of consumers, which are a major cause of plastic waste emission due to inappropriate behavior. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |
| ACTION RP | C14 6 - CONTROLLING OVERFISHING IN OCEANS |
| WHY | Overfishing and overexploitation of marine resources constitute a major and largely irreversible damage. This fact requires further specific actions to preserve the oceans integrity essential to ecosystems, in particular in terms of biodiversity and food resources for many human populations. |
| WHAT | To define and set limits to fishing amounts allowed worldwide, including in particular international waters, whatever their type. |
| HOW | Improve and adopt more stringent regulations and policies in these fields with clear reachable limits, objectives and indicators. Ensure their translation into practices worldwide with means to control that their objectives are reached within set timeframe. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level.<br>Also ensure to mobilize the consumers of these resources in order to create appropriate shifts in exploiting these resources. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analysing what made their success, limits, or failures. |
| ACTION RP | C14 9 - TO PURSUE THE REGULATION OF PHYTOSANITARY (PESTICIDES, NUTRIENTS, ETC.) PRODUCTS AND OTHER POLLUTANTS USES |
| WHY | Overuse of phytosanitary means constitute a source of major and sometimes irreversible damage - in particular in terms of biodiversity, food resources, and human health - which requires further specific actions. |
| WHAT | Phytosanitary products allowed to be used (including nutrients) worldwide should be controlled in order to avoid irreversible damage to the ecosystems in which those are emitted: from soil quality to all those trophic chains exposed. These limits should be adapted to particular situations (soils, climate, waters, etc.). |
| HOW | Define and set more stringent limits, when necessary, to the types and amounts of phytosanitary products used, through regulations and policies in these fields with clear reachable limits, objectives an indicators. Ensure their translation into practices worldwide, with means to control that their objectives are reached within the timeframe set. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level.<br>Also ensure to mobilize the consumers of these resources in order to create appropriate shifts in exploiting these resources. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analyzing what made their success, limits, or failures. |

| ACTION RP | C14 11 - TO PURSUE THE PREVENTION OF UNDERGROUND SOIL POLLUTION (FUEL, ETC.) |
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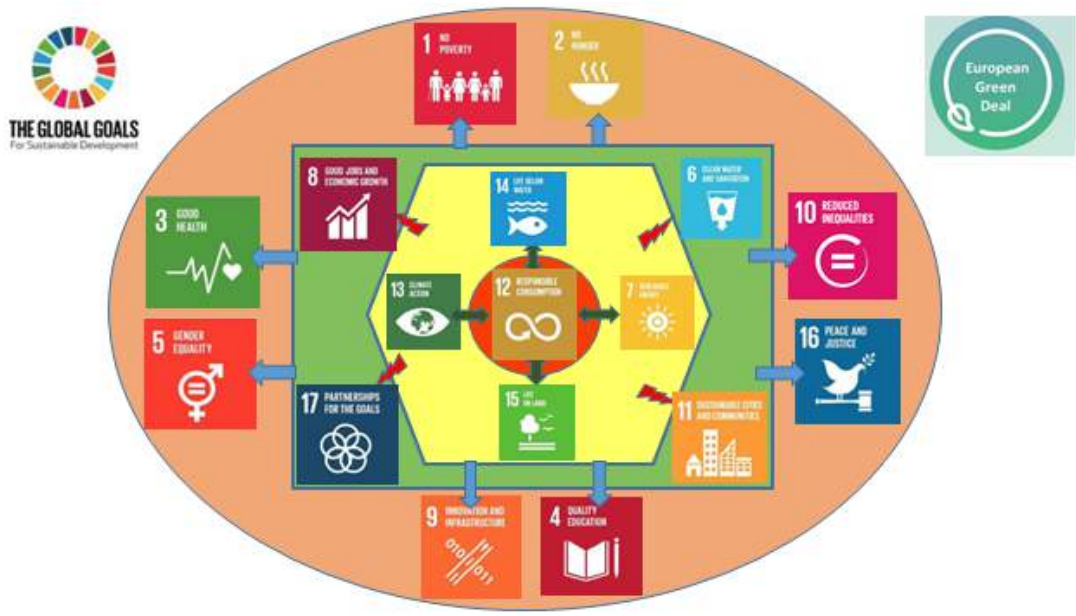
| WHY | Underground pollution is, as for oceans, one of the most difficult to eliminate. In particular, it can progressively affect groundwater resources during decades (if not more) and constitute a source of major irreversible damage in particular in terms of potable and agricultural water resources. It requires further specific actions, especially in countries providing mineral resources or hosting primary industrial products plants in particular. |
| WHAT | Exploitation of mineral resources and primary industries activities should be further controlled in order to avoid irreversible damage to the ecosystems where these exploitation take place. These limits should be adapted to particular situations taking into account the types of soils, waters, etc. |
| HOW | Define and set more stringent limits, when necessary, for the exploitations activities affecting soils quality. This can be done through appropriate regulations and policies in these fields with clear reachable limits, objectives, and indicators.<br>Ensure their translation into practices worldwide, with means to control that their objectives are reached within the timeframe set. Also ensure that all users of these resources ethically impose that these regulations are applied for accepting to buy their product or services. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level.<br>Also ensure to mobilize the consumers of these resources in order to create appropriate shifts in exploiting these resources. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analyzing what made their success, limits, or failures. |
| ACTION RP | C14 12 - TO CONTROL MINERAL RESOURCES EXPLOITATION (EXTRACTION AND USES) VIA REGULATIONS AND POLICIES |
| WHY | Besides their potential and sometimes major ecological impacts, the exploitation of mineral and fossil resources generate major problems regarding the human conditions in which these resources are exploited: accidents, deaths, serious and irreversible health damages, social conditions, and human exploitation. |
| WHAT | The conditions of exploitation of these mineral and fossil resources should be further regulated and controlled worldwide in order to make them sustainable from all points of views. |
| HOW | Define and set more stringent limits, when necessary, for these activities through appropriate regulations and policies in these fields with clear reachable limits, objectives, and indicators.<br>Ensure their translation into practices worldwide with means to control that the regulation objectives are reached within the timeframe set. These limits should be adapted to particular situations taking into account the specificity of the activity and their constraints.<br>Also ensure that all users of these resources impose that these regulations are ethically applied for accepting to buy the mineral and fossil resources and the associated services. |
| WITH WHOM | Depending on the type of activities and responsibilities, make the most appropriated bodies to promote the willingness, actions plans, and means to operationally reach the objectives by acting at all levels of the emissions of the atmospheric pollutants, all along their lifecycle from production to the citizen at consumer level.<br>Also ensure to mobilize the consumers of these resources in order to create appropriate shifts in exploiting these resources. |
| HINTS | Take advantage of the various other existing regulations and policies in place worldwide by analyzing what made their success, limits, or failures.<br>The degree of compliance to the 17 Sustainability Development Objectives (SDGs) would be a suitable reference. |
| ACTION RP | C33 4 - TO ADOPT STRICT REGULATIONS ABROGATING ECONOMICAL, FINANCIAL, AND ECOLOGICAL PREDATORY PRACTICES |
| WHY | The present economic systems present some predatory practices at various levels (ecological, social, economic) which are significant obstacles to the required transitions towards a sustainable use of planetary capital resources limited to their sustainable limits. |
| WHAT | To put an end to the predatory excesses of liberal and free market practices. Some are still able to escape the global harmonisation of financial and economical rules necessary for a sustainable exploitation of the planetary capital resources. |
| HOW | By:<br>- Neutralising these practices through specific regulatory means applied both at national and international levels;<br>- Penalising and/or fining these practices through uniformed taxation systems;<br>- Encouraging a) alternatives, such as differential taxation systems as those existing in carbon emission trading rights *(a.o. ETS permits),* or b) extensions to the intrinsic externalities of products or services. Taxations would concern products/services lifecycles phases which consume fossil carbon;<br>- Offsetting bad behavior patterns by fostering international corporate social responsibility (CSR) practices with agreed national ethical conditions. |
| WITH WHOM | Field experts and authorities have to define and make adopt these means at international level in order to put an end to those predatory practices where markets and financial practices are not sufficiently regulated or when discouraging those ready to invest sustainably. |
| HINTS | N/A |

| ACTION TR | C11 2 - TO EDUCATE ABOUT THE SHARING OF QUALITATIVE VALUES AND ITS INTEREST FOR COLLECTIVE ECONOMIC ENDEAVOURS |
|---|---|
| WHY | Rethinking the goals of the economy beyond the simple production of material goods is one of the basis of the Green Deal. |
| WHAT | To educate on the concepts of a welfare less dependent on the quantities of material goods and more oriented to the qualities of services in the broad sense of the term. |
| HOW | By developing pedagogic documents of various levels for the different audiences concerned: scholars, higher education, civil society, and all stakeholders. |
| WITH WHOM | Involve educational structures and also all other civil and professional organizations (NGOs, Federations, etc.) playing a role in economic endeavors. |
| HINTS | The challenge is to induce a real evolution of the present paradigms which are based and focused on a quantitative economic growth as providing welfare. |
| ACTION TR | C12 4 TO EDUCATE ABOUT CIRCULAR ECONOMY PROCESSES |
| WHY | For creating circular economy processes with a full lifecycle view. The benefit is in enhancing perennial outcomes exiting from linear industry models. |
| WHAT | Educating on service-based models, which oppose obsolescence from a downstream to an upstream functional way, by learning to act on:<br>- Raw and secondary materials, including fossil carbon;<br>- Components;<br>- Products & objects;<br>- Their use, repair, and recycling phases. |
| HOW | Taking advantage of the already abundant existing training resources and experience in the circular economy field and adapting these to target specific domains. |
| WITH WHOM | Professionals trained to circular economy processes: consultants, internal resources staff, and other stakeholders involved in their own domain. |
| HINTS | As found in other actions, the integration of all involved stakeholders involved in a given product/service lifecycle chain is essential. |
| ACTION TR | C31 1 - TO DEVELOP RELEVANT CAPACITIES AND A RELEVANT KNOWLEDGE FOR ENACTING FIELD PLAYERS |
| WHY | Future models able to ensure a sustainable welfare for both present and future human generations, in respect of the limits of the resources provided by the planetary capital, require to break out the present limits of reductive conventional mental paradigms *(see a.o. Action RD C25 1).* |
| WHAT | To apply the models described in Action RD C25 1.<br>To break out these mental limits for setting up operational and integrated means that are compatible with really sustainable processes, and projects. Toward efficiently ensuring welfare for human societies and planetary capital resilience. |
| HOW | By integrating the revised understanding of scientifically established facts and visions and of revised core ethical principles relative to individuals in a society.<br>By operationally building integrated actions plans for really affordable and sustainable welfare states that respect the limits of planetary capital resources. |
| WITH WHOM | Associate representative stakeholders and experts *(academic, ethical, ecological, social, economical, political, societal, etc.)* to make the fundamental evolution for the specific domains involved possible. |
| HINTS | Take advantage of the various other existing evolved models and practices in place worldwide by analyzing what makes their success, limits, or failures. |
| ACTION TR | C31 2 - TO DEVELOP OPERATIONALLY RELEVANT INTEGRATED TRANSITION PLANS PUTTING IN PRACTICE THE REVISED STRATEGY OF SUSTAINABLE WELFARE DEVELOPMENT |
| WHY | There is a necessity to operationally build the integrated transition plans breaking out the limits of previous reductive models and practices and making the transitions towards affordable and sustainable welfare states possible. Inclusively of really respecting the resources limits of the planetary capital. |
| WHAT | To put the integrated transition plans adopted within the revised paradigmatic context of sustainability into operational practice. |
| HOW | By analysing the adopted transitions action plan to be considered in a particular domain within its more global context to define precisely the appropriate objectives, indicators, methods, means, and practices. |
| WITH WHOM | Associate experts in competence domains covering ecological, social, economic, and also ethical dimensions to adopt realistic and affordable actions plans compatible with the global welfare objective and constraints. |
| HINTS | Take advantage of the various other existing practices in place worldwide by analyzing what makes their success, limits, or failures. |

# GOING FURTHER ON

## THE 43 IMPLEMENTABLE ACTIONS…

As explained, each of the 43 Action fiches found in ANNEX 5 above directly derives from the reasoning performed from the C0 root concept ***"A Systemic and Global Green Deal That etc."*** discussed above. Therefore, for each Action take-up, the full reasoning path offers the plain and transparent justification for both its rational existence and interest.




Furthermore, it is often important to prioritize Actions respectively to the two key dimensions of Importance and Urgency for any stakeholders group and relatively to the impending context.

The Actions can for instance be clustered in order to provide a set of strategic options to prioritize. At this point, the relevant correspondence with the 17 UN's SDGs can be exploited (side (image).

## …FOR ROADMAPPING FUTURES IMPLEMENTATIONS OF THE GREEN DEAL

The discussing the relative Importance and Urgency dimensions viz any Action is out of the scope of this work. Plotting Actions along these two axes becomes relevant for given contexts and stakeholders and should be operated in synergy among them. As far as possible, the activity defined should come with indication of their time frame: short/medium/longer-term and this would normally be assessed by field responsible persons working in orchestra-like harmony.


*Where the orchestra becomes the concrete materialization of the need for a harmonized systemic management of the different dimensions of the challenges facing our societies.*

## Caveat

All ideas, notions, and relative constructions mentioned in this document were developed for educational purposes and are provided as possible developments from the original Green Deal document of the European Union. They are genuinely based on the long and continued field experience of the authors and shall not be understood as advices, recommendations, or any intention to influence the work of professional parties thereof. The authors decline any responsibility as for any use by third parties that may be made from the present document as well as for any consequence resulting from it.

## Credits



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