UNIVERSAL DECLARATION OF LIVING BEINGS COEXISTENCE

Article 0

Life exists in the Universe.

The living beings aware of their existence would like life to be perennial.

FOREWORD

This UNIVERSAL DECLARATION OF LIVING BEINGS COEXISTENCE attempts to propose benchmarks and organizational keys which would make it possible to respond to the numerous calls from the United Nations-IPCC-IPBES-COP warning since the end of the 20th century about the "planetary boundaries overshoot": the structurally divergent trajectory (increasing and blind) of the organizational model that we have inherited would endanger the existence of living beings, human species included, on our finite planet.

The human species would therefore be obliged to invent a new organizational model if we wish to preserve the perenniality of living beings on the long term.

This document therefore brings together in a very synthetic way the common hypotheses of the existence of living beings and proposes **a minimal organizational structure:**

- separation of powers: TO KNOW / TO ACT / TO HAVE,
- necessary measures of reality to be continuously updated (indicators),

which would give us knowledge of the "right" LIMITS and would empower us to respect them, thus allowing the establishment of a perennial organization for living beings existing in a FINITE BIOSPHERE.

The elements presented here are the conclusion of the analysis developed in the Living Beings Manifesto, available free online here www.peacenlive.com. If you are missing information to understand certain elements presented here, do not hesitate to consult this Manifesto.

These proposals do not claim to be irrevocable and are to be continuously updated with KNOWLEDGE extension, accordingly with the first postulate of the physics of the Universe: the laws of the Universe are homogeneous throughout the Universe (no singularity).
Therefore, if something does not happen as "expected" somewhere in the Universe, it may be because the current description of the Universe that we have is incomplete or incorrect; it is therefore necessary to remain open at all times to learn from the Universe, to improve and to update the description of its laws.

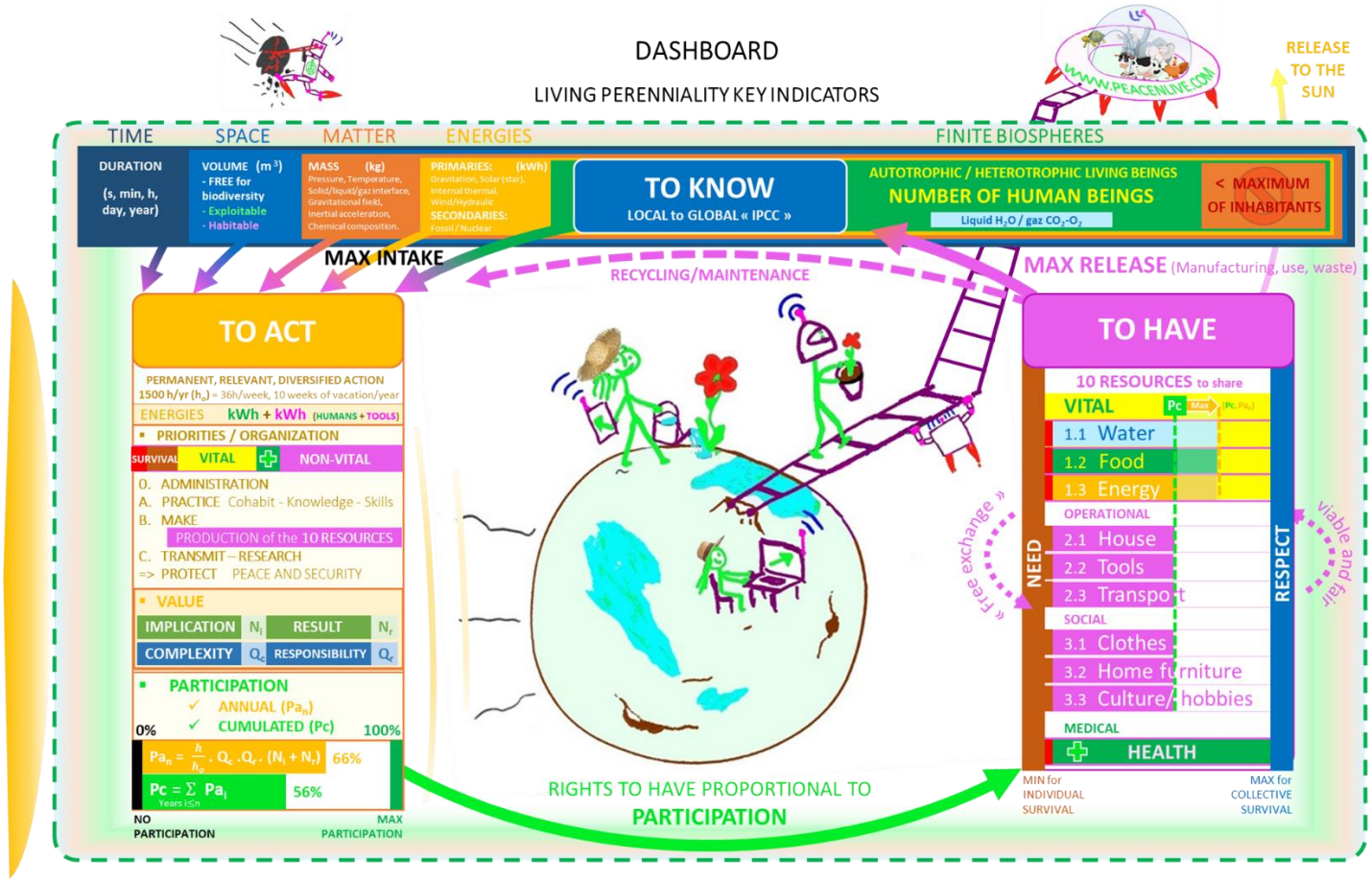
SUMMARY

ISSUE:

What MEASURES of reality, with knowledge of their LIMITS, must be kept up to date and made available to all, and by what minimal institutions, to empower a **perennial realization of a justice TO ACT and TO HAVE inside a FINITE BIOSPHERE?**

PROPOSAL OF THIS UNIVERSAL DECLARATION:

3 institutions TO KNOW – TO ACT – TO HAVE updating these measures of reality:



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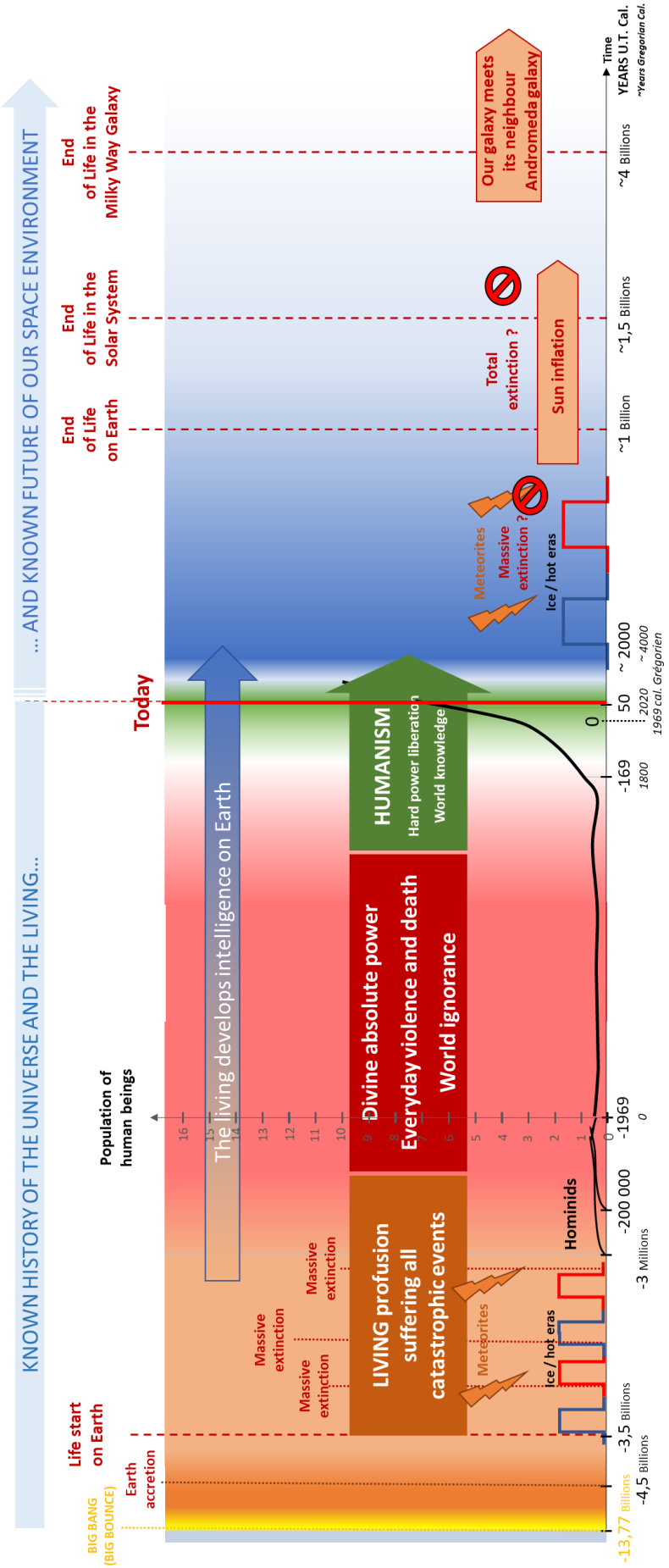
A

LIVING:

COMMON

HYPOTHESIS

I. HISTORY AND FUTURE



II. EXISTENCE IN THE UNIVERSE

Article A.II.1

FINITE BIOSPHERE: In the Universe (TIME, SPACE, MATTER, ENERGY),

- ✓ in a sufficient volume containing a sufficient quantity of MATTER,
  - in a physical context allowing the SOLID, LIQUID AND GASEOUS states of MATTER to coexist (pressure, temperature, gravitation, inertial acceleration – rotating frame),
  - MATTER made up of a suitable distribution of atoms (C,H,O,N,Ca, etc.), including the presence of liquid water (H2O) in large quantities,
- ✓ in the presence of an almost constant source of ENERGY on a cosmic scale (millions of years - radiation from a star or internal fusion of a planet),

➢ **a spontaneous form of construction and animation of MATTER can exist: THE LIVING**

The LIVING is made up of LIVING BEINGS in osmosis with their inert environment (physical and chemical properties of the environment) and interdependent between each other (reproduction, food chains, …): no LIVING BEING can exist alone. They COEVOLUTE together in a continuous chain, self-transforming, adapting, improving themselves in their environment.

Notes:

- ➢ *The living really exists in the "Universe", the terrestrial rock is really a space rock "like the others", where the physical and chemical conditions are simply adapted to life. The fact that living beings do not turn to dust in the International Space Station or on the Moon demonstrates that the earth rock does not have a "specific property" that would allow life to exist.*
- ➢ *The origin of existence in the Universe of this spontaneous capacity of construction and animation of MATTER is a mystery for the human species.*

Corollary $\overline{\text{A. II. 1}}$ (contrapositive)

If the capacity of existence of living beings remains a mystery, one CERTAINTY is that living beings, as we know them on Earth, cannot exist outside of the previous physical and chemical conditions.

KNOWN UNIVERSE FROM "THE INFINITELY SMALL" TO "THE INFINITELY LARGE"

Planck « Constants »

Light Velocity (c)

A light year

10^{-43}s ... 10^{-13}s ... 10^{-9}s ... 10^{-6}s ... 10^{-3}s 1s 1min 1day 1year 100years 10^{3}years ... 10^{6}years ... 10^{9}years ... 13,7 .10^{9}years

Events characteristic durations (age, life time, transformation time...) **TIME (second, year)**

Speed ≤ c

Special Relativity

10^{-35}m ... 10^{-18}m ... 10^{-10}m ... 10^{-8}m ... 10^{-5}m ... 10^{-2}m ... 1m 10m ... 10^{7}m 10^{9}m ... 10^{13}m ... ... 10^{21}m ... 10^{26}m

10^{8}m/s 10^{16}m/an

Size magnitude **SPACE (meter)**

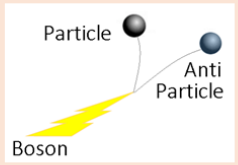
QUANTUM FIELDS | **ELECTROMAGNETISM** (photon) | **GRAVITATION** General relativity « Dark matter » « Dark Energy »

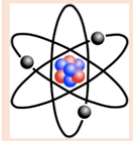
« Matter-Energy duality » $E = mc^2$ « Atomic Energy » « Light » « Electricity » « chemistry »

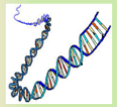
LIVING

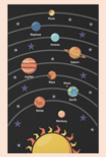
MATTER

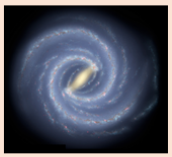
Elementary particles | Atoms | DNA/RNA strand | Cell | Insects | Human species | Biggest living beings (whales, trees,...) | Earth | Sun | Solar system | Milky way galaxy











Weight magnitude **Weight (g, kg)**

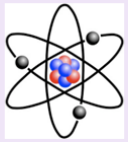
10^{-34}g ... 10^{-24}g ... 10^{-22}g ... 10^{-17}g ... 10^{-9}g ... 1g 1kg 100kg 10^{3}kg ... 10^{24}kg ... 10^{30}kg ... 10^{41}kg ... 10^{60}kg

6,626.10^{-34}W ... 10^{-19}W ... 10^{-12}W ... 1W 100W 1000W ... 10^{12}W 10^{26}W ... 10^{38}W **Power (W)**

Events characteristic power magnitude (Watt = J/s = Energie/s)

Technology : material assembly by the human species

Synthetic atoms (atomic number > 94) | Nanotechnology | Watch | Hoover | Car | ISS | Rocket | Internet



10^{-22}g ... 10^{-17}g ... 10^{-9}g ... 1g 1kg 10kg 10^{3}kg 10^{5}kg 10^{6}kg 10^{9}kg **Weight (g, kg)**

Magnitude

10^{-6}W 1000W 10^{5}W 10^{5}W 10^{8}W 10^{10}W **Power (W)**

1st principle : CONSERVATION

2nd principle : EQUILIBRIUM

Volume, pressure, temperature, chemical composition, state (solid, liquid, gaz, plasma,...), of thermodynamics

III. A LIVING BEING IN A FINITE BIOSPHERE

Article A.III.1

LIVING BEING: (nature)

A living being is a closed set of matter having a wall between an interior and an exterior, provided with an own, spontaneous, autonomous and homogeneous capacity at every point of its interior to manage MATTER and ENERGY to achieve its process of:

- construction,
- operation,
- maintenance,
- and reproduction,

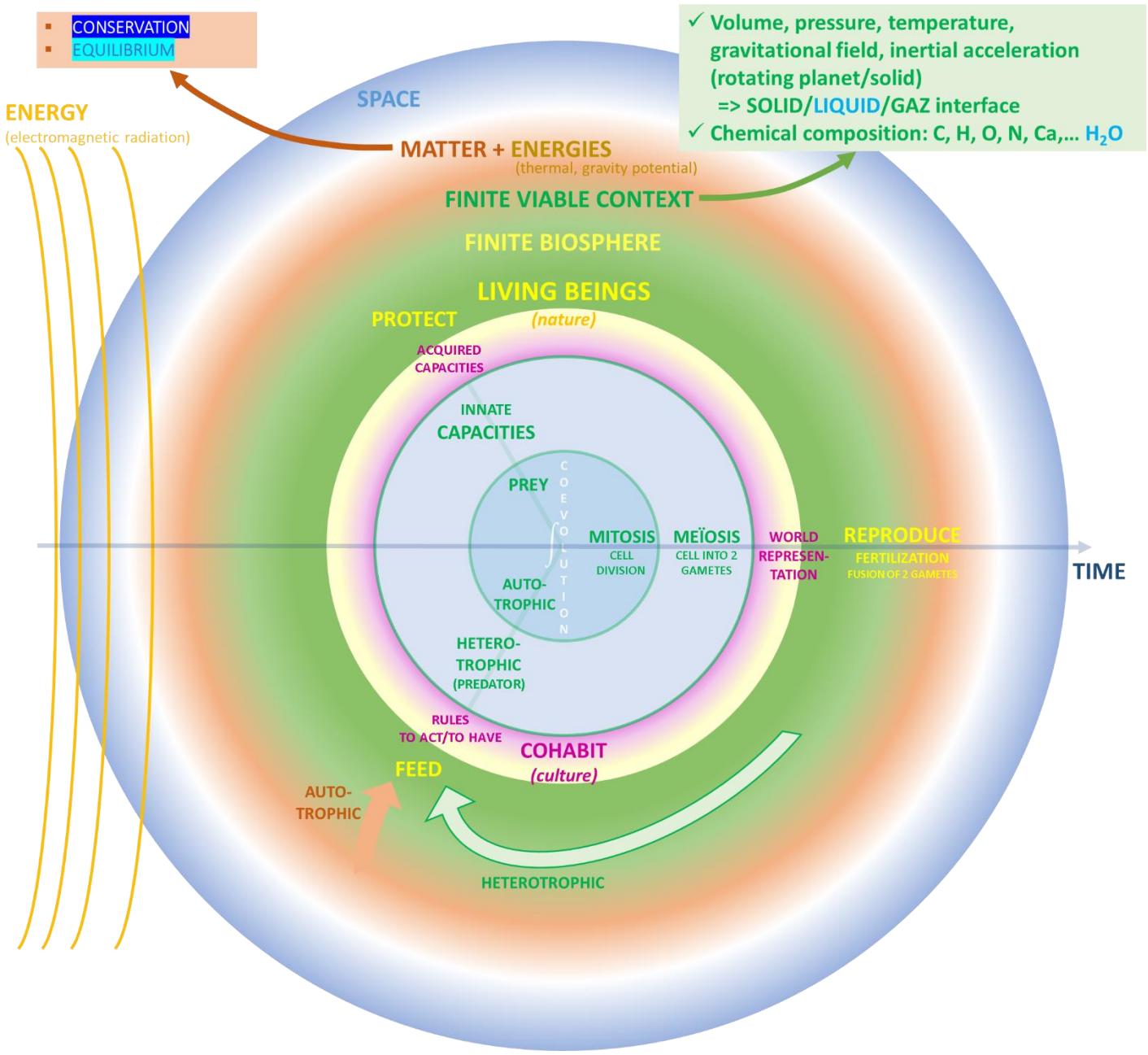
processes carried out by the cell for terrestrial life (concept of autopoiesis).

The construction of the living seems to take place around 3 stages:

- digestion (feed):
  - **autotrophic:** capable of constructing its own organic matter from "inert" MATTER and ENERGY (light, thermal);
  - **heterotrophic:** feeds on organic matter produced by other living beings or digestion of other living beings (prey-predator).
- cell division: identical replication of a cell (*mitosis*, *DNA/RNA*).
- cell fusion (*sexual reproduction*): *meiosis* of a cell into two gametes ("half cells"), one of which fuses with a gamete produced by a congener of the same species, to give a new cell (*fertilization*), a new living being.

Living beings have INNATE CAPACITIES allowing them to live in their ecosystem:

- ✓ capacities to recognize their biological identity:
  - self and not self (immune system);
  - their group of similar/breeding individuals (species);
  - their place in the food chain (prey/predators).
- ✓ operational capacities adapted to their environment:
  - perception in the environment (the senses: sight, hearing, etc.)
  - information processing (the nervous system, the brain, etc.)
  - mobility (limbs, fins, wings, etc.)



Many species use their INNATE CAPACITIES for COHABITATION purposes (culture):

- modeling the use of these capacities in a specific way: ACQUIRED CAPACITIES to communicate (languages), feed, build (technique), defend, entertain oneself...
- defining a frame to live together: rules TO ACT and TO HAVE,
- based on a shared representation of the world (values, mystery, beliefs).

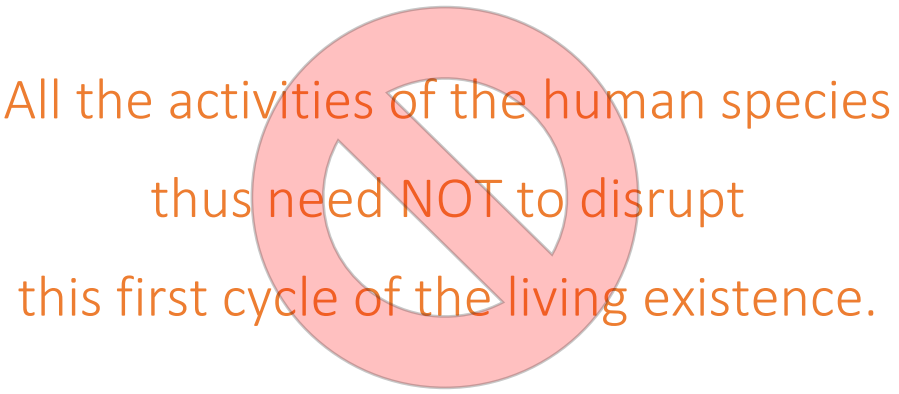
From this construction in a culture, there exists a secular inertia from which the principle of secularism is born: acceptance and respect for differences are necessary to allow peaceful cohabitation of living beings.

Page 12: "The living develops intelligence on Earth"

Choice to define the word "intelligence" in this UNIVERSAL DECLARATION as the set of CAPACITIES enabling a species to construct in MATTER the tools (technology) empowering it to extend the perenniality of the LIVING through SPACE emptiness.

The capacity of existence of terrestrial heterotrophic living beings (living beings that do not produce their own organic matter), including the human species, and therefore the maximum number of human beings, is therefore limited by this first reality:

- available inert matter (including quantity of liquid water),
- incoming energy (solar radiation),
- fresh water cycle,
- autotrophic living beings growth capacity (plants).



B

EQUALITY:

TO ACT AND TO HAVE

IN A

FINITE BIOSPHERE

PROBLEM

What MEASURES of reality,

with knowledge of their LIMITS,

should be kept up to date

and made available to all,

and by what minimal institutions,

to enable the realization

of a justice TO ACT and TO HAVE

while respecting

the limits of a FINITE BIOSPHERE?

I. NEED DEFINITION

Article B.I.1

FINITE BIOSPHERE: ANY ORGANISATION SHALL

- exist,
- be designed,
- be capable to adapt itself,

in order to empower the perenniality of the living beings existing in a finite viable context.

Article B.I.2

TO ACT: ACTION OF ALL SHALL BE

- PERMANENT,
- RELEVANT for oneself and for the coexistence of living beings in a given ecosystem,
- DIVERSIFIED with a maximum FREEDOM of orientation.

Article B.I.3

TO HAVE: DISTRIBUTION FOR ALL SHALL

- cover our NEEDS exactly, without growth nor decrease
  = no one dies of hunger, cold/heat or mild disease,
- fairly VALUE our action (duration, involvement, results, complexity, responsibility),
- RESPECT the limits of resources in a given viable context to allow their perennial renewal.

II. MINIMAL ORGANISATION

Article B.II.1

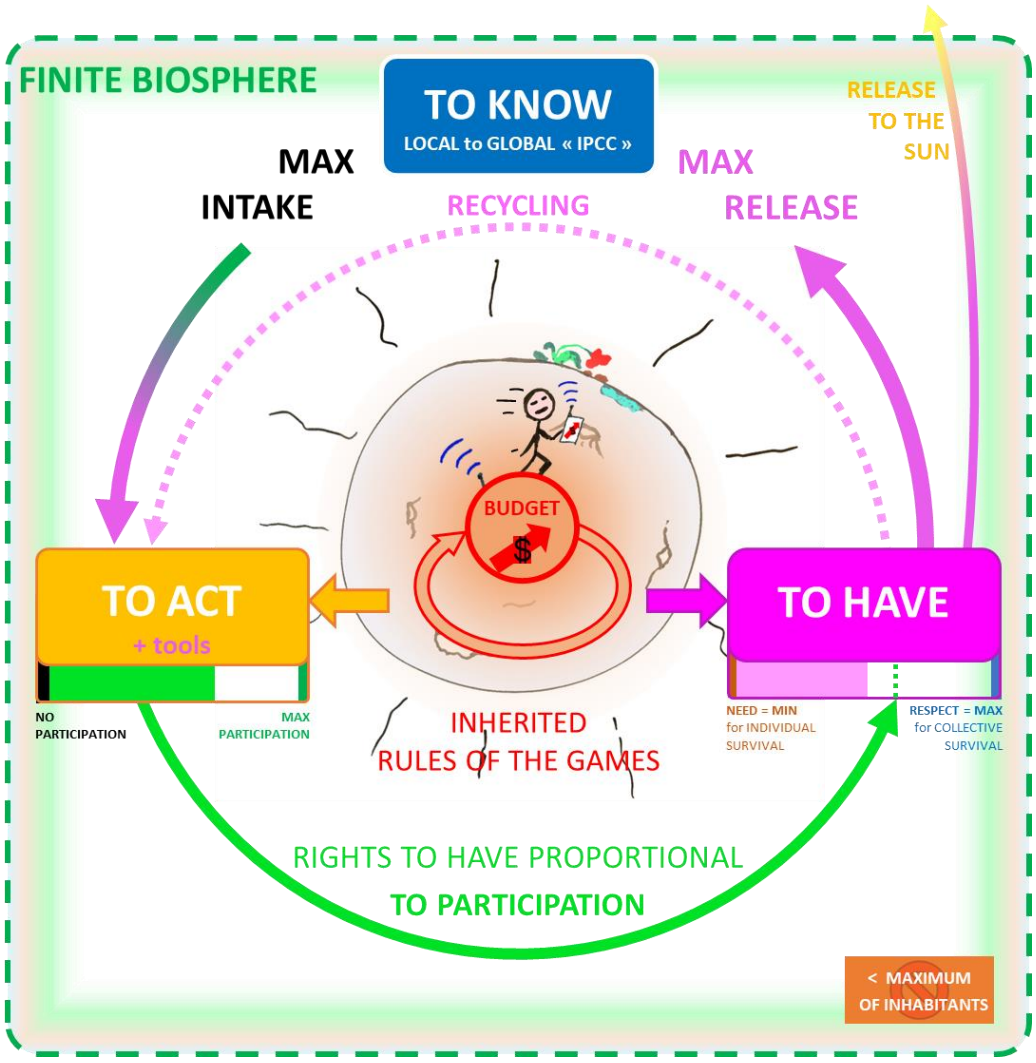
« STATE »

=

LOCAL AUTONOMY EVERYWHERE

PROTECTED BY THE STEPBACK AND COORDINATION OF 3 TEAMS/INSTANCES

TO KNOW – TO ACT – TO HAVE

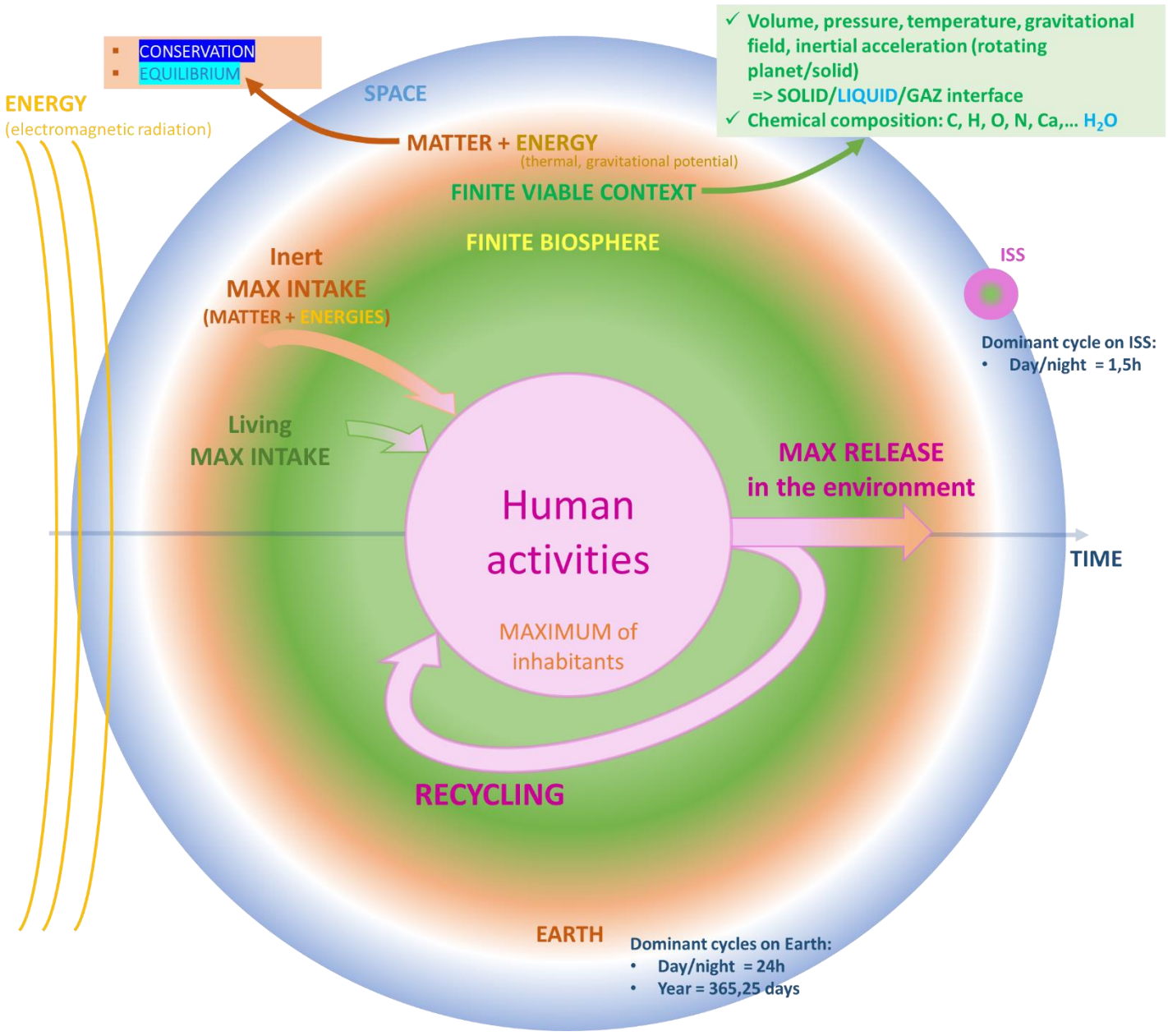


Article B.II.2

TO KNOW

From LOCAL to GLOBAL « IPCC » updating the KNOWLEDGE
of the finite viable contexts, their measures and LIMITS.

Known for now : Earth + International Space Station (ISS)



KEY INDICATORS = Measures and limits of the reality to be continuously updated :

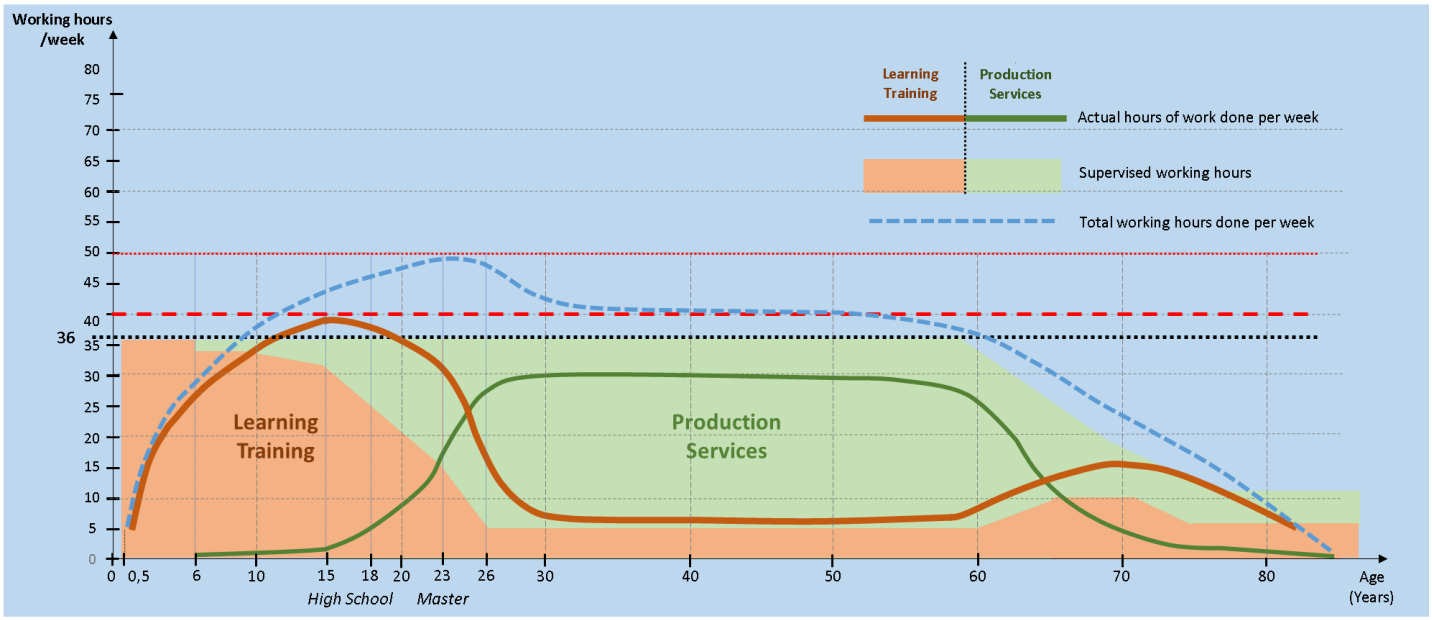
1. **TIME :** duration of viability of a context: estimated start and end dates of life in the given context.
2. **SPACE :** Definition of the SPACE (volume) occupation (Lands/Seas/Sky):
   a. SPACE to be left inoccupied by the human species to leave room for the profusion of biodiversity and the establishment of the LIVING perenniality.
      i. continuity of this inoccupied SPACE through the FINITE BIOSPHERE to allow the co-evolution of LIVING to be preserved.
   b. SPACE exploitable by the human species.
   c. SPACE habitable by the human species.
3. MATTER
   a. Mass, Pressure, temperature, gravitational field, inertial acceleration (for non-negligible rotating reference frames: spaceships rotating on themselves or base on an asteroid rotating on itself).
      i. Interface solid/liquid/gaz (Lands/Sea/Sky),
   b. Composition of the context : (minimum for the existence of terrestrial life)
      i. atoms of "terrestrial life", constituting on average more than 95% of the mass of terrestrial living beings: C, H, O, N, Ca, ...;
      ii. molecules of "terrestrial life": water (H_2O) constituting more than 60% of the mass of all living beings, ….
   c. MAX intake assessment in inert MATTER,
   d. MAX release assessment in the environment.
4. ENERGIES :
   a. PRIMARY (movement) : "permanent" (renewable) at the scale of a star system.
      i. "solar" (radiation from the sun, from the star),
      ii. "Internal" thermal energy (molten core of a planet).
      iii. gravitation (hydraulic energy from falling water, tides, etc.),
      iv. wind/hydraulic power,
   b. SECONDARY (potential) : finite resources (non-renewable) at the scale of a planet, produced from the transformation of "primary" energies.
      i. "fossils": molecules "storing" solar energy (carbon chains resulting from the photosynthetic construction of living beings), others,
      ii. "atomic": atoms "storing" the gravitational energy of a star (radioactive atoms).
      iii. LIVING : mechanical energy (movement) and information processing energy.
   c. MAX intake assessment of ENERGIES.
5. LIVING :
   a. Autotroph living beings ("plants") : mass, species, food chains…
   b. Heterotroph living beings ("animals") : mass, species, food chains…
      i. "Intelligent" species (capable of building tools to cross SPACE emptiness) = number of human beings at the moment (0056 cUT – 2024 cG).
   c. MAXIMUM of "intelligent" living beings viable in the context.
   d. MAX intake assessment of living resources.
6. TECHNOLOGY : context-specific tools to ensure the perennial survival of the living beings.

Article B.II.3

TO ACT

Example of an average ACTION pace over a lifetime :

36h/week + 10 weeks of vacation per year (=1500h/year = h_o)



KEY INDICATORS = Measures of the reality of human beings action :

- ACTION organized like so:
  - 0. ADMINISTRATION (3 INSTITTUTIONS TO KNOW – TO ACT – TO HAVE MANAGEMENT)
  - A. PRACTICE Cohabit – Knowledge – Skills
  - B. MAKE
    PRODUCTION of the 10 RESOURCES
  - C. TRANSMIT – RESEARCH
  - => PROTECT Peace and Security

  With the identification of PRIORITIES in each activity:

- VALUE: on bounded scales
  - ✓ Implication assessment grade : Ni
  - ✓ Result assessment grade : Nr
  - ○ Complexity coefficient : Qc
  - ○ Responsibility coefficient : Qr
- PARTICIPATION :
  - ○ ANNUAL : $Pa_n = [\ \min(h/h_o\ ;\ 1{,}05)\ .\ Qc\ .\ Qr\ .\ (Ni + Nr)\ ]\ /\ Pa_{n\_max}$ (%)
  - ○ CUMULATED : $Pc = [\ \sum_{i \le n} Pa_i\ ]\ /P_{c\_max}$ (%)

Article B.II.4

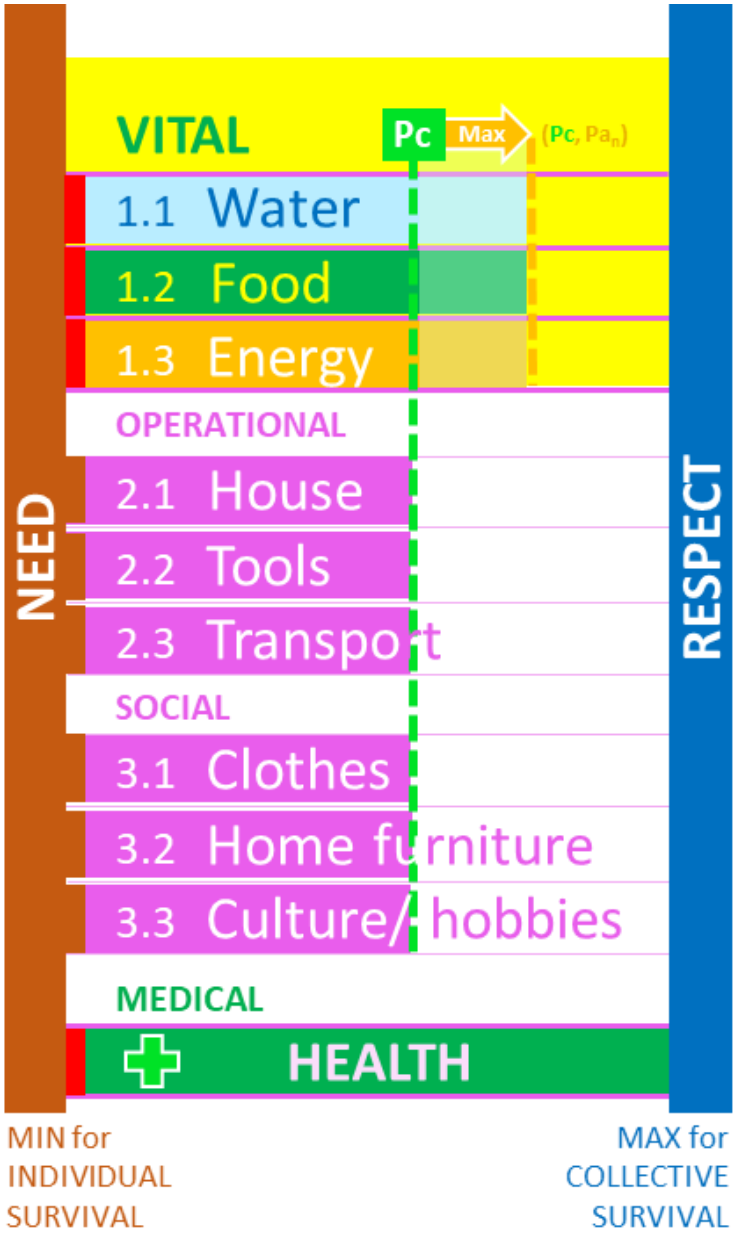
TO HAVE

KEY INDICATORS = Measures of the reality of wealth distribution :

10 RESOURCES to be shared separately:

(PRODUCTION PRIORITIES according to the ACTION PRIORITIES color code)

- ✓ from a minimum for INDIVIDUAL SURVIVAL: NEED,
- ✓ VALUED proportionally to PARTICIPATION,
- ✓ below a MAXIMUM for long term COLLECTIVE SURVIVAL: RESPECT.



III. OPERATION

Article B.III.1

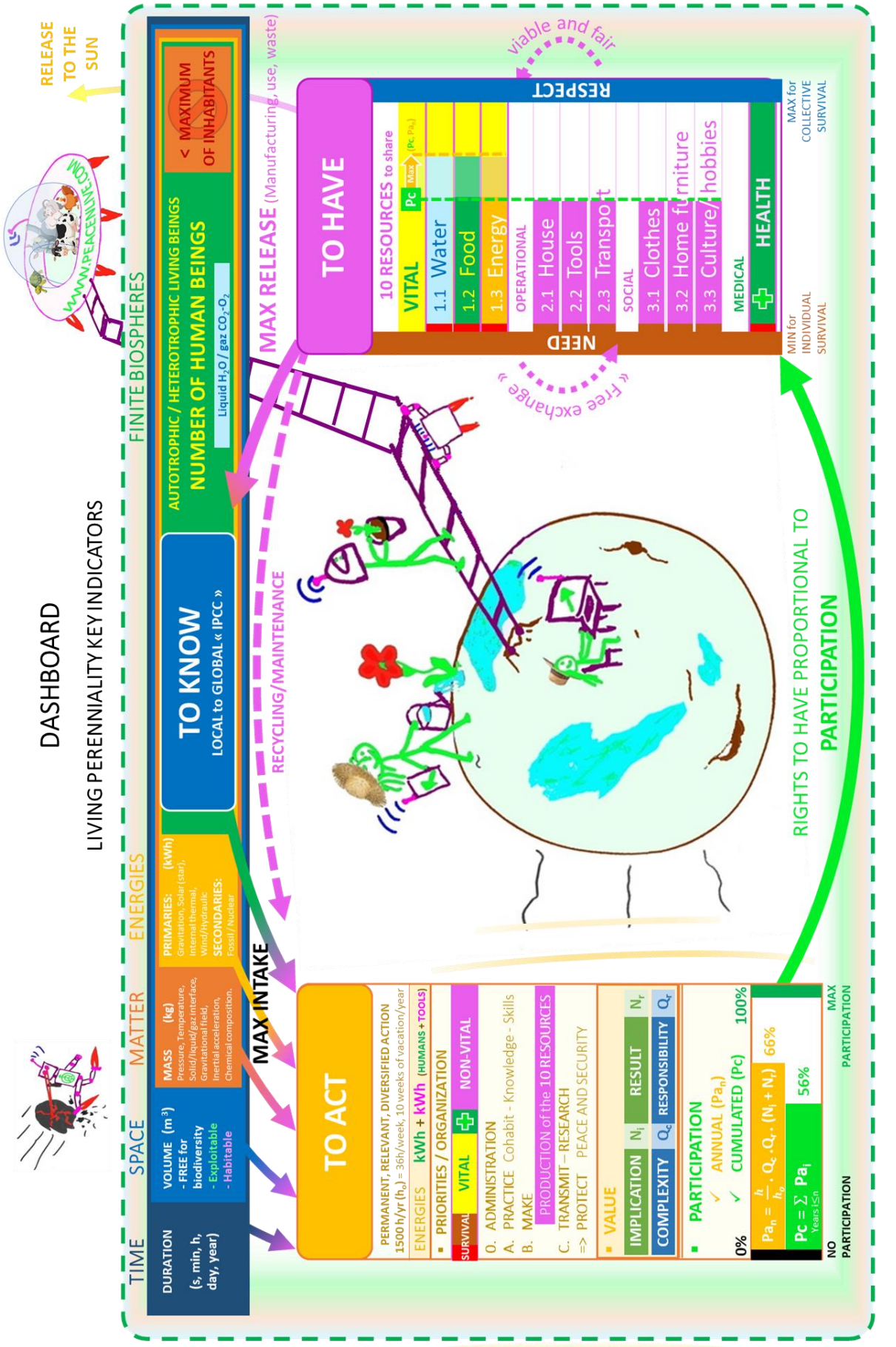
TO KNOW - TO ACT - TO HAVE
3 INSTITUTIONS MANAGEMENT

a. TIME AND SPACE : The issues to be dealt with by the inhabitants of the world through the 3 INSTITUTIONS (FINITE BIOSPHERE, TO ACT, TO HAVE) would be scaled and prioritized according to their SPATIAL AND TEMPORAL SCOPE (from the daily production of eggs, to the management of an ISS-type space station over a century).

b. PRIORITIES : The "democratic elections" would not have as their object the choice of its coordinators, but the PRIORITIAZTION of projects and orientations to be given at each level, from local to global.

c. KNOWLEDGE AND CAPACITY : The management of the 3 INSTITUTIONS (TO KNOW, TO ACT, TO HAVE) at each level would be carried out by trained people, whose KNOWLEDGE AND CAPACITIES for objectivity and impartiality for the PERENNIALITY of a FINITE BIOSPHERE would have been validated, renewed regularly for example according to the proposed pace in the *Administration* column of the table given in APPENDIX 1.2 TO ACT, page 57.

The operating principle would be for each INSTITUTION to continuously update all the identified MEASURES OF REALITY, by producing local syntheses (individual = UNIVERSAL PARTICIPATION Notice) to global ones (possible thanks to our global digital network - internet), which very synthetic presentation would be the following dashboard:


DASHBOARD
LIVING PERENNIALITY KEY INDICATORS
RELEASE TO THE SUN
WWW.PEACENLIVE.COM
TIME
SPACE
MATTER
ENERGIES
FINITE BIOSPHERES
DURATION (s, min, h, day, year)
VOLUME (m³) - FREE for biodiversity - Exploitable - Habitable
MASS (kg) Pressure, Temperature, Solid/liquid/gaz interface, Gravitational field, Inertial acceleration, Chemical composition.
PRIMARIES: (kWh) Gravitation, Solar (star), Internal thermal, Wind/Hydraulic
SECONDARIES: Fossil / Nuclear
TO KNOW
LOCAL to GLOBAL « IPCC »
AUTOTROPHIC / HETEROTROPHIC LIVING BEINGS
NUMBER OF HUMAN BEINGS
Liquid H_2O / gaz CO_2-O_2
< MAXIMUM OF INHABITANTS
MAX RELEASE (Manufacturing, use, waste)
RECYCLING/MAINTENANCE
MAX INTAKE
TO ACT
PERMANENT, RELEVANT, DIVERSIFIED ACTION
1500 h/yr (h_o) = 36h/week, 10 weeks of vacation/year
ENERGIES kWh + kWh (HUMANS + TOOLS)
PRIORITIES / ORGANIZATION
SURVIVAL VITAL NON-VITAL
0. ADMINISTRATION
A. PRACTICE Cohabit - Knowledge - Skills
B. MAKE
PRODUCTION of the 10 RESOURCES
C. TRANSMIT – RESEARCH
=> PROTECT PEACE AND SECURITY
VALUE
IMPLICATION N_i RESULT N_r
COMPLEXITY Q_c RESPONSIBILITY Q_r
PARTICIPATION
✓ ANNUAL (Pa_n)
✓ CUMULATED (Pc) 100%
0%
$Pa_n = \frac{h}{h_o} . Q_c . Q_r . (N_i + N_r)$ 66%
$Pc = \sum_{Years\ i \le n} Pa_i$ 56%
NO PARTICIPATION
MAX PARTICIPATION
TO HAVE
10 RESOURCES to share
VITAL Pc Max (Pc, Pa_n)
1.1 Water
1.2 Food
1.3 Energy
OPERATIONAL
2.1 House
2.2 Tools
2.3 Transport
SOCIAL
3.1 Clothes
3.2 Home furniture
3.3 Culture/hobbies
MEDICAL
HEALTH
NEED
RESPECT
viable and fair
« free exchange »
MIN for INDIVIDUAL SURVIVAL
MAX for COLLECTIVE SURVIVAL
RIGHTS TO HAVE PROPORTIONAL TO PARTICIPATION

C

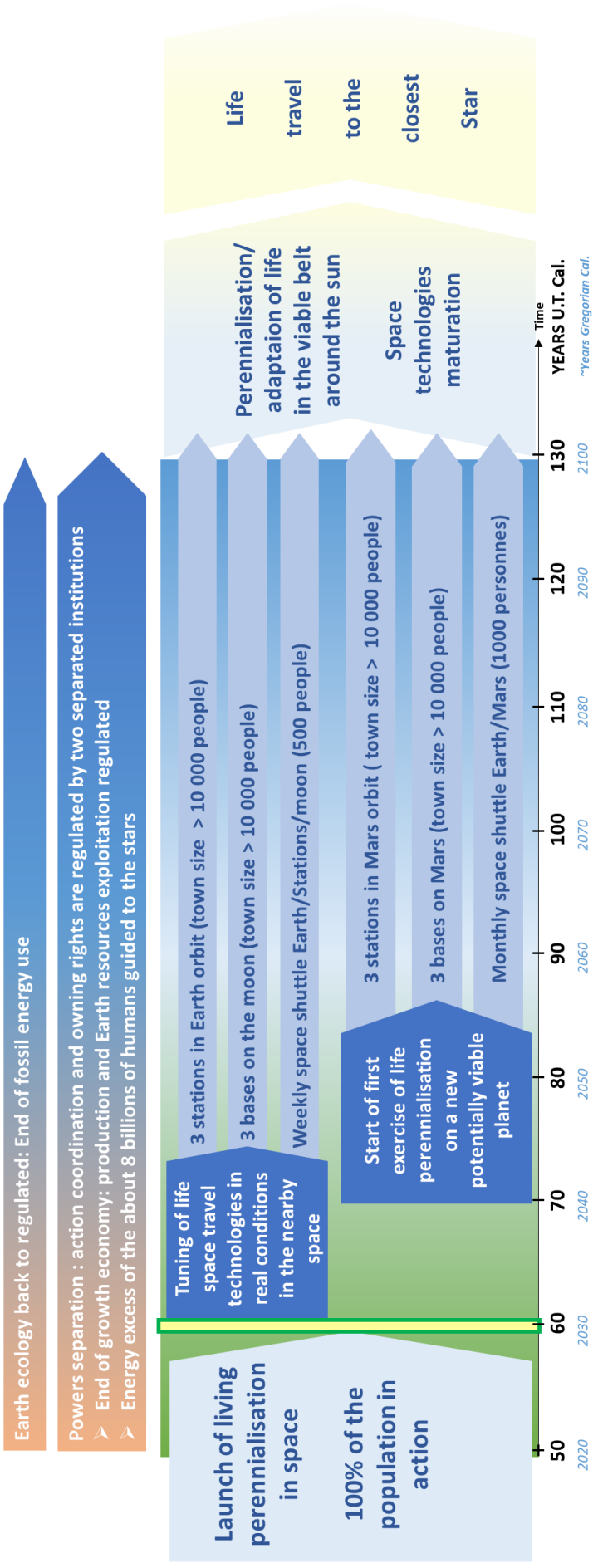
PERENNIALITY:

DIRECTIONS

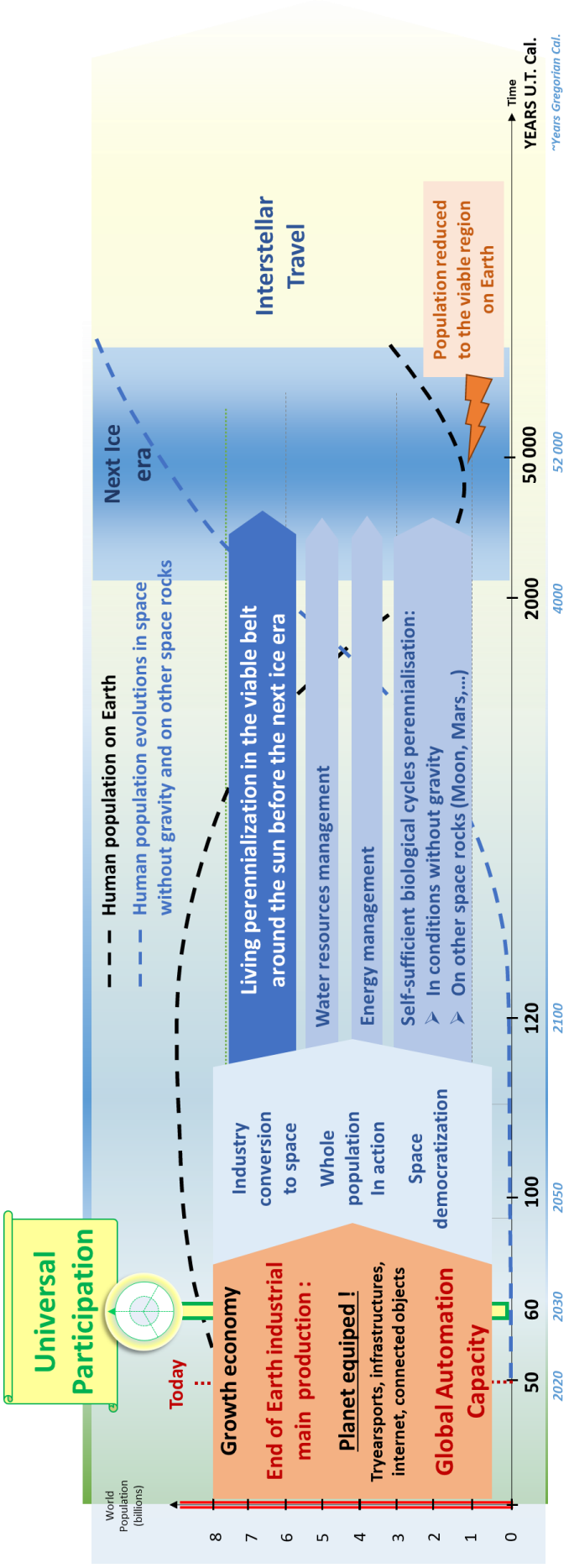
AND

PRIORITIES

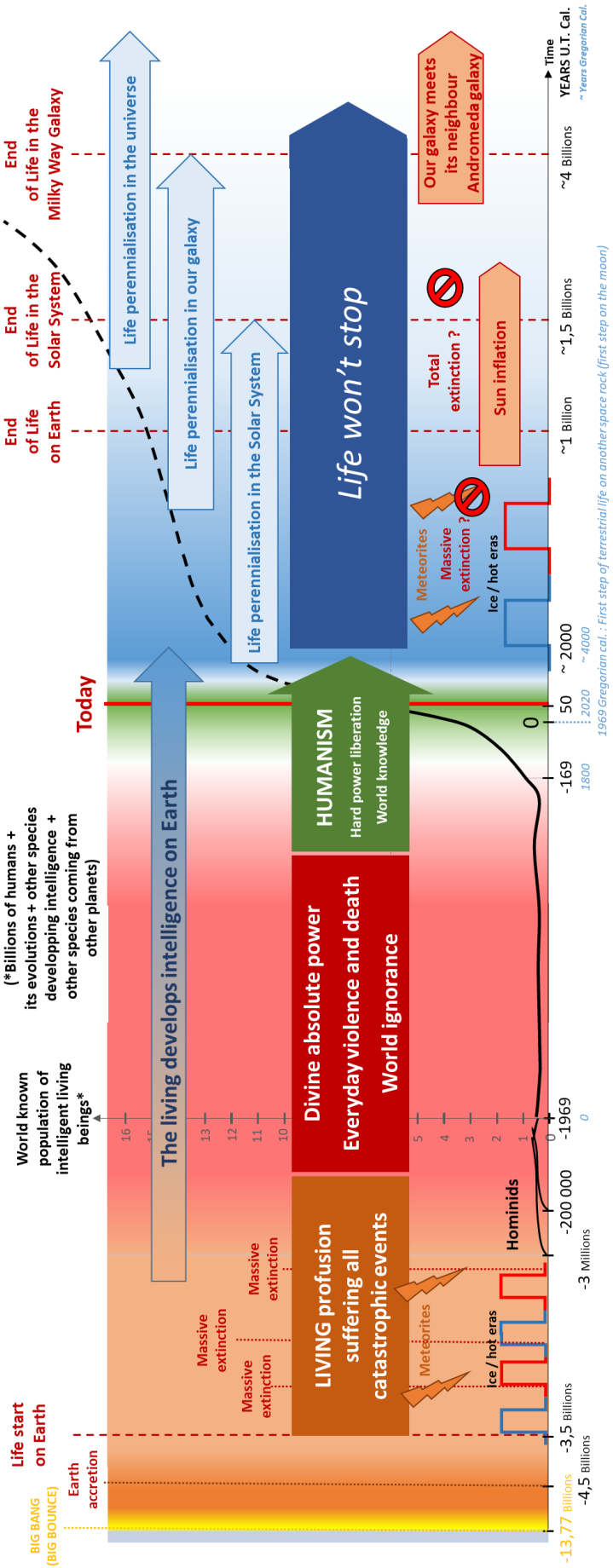
I. SHORT TERM DIRECTIONS



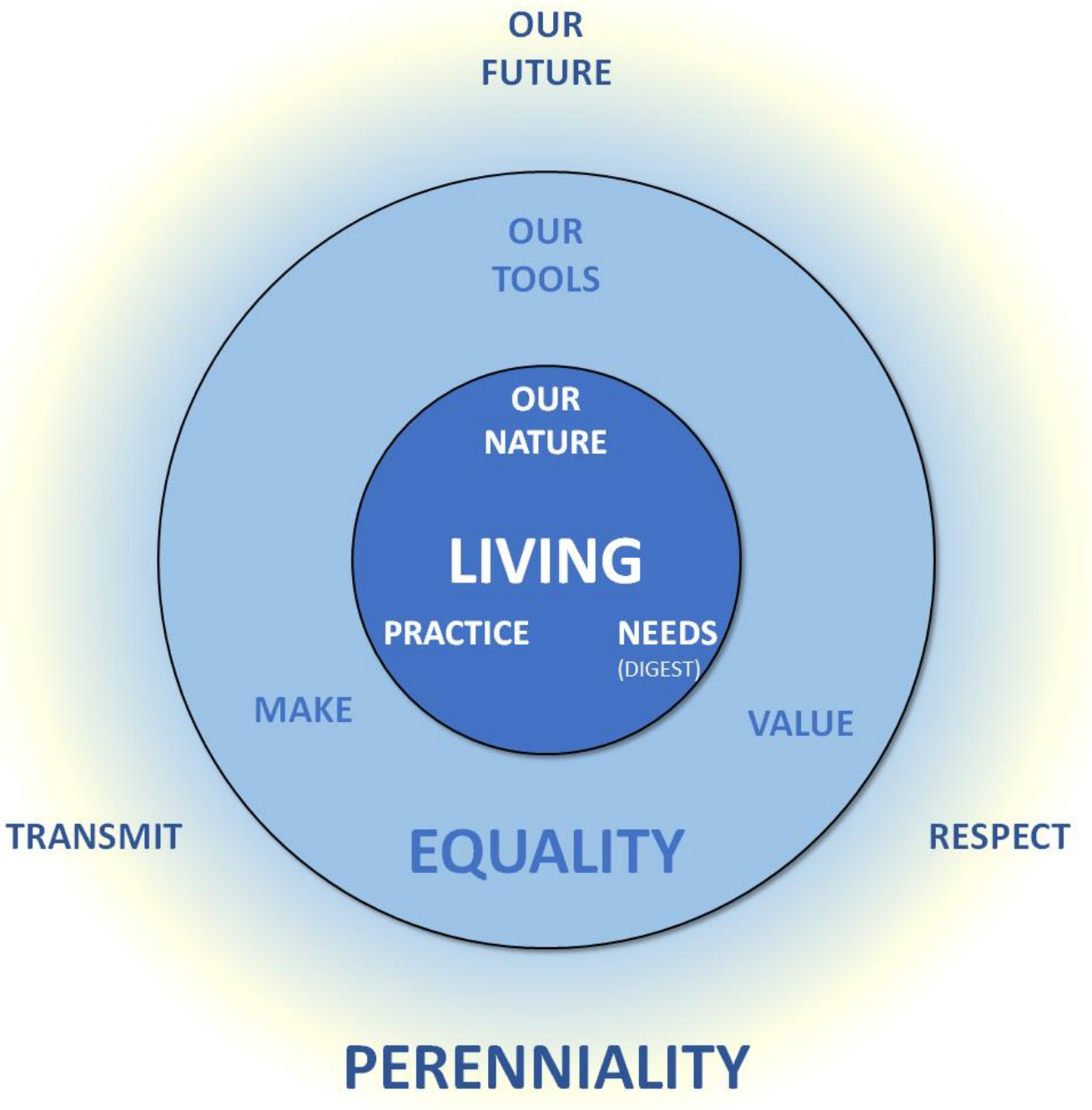
MEDIUM TERM DIRECTIONS



LONG TERM DIRECTIONS



II. PRIORITIES OF EVERY MOMENT



APPENDIX

APPENDIX 1 – Recommendations

THE MOST IMPORTANT TO NOTE in all these proposals for building an organizational structure which would empower the establishment of a justice TO ACT and TO HAVE while respecting the limits of a FINITE BIOSPHERE, are the following points:

1. **MEASURES OF REALITY** : SEPARATE ALL COUNTERS according to the NATURE of what they MEASURE.

2. **FINITE BIOSPHERE :** ALL THESE COUNTERS are bounded and their LIMITS shall be clearly identified.

3. **TRANSPARENCY :**

- **PUBLIC:** DEFINITION OF ALL COUNTERS, THEIR SCALES, LIMITS, AND THEIR OVERALL VALUES, CONTINUOUSLY UPDATED BY THE THREE INSTITUTIONS TO KNOW – TO ACT – TO HAVE.
- **PRIVATE:** INDIVIDUAL VALUES OF THESE COUNTERS, MANAGED SEPARATELY AND ANONYMOUSLY BY THE TWO TO ACT AND TO HAVE INSTITUTIONS DEPENDING ON WHETHER THEY ARE MEASURES OF OUR ACTIONS ON ONE SIDE (TO ACT), OR OUR RIGHTS TO HAVE ON THE OTHER SIDE (TO HAVE).

The important thing is not WHO has the POWER, but whether we have the right INFORMATION to make the right DECISIONS. Beyond, just as schools have different faces across the planet, this structure can be reproduced by tuning and adjusting its parameters according to cultures and what is important to them.

Our cultures and our conventions should also allow everyone to maintain their tolerance and adaptation abilities at all times, keeping in their hearts the fact that nothing is immutable. They should therefore avoid messages and practices that propose to publicly lock in an absolute and definitive manner certain realities, decisions, **commitments** which can be linked to the knowledge of ourselves in a given context at a given moment.

Our capacity for **tolerance and adaptation** should therefore leave room for our own **ignorance** of ourselves and of the world at all times.

APPENDIX 1.1

TO KNOW

From LOCAL to GLOBAL "IPCC" instance - General recommendations:

1. **EXISTENCE:** The spontaneous existence of living beings in the Universe, in a continuous chain that extends at least on Earth for about 3 billion years, would be our first common reality of nature, the "submerged part of the iceberg" ultimately preponderant, thus the FIRST REALITY TO RESPECT.
   Therefore EQUALITY:
   a. **The existence of NO living being is superior to the one of another.**
   b. Language must by default express EQUALITY between all living beings : avoid in everyday language terms expressing domination, even implicitly, over any aspect of living beings existence ("they are just animals", "kids", etc.)
   c. Conventions, rules, standards, requirements, objectives to be met, etc. are "tools" serving the perennial cohabitation of living beings; we must remain capable of adapting them when they do not serve (anymore) the majority of living beings.
   d. Avoid the cultural construction of "borders", of lines on the ground or in our representations, of "TRUE" and "FALSE", of separations between "BEFORE" and "AFTER" which would make us different; the increase in our abilities through training and experience, evolving our power over our environment, as well as the evolution of our rights TO ACT and TO HAVE as we grow, would not change our deep nature... the common central pillar of our existence as living being would remain the same throughout our lives.

   Especially avoid exacerbating cultures as the "soul of a Nation", as our "identity" which would define us deep within ourselves. Cultures are very real and are different but would constitute the "visible part of the iceberg", which shall not hide the overwhelming immensity of the common living nature that we share.

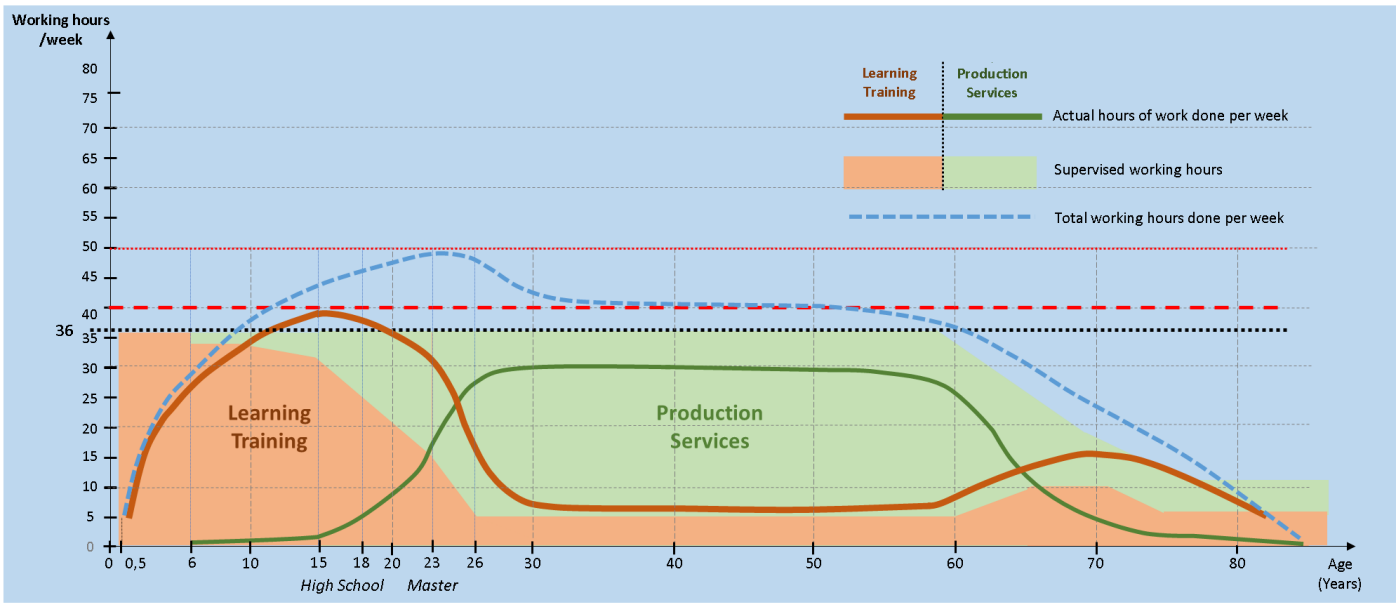
2. **DEATH:** Due to the fact that the existence of heterotrophic living beings passes through the digestion of other living beings, death consciously given to another living being :
   a. autotrophic must not endanger the renewal of the species,
   b. heterotrophic must only be done:
      i. to feed, without exceeding the renewal capacity of the species,
      ii. to protect one's own survival in the moment of aggression (legitimate self-defense).

3. **REPRODUCTION:** The conscious reproduction of a heterotrophic species must not endanger, by increasing its population, the renewal of the species that feed it, putting its own existence in danger : **we should not consciously conceive a child when we know that it will not be able to be fed.**

APPENDIX 1.2

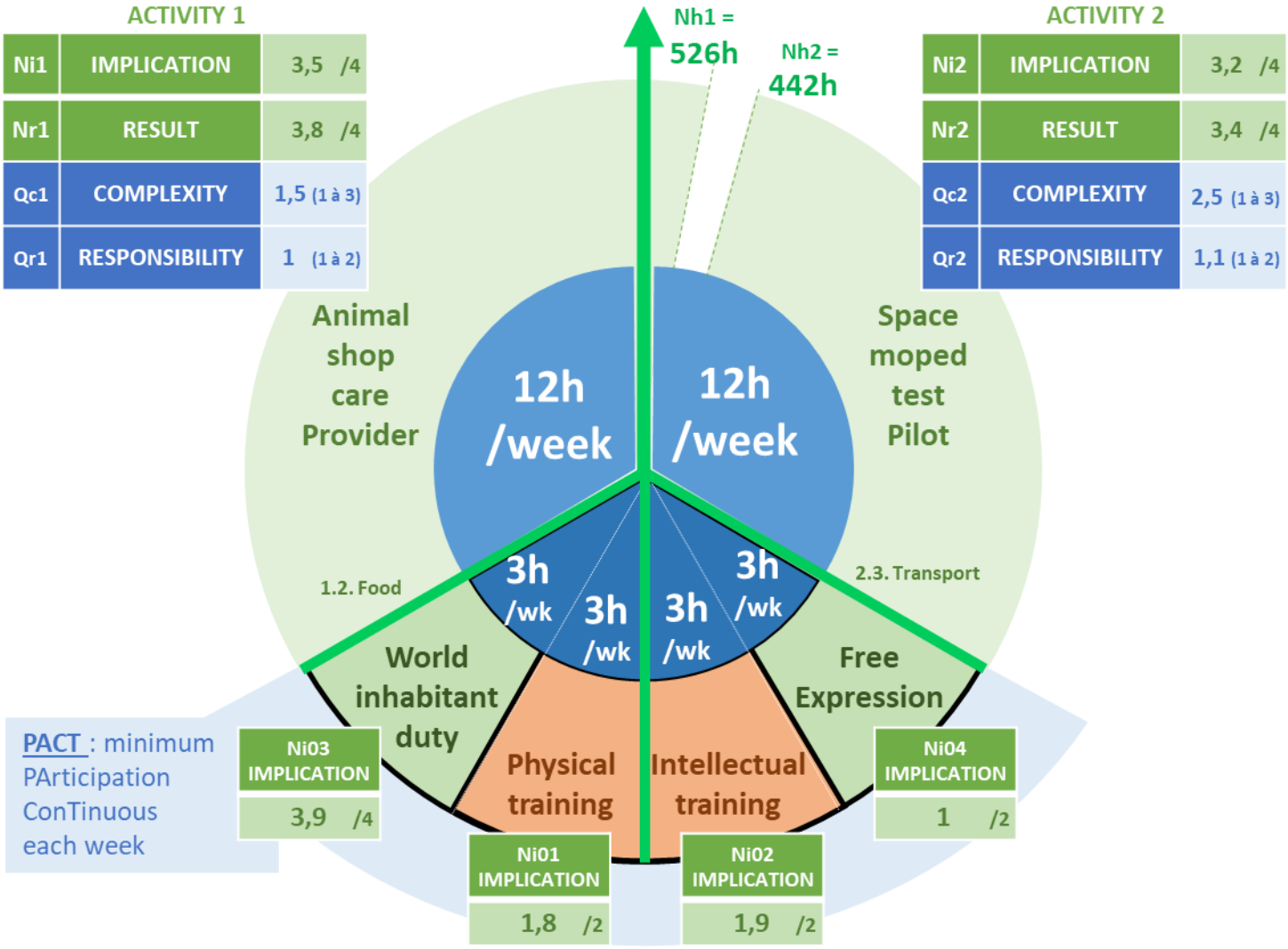
TO ACT

The organization would guarantee a relevant, rich and diversified ACTION throughout life, for instance on the following pace:



- from 6 months to 58 years old: 36h/week with 10 weeks vacation per year (1500h/year),
- from 59 years old to 70 years old: 2h/week less each year, going from 36h/week to 12h/week gradually between 58 years old and 70 years old (always 10 weeks of vacation per year),
- from 70 years old to the end of life: 12h/week (at best according to each person's capacities), 10 weeks of vacation per year.

Time schedule example of the 36h/week (1500h/year) of a person at 35 years old:



The annual duration of 1500 hours/year is a framework to provide a shared and reasonable benchmark, but everyone would be free to participate to the extent they wish or are capable of, with an impact on their rights of TO HAVE evaluated as fairly as possible as explained below.

The time and place of ACTION (of "work") is a neutral moment and space where all the inhabitants of the world find themselves partners, no living being prevailing over another, to build themselves and build the future of the coexistence of living beings, each at their own level and motivation, independently of any "network", any affinity or conflict with this or that person.

For the 1000h/year (24h/week) of ACTION with the PACT (500h/year) put aside, a person could therefore commit each year to participate in one or two different activities in the

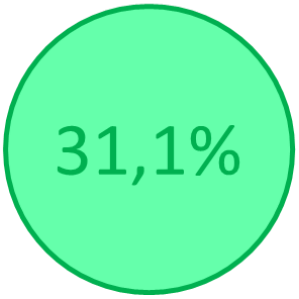
different fields of action, for example by trying to balance in 2 blocks of 500 hours rather physical activities with others rather intellectual, for which they would have acquired during their continuous practice the right level of competence.

This division into 2 blocks of 500 hours/year would not be obligatory either, but it would be a possibility to ensure a regular diversity. On the contrary some activities, as the Administration coordinators with more than 100 000 people for example, would have 1000 hours/year dedicated to their tasks due to the focus and concentration needed to carry all the topics, the PACT already providing diversity and weekly balance.

Recommendations for the ACTION assessment: PARTICIPATION

The scales and evaluation methods of the ACTION would be homogeneous throughout life, applicable from the age of 6 upon entry into school:

ANNUAL PARTICIPATION (Pa)



$$Pa = Ni01 + Ni02 + Ni03 + Ni04 + \min(Nh1/500 ; 1,05) . Qc1 . Qr1 . (Ni1 + Nr1) + \min(Nh2/500 ; 1,05) . Qc2 . Qr2 . (Ni2 + Nr2)$$

- min(Nhi/500 ; 1,05) : value extra time up to 25 hours (5%); more extra time is not valued (it is good to do nothing as well).
- Evaluation bounds : $0 \leq Nx \leq 4$
- Quotients bounds : $1 \leq Qc \leq 3$ and $1 \leq Qr \leq 2$

$1 \leq Qci \,.\, Qri \leq 6 = Q_{MAX}$ = « salary » range

If 1500$/month is the MIN, then 9000$/month is the MAX

Duration Nh: by setting aside 500 hours for the PACT (explained below), the duration of 1000 hours of action per year could generally be divided into 2 blocks of 500 hours to create a diversity of action throughout the year. The division would be free according to the needs of each activity:

- do 500 hours of activity 1 during the first 6 months, then the other 500 hours during the last 6 months;
- or each working week, do 12 hours of activity 1 and 12 hours of activity 2;
- … or other organization depending on the need.

The effective action duration ratio Nh/500 could for example be limited by 1.05 to value 5% overtime if Nh >500 (i.e. up to 25 hours of overtime per block of 500 hours), but would be limited to prevent overwork, and promote the fact that going home or doing fun activities is also good; hence the complete formula for the action duration ratio **min(Nh/500; 1.05)** in the computation of the Annual Participation.

Qc = complexity quotient

The complexity quotient primarily takes into account **the Skill Level Quotient Qc_o :**

SKILLS ASSESSMENT

BASIC SKILLS AND KNOWLEDGE (maintained in particular by the PACT):

PHYSICAL TRAINING			INTELLECTUAL TRAINING		
MOBILITY Body coordination in SPACE and TIME (including voice)	POWER Strength and Speed	ENDURANCE Duration of exercise at a given POWER level	COMMUNICATION Listening, Language logics, synthesis	PROBLEM SOLVING Mathematics and applications	IMPLEMENTATION Technologies and Arts
2	2.9	1.5	1.5	2.7	2.2

ACQUIRED OPERATIONAL SKILLS:

Engineer	Computer program-ming	Veterinary	Technical Maintenance	Music (piano)	Chinese	...
2.7	2	1.5	1.5	2	1.5	2

$1 \leq Qc_o < 1.5$ – COMMON LEVEL: Minimum general training Middle school (15 years old)

$1.5 \leq Qc_o < 2$ – CAPABLE: COMMON LEVEL + 12h/week for 3 years

$2 \leq Qc_o < 2.5$ – MASTER: CAPABLE + 12h/week for 3 years

$2.5 \leq Qc_o \leq 3$ – AUTONOMOUS : MASTER + 12h/week for 3 years

Each level is validated by these durations of activity AND the validation by a test of the new acquired skills, the results of these exams giving the assessment of the skill quotient between 1 and 3, with the three thresholds 1.5, 2, and 2.5.

The Skill Level Quotient Qc_o goes from 0.1 to 1 between the ages of 6 and 15, increasing by a tenth (0.1) each year.

It is calculated based on the average between:

- The skill level of the activity to be carried out **Qco-a,**
- The skill level of the person in this same domain **Qco-p**

For example, if a technician at level **Qco-p = 1.6** is required to design a machine at engineer level **Qco-a = 2.3**, then his complexity quotient will be for the past period **Qco = ½. (Qco-a + Qco-p) = 1.95.**

Or conversely if a cook of very high level **Qco-p = 2.8** must or wishes to go and cook at McDonald's for x reasons for a certain time, cooking level **Qco-a = 1.5**, then his complexity quotient will be for the past period **Qco = ½. (Qco-a + Qco-p) = 2.15**.

To this first term of skill level is multiplied a **coefficient of arduousness** which includes:

- The time slot of the action:
  - Qh = 1 if the action takes place between 8 a.m. and 7 p.m.
  - Qh = 1.2 if the action takes place between 6 a.m. and 8 a.m., or between 7 p.m. and 10 p.m.,
  - Qh = 1.5 if the action takes place at night between 10 p.m. and 6 a.m.
- Difficult physical (very significant effort) or moral (emergencies, prison, etc.) conditions:
  - Qpm = 1 if no notable difficulty apart from carrying out the action itself.
  - Qpm = 1.2 if slight physical or moral difficulty.
  - Qpm = 1.5 if major physical or moral difficulties.
- A disability of the person:
  - Qhp = 1 if no handicap to carry out the activity concerned,
  - Qhp = x depending on the impact of the disability on production.

This arduousness coefficient could also be used in inverse to limit the maximum number of hours worked during a year to give an Annual Participation equivalent to 500 hours worked

with a arduousness coefficient of 1: for example working nights in a prison could have an arduousness coefficient of 2.25 (Qh = 1.5 and Qpm = 1.5); i.e. 220 hours gives the same Annual Participation as a block of 500 hours with a arduousness coefficient of 1. The choice could therefore be to limit this work to blocks of 220 hours over a year.

These values are completely arbitrary and other parameters can be added; as explained in the introduction, the important thing is to express the real different degrees of freedom and constraints of action and to apply limited scales that are explicit and accepted by a majority.

In the end, the complexity quotient could look like this:

Qc = ½. (Qco-a + Qco-p). Qh. Qpm . Qhp

Qr = Responsibility quotient = 1 + 0,1*LOG10(1+N) : my action, my decisions impact the activities, the environment, the daily lives of how many N people?

Qr = 1 corresponds to minimum responsibility where our action/decisions only concern ourselves.

As soon as you manage one person, then you are valued of 3% percent more : Qr = 1 + 0,1*LOG10(1+1) = 1.03.

When you interface with a group of more than 2 people (class of students, company, group of people), then Qr increases proportionally to the decimal logarithm of the size of the group of N people.

The choice of a logarithmic scale is to say that we quickly increase the responsibility quotient at the beginning when we manage from 1 to 10, 20, 50 people... but that ultimately beyond that, whether we manage 100 or 200 people, the coordination issues become quite the same and therefore the responsibility quotient increases less quickly. Besides, the principle of "LOCAL AUTONOMY EVERYWHERE" with the inverted hierarchical pyramid says that we must not depend on high-level coordinators, hence their low level of effective power and therefore a lower increased responsibility quotient as we manage more.

Each activity carried out, with its identified complexity and responsibility quotients, would be evaluated in terms of Involvement and Result on a limited scale (in the example on a scale from 1 to 4) :

Ni = Implication assessment grade

An Ni grade would be calculated based on:

- Presence at all committed hours (no unjustified absences),

- Punctuality,
- Focus/Concentration on the activity (no other activities at the same time),
- Proactivity : make the activity go forward.

Nr = Result assessment grade

An Nr grade would be calculated based on:

- Achieving the shared, potentially reconfigurable objective.

Eventually, what is not clearly expressed in the initial formula for calculating the Annual Participation is that there is a need to NORMALIZE the final result of the calculation by dividing it by the maximum possible grade once all the scales and limits have been set, to have a result as a percentage (%) of the maximum possible PARTICIPATION.

Recommendations for the "PACT" : PArticipation ConTinuous

A "PACT" (PArticipation ConTinuous), 500h/year = 12h/week, would be the minimum permanent action independent of the "projects situation", which would aim to consider and ensure the integrity and realization of everyone's potential throughout life, as well as the sharing of necessary tasks that interest no one allowing a serene COHABITATION.
For example, it could be organized as follows:

- 3 hours per week of physical training: participation in a minimum of activity using our entire body (sports, dance, ...) to guarantee that we keep us fit, for example organized as follows:
  - Mobility : 1h/week of body coordination in SPACE and TIME - rhythm, dance, self-defense, breathing, singing, stretching, relaxation,
  - Power : 1h/week of muscle building (force and speed),
  - Endurance : 1h/week of cardio-training.
- 3 hours per week of intellectual training: would maintain the skills acquired over time and enrich them, for example broken down as follows:
  - Communication : 1h/week listening, language/KNOWLEDGE (world description), logics, synthesis,
  - Problem solving : 1h/week of Mathematics and applications,
  - Implementation : 1h/week of Sciences, Arts, techniques and tools.

⇨ 3 hours per week of "World inhabitant duty": sharing among all of all the necessary tasks that interest no one and that no one wants to do (emptying the trash, sort and recycle waste, clean one's neighborhood, clean the premises of common places, ...).
In the event of major events (floods, earthquakes, etc.), a "one-off" increase in the number of hours of "World inhabitant duty" may be chosen by the community to focus everyone's efforts on resolving them (to the detriment of other lower priority/NON-VITAL activities).

- 3 hours per week of free expression: free time during the week to develop our own ideas and express ourselves in the way we want, individually or in groups (reading, writing, theater, singing, music, artistic creation,...). Could be the privileged place of emergence of new concepts, to then propose them for a wider deployment (from local to global) if the interest is confirmed.

These 12 hours/week, having the role of keeping us and our environment in shape, with no need for specific skills, has a central place in our ACTION. They would only be evaluated on IMPLICATION (Ni0x), always on a limited scale, which MAX grade is to be defined according to the importance we wish to give it (here 2 points per block of 3 hours/week, and 4 points for the "World Inhabitant Duty").

Recommendations for the different ACTION domain:

ACTION would be organized into 5 main branches:

0. ADMINISTRATION (3 INSTITTUTIONS TO KNOW – TO ACT – TO HAVE MANAGEMENT)
A. PRACTICE Cohabit – Knowledge – Skills
B. MAKE
PRODUCTION of the 10 RESOURCES
C. TRANSMIT – RESEARCH
=> PROTECT Peace and Security

In all ACTION domains, several levels of PRIORITIES would be identified:

- ✓ SURVIVAL = MINIMUM level of ACTION empowering the population to maintain a minimum PRODUCTION of RESOURCES for survival, according with a minimum PRACTICE to maintain its capacities adapted to its level of development (current technology), to maintain its INFRASTRUCTURE (transportation, energy, information) and its minimum ADMINISTRATION to make it all run.
- ✓ VITAL = ACTION whose STOP instantly (= within 24 hours or a few days) endangers collective SURVIVAL.
- ✓ NON-VITAL = ACTION whose STOP does not endanger an established, healthy population.

An "instantaneous" PRIORITIZATION of ACTION would be coordinated by the TO ACT institution when a major event endangering SURVIVAL happens.

0 – Administration

The main role of the 3 INSTITUTIONS TO KNOW – TO ACT – TO HAVE, would be to maintain up to date the scaled from local to global "elected" priorities, to empower their realization by providing continuous visibility of the perenniality of the projects by updating separately, for each of the INSTITUTIONS, their identified MEASURES OF REALITY from local to global (the "dashboard").

The management of these 3 INSTITUTIONS at each level would be carried out by trained people, whose KNOWLEDGE AND CAPACITIES for objectivity and impartiality for the PERENNIALITY of a FINITE BIOSPHERE would have been validated, renewed regularly for example according to the proposed pace in the *Administration* column of the table given page 57.

Endurance and bandwidth on any kind of topic being key capacities for these coordination activities, some minimum conditions on Physical and Intellectual skill levels, as well as age, would be necessary to succeed the entry exam, for example:

- ✓ Up to 100 000 people: Age between 21 and 62 years old, Qc >1.5, right to do 3 mandates of 3 years in a lifetime.
- ✓ Between to 100 000 and 100 000 000 people: Age between 28 and 59 years old, Qc >2, need to have done at least one mandate before for a group under 100 000 people, right to do 2 mandates of 6 years in a lifetime.
- ✓ Above 100 000 000 people: Age between 36 and 56 years old, Qc >2.5, need to have done at least one mandate before for a group above 100 000 people, right to do 1 mandate of 9 years in a lifetime.

For the end of the last mandate at the latest at age 65.

Minimize the phenomenon of "staricization": DO NOT BELIEVE IN THE ONE WHO SPEAKS but seek at every moment RELEVANCE for our lives, living beings who cohabit in finite contexts.

Any responsibility that we may take during our lives does not change the fact that we are living beings similar to all living beings. BELIEVING IN someone, delegating "absolute" power to someone or let her/him take it, would therefore potentially be overwhelming them with responsibility and an inhuman expectation of exemplarity: on one hand this person could become paralyzed in a pattern of power whose he would become the prisoner; and on the other hand, human beings abdicating to this power would lose their dignity as equal and autonomous living beings.

If the first intention of a person getting involved may really be to "improve" a situation facing societal "problems", the fact remains that **these "problems" are often structural/cultural**

and require effort and transformation of everyone, and not of a single “human being” who “would be perfect” to come to power for a few years in a given region of the planet.

The separation of powers is a key to avoid this societal impasse.

In the table ranking the levels of coordination from 1000 inhabitants to 10 billion inhabitants page 57, the "hierarchy" must consequently be understood as an inverted "pyramid" compared to the traditional one of kings and empires: the more one is the coordinator of a large population, the more one is "below", the more one is at the service of a greater number of people. Therefore, the more one manages global issues in this organization, the more one must be capable of neutrality, dedication to the majority and disinterest (without putting ourself in danger and not forgetting ourself either, the bounded 1000 hours/year of availability framework is part of this protection).

Minimize conflicts of interest: The coordinators are not there to create bonds, affinities between coordinators or with the population, even if this can happen naturally; the accomplishment of their mission must be free of any attachment as much as possible. The main mission of the coordinators is to allow the realization of the choices of the populations at each level (priorities voted on during the elections), from local to global by updating all the information necessary for everyone to understand the current issues (the "dashboard").

They would not have a “public role" to play (through the media) during the exercise of their mission, nor any accumulation of mandates, to avoid any abuse of power and conflict of interest. Public communications could be made by dedicated teams.

A – Practice / C1 – Transmit

Continuous improvement to be carried out by all disciplines to hierarchize KNOWLEDGE and make their language and skills as “ergonomic” and as “intuitive” as possible.

Advances in understanding the world over the last two centuries could lead us to propose a hierarchy of KNOWLEDGE according to a structure consistent with the emerging structure of the world, its inclusions, starting from the **capacity for processing information** of the human species, included in the LIVING, included in the MATTER-ENERGY existing in SPACE-TIME; this upstream capacity could be broken down into three elementary sub-capacities:

A. The language for the expression and exchange of information (receive/meaning/send information).
B. Logic for the treatment of links between propositions.
C. Mathematics for the treatment of quantities.

Then depending on the field of application of these information processing capacities, that is to say the "specific subject, the window or prism through which we observe the world", we

would then have all the "academics disciplines". Without trying to be exhaustive here, this could give for example:

1. the description of the behavior of MATTER and ENERGY in SPACE-TIME: Physics.
    a. including all sub-branches: Thermodynamics, particles/atoms/moleculs physics,...
    b. the use of these properties to design machines: Technology.
        i. with all the specific sub-sub-branches: Mechanics, Chemistry, Electricity, Optics, Electronics, IT,...
2. the description of the functioning of LIVING: Biology.
    a. the use of this knowledge to produce food: Agriculture.
    b. the use of this knowledge to heal living beings: Medicine.
3. the description of the behaviors of living beings capable of movement ("animals"): Ethology.
4. the description of the past of the human species: History.
5. the description of the geometry, resources and occupation of “territories”: Geography.
6. the description of the structures of human societies: Sociology.
    a. the orchestration of the current society: Law, Politics.
    b. the description of exchanges between human beings: Economy.
        i. the management of the monetary tool when existing: Finance.

Besides, the history of KNOWLEDGE (epistemology) and the reward that we express to a human being for his "discoveries", could in particular be separated from the content of the KNOWLEDGE transmitted to each generation, each discipline continuously updating " its state of the art, its references", allowing us to escape from the "star" culture and to share knowledge of our world in complete EQUALITY. For example, in mathematics theorems could lose the name of the people who "discovered" them, often the fruit of a long series of research which can span centuries, added to this the inclusion of this research in potential power struggles of the moment which can erase certain contributions... notably those of women who have been erased from History for a very long time.

The theorems would then take the name of what they actually represent: for example the Pythagorean theorem could be called the "right triangle theorem", the Bolzano Weierstrass theorem could be called the "convergence theorem of bounded series" ,... etc. This would perhaps also facilitate their learning, their name explicitly expressing what they represent, rather than having to remember names which can sometimes be very far from our cultures and add a complexity of information management which has no relation to the subject matter (a reflection on simplification to be carried out by all disciplines to make their language/syntax “intuitive”).

In parallel with KNOWLEDGE, would be the SKILLS OF THE BODY. In the same way as KNOWLEDGE, a hierarchy of the **body's capacities** could be made with an initial breakdown into three elementary sub-capacities:

A. Mobility: **amplitude and precision** of body movement in SPACE and TIME.
B. Power: **speed and force** of movement.
C. Endurance: **duration** of movement at a certain power level.

These elementary capacities of the body could be linked to the different fields of KNOWLEDGE to give rise to SKILLS, potentially accompanied by TOOLS, specific to the field or transversal to all or part of the KNOWLEDGE (even if it only uses low power finger mobility, the use of computer tools for example has become a skill common to practically all disciplines - consistent because it is, par excellence, the tool that we invented for the automated processing of information and its communication over the planet and in space, therefore potentially useful to all activities), and which can evolve with the extension of KNOWLEDGE and the evolution of Technologies (“progress”).

The playful and/or artistic exploitation of these capacities of the body, in groups or individually, with artifacts (balls, rackets, skis, rollerblades, weapons, costumes, musical instruments, etc.) or without, gives rise to all sports, all dances, all music, all combat arts,... of the world. These 3 sub-capacities of movement of the body would include the ability to make the air vibrate thanks to our vocal apparatus, an innate capacity of the body used in particular for language, the use of which in much greater amplitude would be SINGING, included in MUSIC.

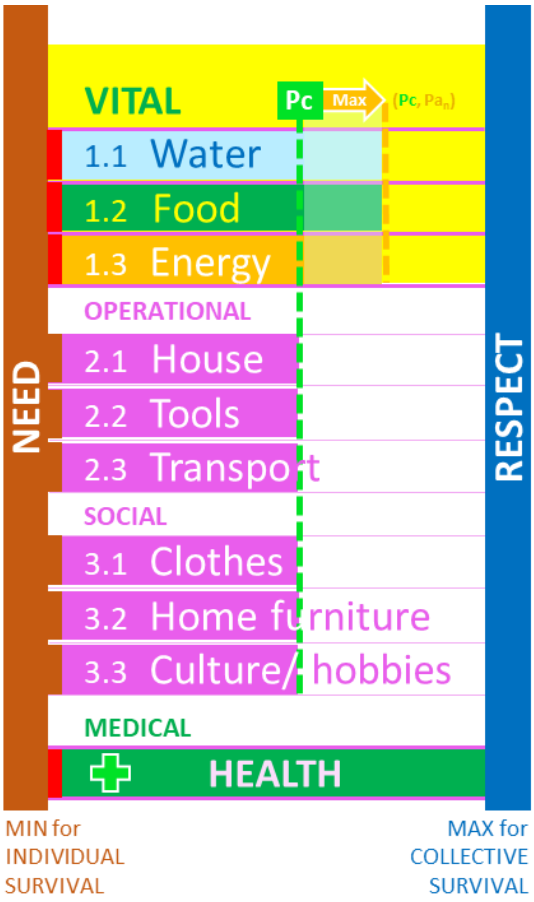
Finally, the combination of our **information processing abilities** and our **body skills**, of KNOWLEDGE and POWER, would constitute **our “intellectual” capacities** for action in the world which could be described as follows by putting all the pieces together:

- **COMMUNICATION:** listening, language, KNOWLEDGE (world description), logic, synthesis.
- **PROBLEM SOLVING:** mathematics and applications.
- **IMPLEMENTATION:** Technologies and Arts.

With the Arts which would be the potential "extrapolation" of KNOWLEDGE and BODY SKILLS, without "precise utility", but perhaps in the spirit of *"letting speak the creative source principles of the Universe which pass through us"...*

B – Make

PRODUCTIONS made by the human species would be separated into 10 categories:

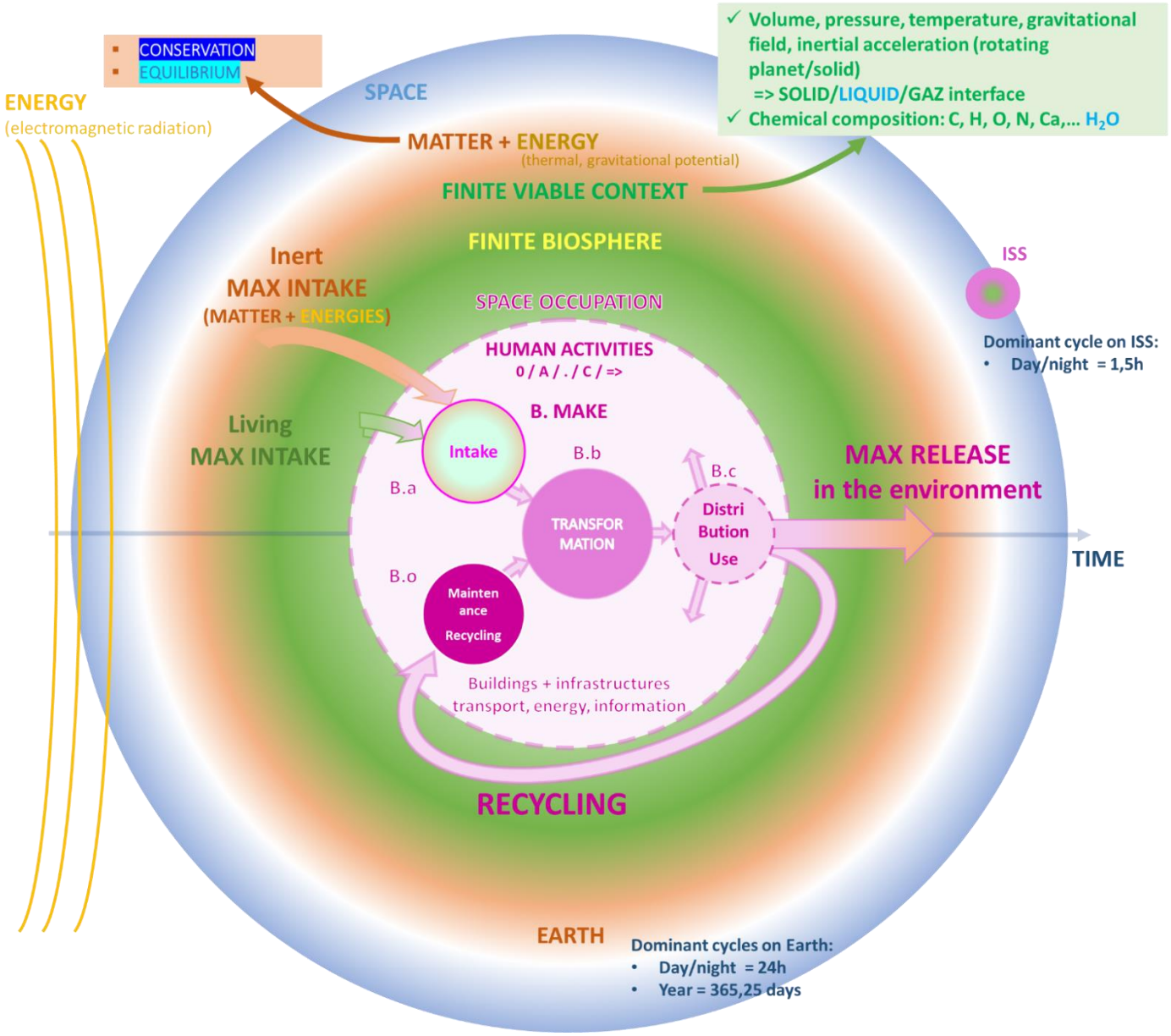


Each PRODUCTION category would necessarily have the following identical implementation phases:

- INTAKE of INERT or LIVING RESOURCES from the environment,
- TRANSFORMATION of RESOURCES into FINISHED PRODUCTS,
- DISTRIBUTION of FINISHED PRODUCTS,
- USE,
- RELEASE or RECYCLING/MAINTENANCE.

At any given time, the TO KNOW institution would have up-to-date maximum INTAKE and RELEASE values into the environment (including RELEASE during the PRODUCTION and USE phases), which would allow for real-time assessment of **the MAXIMUM QUANTITY of a given type of object that the FINITE BIOSPHERE can contain:**

RESPECT = MAX for COLLECTIVE SURVIVAL.



In all PRODUCTION domains, the levels of PRIORITIES would be identified in the same way:

- ✓ **SURVIVAL** = MINIMUM level of PRODUCTION of RESOURCES for SURVIVAL, including the maintenance of INFRASTRUCTURES (transport, energy, information) to ensure this PRODUCTION.

- ✓ **VITAL** = RESOURCES whose PRODUCTION STOP instantaneously (= within 24 hours or few days) endangers collective SURVIVAL:

1.1 WATER / 1.2 FOOD / 1.3 ENERGY

Valued at the MAX between the **Annual** or **Cumulative Participation**, allowing to "instantly" value an extremely good annual participation by giving the person more

rights to quality food and water and energy. In the event of a lower **Annual Participation**, or even zero, it is the **Cumulative Participation** that archives our participation history that gives us our VITAL level of rights TO HAVE.

HEALTH is between VITAL and NON-VITAL.

Ideally for everyone, it is a question of never needing it… **thus an INACTIVE HEALTH because of no disease nor accident would be a tremendous society success!**

Our HEALTHCARE needs are covered no matter what: no one dies from a treatable illness or accident. Benefits of comfort or quality of medical equipment can be weighted according to our CUMULATIVE PARTICIPATION and our corresponding rights to HAVE in NON-VITAL RESOURCES.

- ✓ **NON-VITAL =** RESOURCES whose PRODUCTION STOP does not endanger a healthy population.

  The CUMULATIVE PARTICIPATION would give us our NON-VITAL level of rights TO HAVE.

If the PRODUCTION of VITAL RESOURCES must never be interrupted, a society that has reached a good level of comfort for all non-VITAL RESOURCES, or even reached the **MAXIMUM QUANTITIES of a large number of objects** and has "nothing left to produce", **would be SUCCESSFUL!**

This society must not seek to produce ever more other things, or worse, be forced to do so due to its organizational structure : it must at all times RESPECT the MAXIMUM LIMITS of occupation and exploitation of the FINISHED VIABLE CONTEXT in which it exists.

If a society finds itself truly idle due to reaching its physical LIMITS, it can then focus its ACTION on TRAINING, CULTURE, IMPROVEMENT of what is already there… and RESEARCH for extending the PERENNIALITY of the LIVING in the UNIVERSE !

C2 – Research

Main research axes to pursue/launch over our century:

1. Continuously updated global institutional “Wikipedia” (managed by the Universities and National Centers for Scientific Research of the world):
   a. languages,
   b. logic,
   c. mathematics,

   d. description of the world hierarchically organized according to the constitution of the Universe: TIME – SPACE – MATTER – ENERGY – LIVING - Technology, ergonomic with popularization pages for complex subjects.
2. Finalize the stages of global automation ("Artificial Intelligence"): language, vision,... (logic, mathematics, description of the world,… already available in digital).
3. Gain a calculation scale factor of *1000 (?)…* in accuracy and speed with quantum computers.
4. Living perenniality in the Universe:
   a. appropriate this opening from a biological and societal point of view,
   b. first technological steps :
      i. 3 terrestrial linear catapults to space working on renewable energy (Hyperloop-Spinlaunch mix; one in the Andes mountain and two in the Himalayas, for example),
      ii. Anti-meteorite barrier (nuclear bombs, others…),
      iii. 2 space bases with 1000 inhabitants in Earth orbit,
      iv. 1 space base with 1000 inhabitants in lunar orbit,
      v. 3 bases/greenhouses on the Moon with 300 inhabitants,…

General remark for academic research: A problem can be well posed and a solution proposed to this problem rigorously demonstrated from a scientific point of view, without reference to any scientific source.

For example, posing and proving the Pythagorean theorem can be done by "anyone" without any reference; and the intellectual exercise will make all the more progress and will be all the more rewarding for a person, if she/he actually succeeds in doing it on her/his own, rather than reading references on the subject.

Citing sources is therefore not a way of "validating that an approach is scientific". It responds to a need to position a proposal in the current state of knowledge to specify the "intellectual property" of the proposal when it comes to fairly evaluating a work, as to identify how the work makes a new contribution or not, the objective of academic research being to advance the content of KNOWLEDGE.

As a matter of fact, it brings nothing to Mathematics today to reprove the Pythagorean theorem... and to browse references will allow researchers, especially the youngest, to arrive quickly "on the knowledge front", rather than spending a lot of time re-demonstrating how all the wheels roll.

ACTION DETAILED BREAKDOWN

"Local autonomy everywhere"

Demographic levels population minimum size* for which a region **shall be autonomous** for the issues given in the corresponding line		**TO ACT**					
		Responsiblity quotient $1<= Q_r <=2$ $Qr = 1 + 0,1*LOG_{10}(1+N)$ (**)	**0. ADMINISTRATION** Number and renewal of managers representing and coordinating the 3 powers FINITE BIOSPHERE ACTION DISTRIBUTION	**A. PRACTIVE + C.1. TRANSMIT** Cohabit - Knowledge - Skills	**B. MAKE** **PRIMARY RESOURCES** (TIME, SPACE, MATTER, ENERGY, LIVING) **B.o Maintenance and recycling**	**B.a Intake from the environment** Inert Extraction	Living Agriculture
Everybody	> 1000 people	1,3	3 people (500h/year) for 3 years	0-6 years old elementary school	Hand made tools	Shortest path Renewable Respectful of biodiversity	
	> 10 000 people	1,4	3 people (500h/year) for 3 years	6-10 years old Primary school	Bicycles Small eletronic tools		
	> 100 000 people	1,5	3 people (1000h/year) for 3 years	10-18 years old Middle and High school	Home appliances/ motorbike		
	> 1000 000 people	1,6	6 people (1000h/year) for 6 years (renewed by half every 3 years)	18-21 years old Bachelor level University	Cars		
	> 10 000 000 people	1,7	6 people (1000h/year) for 6 years (renewed by half every 3 years)	> 22 years old Master and PhD Levels University	Aircrafts		
	> 100 000 000 people	1,8	6 people (1000h/year) for 6 years (renewed by half every 3 years)		Space station		
	> 1000 000 000 people	1,9	9 people (1000h/year) for 9 years (renewed by a third every 3 years)				
	> 10 000 000 000 people	2	9 people (1000h/year) for 9 years (renewed by a third every 3 years)				
WORKING TIME TOTAL (% 1000h/year)			2%	15% (A) + 3% (C1)	12%	3%	4%
ENSERGY SPENT TOTAL (% Intake kWh)			1%	2% (A) + 1% (C1)	10%	12%	8%

kWh = ENERGY used by machines

(*) the population size is the first factor, distance and isolation of certain region with very small populations may be another factor to be considered

(**) Qr = 1 + 0,1*LOG10(1+N) = Responsibility quotient: my work, my decisions impact the activities, the environment, the daily lives of how many N people?

<table>
<tr><th colspan="5">TO ACT</th></tr>
<tr><th colspan="2">B. MAKE

B.b TRANSFORMATION
B.c DISTRIBUTION/USE
"Realisation" average size :</th><th>C.2. RESEARCH
KNOWLEDGE EXTENSION
SKILLS AND TECHNOLOGY
UPGRADE
(setting up a global institutional Wikipedia continuously updated)

Laboratories for :</th><th>=> PROTECT

PEACE
AND
SECURITY

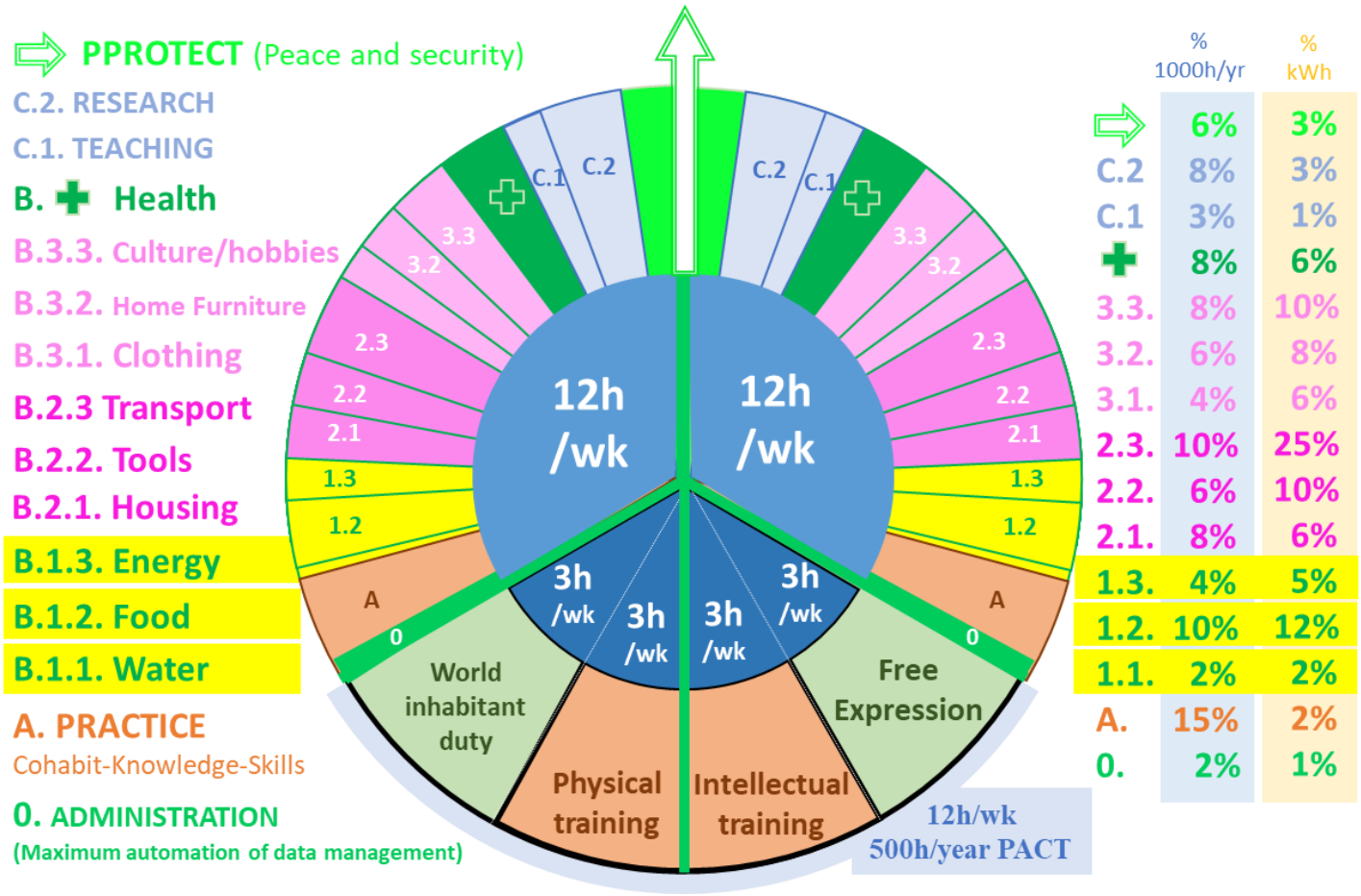
(police, army, firefighter)</th><th>RELEASE
IN THE
ENVIRONMENT
(Recycling center, cremation, etc.)</th></tr>
<tr><td rowspan="6">Buidlings

and

Infrastructures
Transport
Energies
Information</td><td></td><td rowspan="2"></td><td rowspan="2">500 people
1000h/year
+
1000 people
500h/year</td><td rowspan="6">BELOW
A MAXIMUM
LEVEL
ALLOWING
LIFE
PERENNIALITY</td></tr>
<tr><td>Food
Hand made tools</td></tr>
<tr><td>Bicycles
Small eletronic tools</td><td>Local/short term needs</td></tr>
<tr><td>Home appliances/ motorbike
Cars</td><td>Regional/ medium term needs</td><td rowspan="3"></td></tr>
<tr><td>Aircrafts</td><td rowspan="2">Global/ long term needs</td></tr>
<tr><td>Space station</td></tr>
<tr><td>15%</td><td>32%</td><td>8%</td><td>6%</td><td>2%</td></tr>
<tr><td>20%</td><td>40%</td><td>3%</td><td>3%</td><td>1%</td></tr>
</table>

OVERALL ACTION ASSESSMENT

kWh = ENERGY used by machines



	% 1000h/yr	% kWh
⇨	6%	3%
C.2	8%	3%
C.1	3%	1%
✚	8%	6%
3.3.	8%	10%
3.2.	6%	8%
3.1.	4%	6%
2.3.	10%	25%
2.2.	6%	10%
2.1.	8%	6%
1.3.	4%	5%
1.2.	10%	12%
1.1.	2%	2%
A.	15%	2%
0.	2%	1%

"MEASURE" of the REALITY of ACTION

HUMAN's ACTION corresponds concretely to ENERGY, whether the action corresponds to actual movement or information processing (intellectual work). **So the TIME of human beings spent working could be converted into ENERGY.**

If the average USEFUL POWER performed by a human being, over a 7-hour workday, is approximately 70 watts, this gives :

- an average total ENERGY output for a workday of 0.5 kWh/person/day,
- an average total ENERGY output for a 1000 working hours per year of 70kWh/person/year.

To refine the measurements, the TO ACT institution could possibly use the actual average individual power values of each person, assessed each year in the ENDURANCE category of body training.

Therefore, the MEASURE of ACTION could be an effective and homogeneous quantity of ENERGY (kWh), summing:

HUMAN ENERGY
(or LIVING energy if animals contribute to the action)
+
ENERGY used by machines

One of the primary benefits of using ENERGY (kWh) as a "cost" metric would be that it could enable much more objective TRANSPARENCY and global EQUITY:

- ⇨ **immediately, we will become aware of how rich we are from the fact that we receive a lot, but really much more, than what we actually produce as effort by participating in the activities of the world.**

As a matter of fact, while the order of magnitude of our productive ACTION per year is around 70kWh, we consume, across all sectors in Western countries, the equivalent of tens of thousands of kWh per year ! Approximately 400 to 600 times more than what we actually achieve in terms of effort, ENERGY... cf. Jean Marc Jancovici – The world without end - it is as if we had the equivalent of 400 to 600 slaves at our service, but in our modern world, these "slaves" are machines.

This should therefore allow us to be more FAIR in sharing our RESSOURCES and to be able to accept their LIMITS.

APPENDIX 1.3

TO HAVE

Since the inert materials and living beings present in the universe do not initially belong to anyone and therefore do not have an own "price", **the cost of an object** would be the sum of all the kWh (living + machines) required to:

- ✓ INTAKE inert MATTER and LIVING from the environment/RECYCLE,
- ✓ TRANSFORM these materials into finished products,
- ✓ DISTRIBUTE the finished products.

Thus this ENERGY cost (kWh) of an object could be its "price".

It could in particular be "engraved" on the object (or more simply recorded in a non-volatile memory for most objects that will have an integrated digital part), since it is a real physical measure of the INITIAL PRODUCTION that will not change, and which can therefore serve as a value reference point throughout the life of the object. It could possibly be updated/proposed iterations, if the product is improved during its lifetime (typically a house). Maintenance would only maintain the quality of the object and therefore its level of "value".

Besides, with this organizational structure, **the MAXIMUM QUANTITY of a given type of object that the FINITE BIOSPHERE can contain would be limited upstream of PRODUCTION (RESPECT)**, thanks to the continuous evaluation of the MAXIMUM of SPACE occupation, of INTAKE and of RELEASE in the FINITE BIOSPHERE:

- ⇨ **It would therefore no longer be up to the "consumer" at the end of the chain to bear the (**overwhelming**) responsibility of having global visibility of the world to make the right choice of product when shopping; if an object is available for "sale", it is because it would respect the planetary limits.**

The TO HAVE institution would therefore have visibility on the overall volumes produced in each $Prod_{x.y}$ domain expressed in kWh (volumes that would respect upstream planetary limits):

1.1 WATER
1.2 FOOD
1.3 ENERGY
2.1 – 3.3 NON-VITAL RESOURCES

The populations could then vote for a MINIMUM threshold expressed in kWh in each main area, each individual i would have a right to HAVE above this MINIMUM proportional to their Pc_i Participation:

$$\text{TO HAVE}_{x.y} = \text{MIN}_{x.y} + Pc_i \times \Delta\text{Prod}_{x.y}$$

so that the sum of the rights $\text{TO HAVE}_{x.y}$ over the number of inhabitants *H* is equal to the total production $\text{Prod}_{x.y}$:

$$\text{Prod}_{x.y} = \sum_H \text{TO HAVE}_{x.y} = H \times \text{MIN}_{x.y} + (\sum_H Pc_i)\ \Delta\text{Prod}_{x.y}$$

For housing specifically, in addition to this right TO HAVE calculated in kWh of housing manufacturing cost, a second VOLUME criteria (in m3) could be calculated in the same way, with MIN and MAX voted bounds, to limit our rights to HAVE in housing so that it respects the SPACE OCCUPATION upstream planetary LIMIT.

We would thus have at any given moment our estimate of our rights TO HAVE in each domain, expressed in kWh (and in m3 for housing), always with the FREEDOM TO CHOOSE what we wish to consume or own based on our personal criteria:

- Desire,
- Utility/Functions,
- Performance,
- Lifespan,
- Social esteem: aesthetic, symbolic, sentimental, rarity…

The idea of gathering NON-VITAL RESOURCES (operational and social) into a common right TO HAVE would precisely allow everyone to "freely" live their lives as they wish:

- ✓ If someone with a relatively high level of Participation grants a right TO HAVE in kWh slightly higher than a Porsche, and wants to have it by agreeing to live in a 25 m² apartment, thus not exceeding their total right to have, this should be possible (just as we personaly manage our monetary counter in 2020 Gregorian calendar).

“Free exchange”:

The question of "free trade" ultimately only poses the question of PROPERTY: "whose thing does this belong to?"

Indeed, once PRODUCTION is carried out with respect for what it can take and reject in the inert and living environment, once human beings have perceived from PRODUCTION their rights to HAVE proportionate to their PARTICIPATION, the freedom to exchange between individuals what they have received remains completely possible and “free”.

However, for major assets exchange (car, house, etc.), this “freedom” would be “protected” by mediators from the TO HAVE institution to establish equity equivalences, and avoid errors or abuse of power which would penalize one of the two parties, or worse which would endanger its survival.

In particular, exchanges would primarily take place within the same RESOURCE to be shared:

1.2 Food: apples for pears, eggs for a chicken, etc.

2.1 House: moving would be a simple, almost cost-free (automated), procedure of renaming the "owner", i.e. the exclusive occupant of the premises. The Cumulative Participation would directly indicate the “level” (surface, garden, facilities,etc) of real estate that could be accessed.

2.2 Tools: a rake for a spade, a smartphone for a PC, etc.

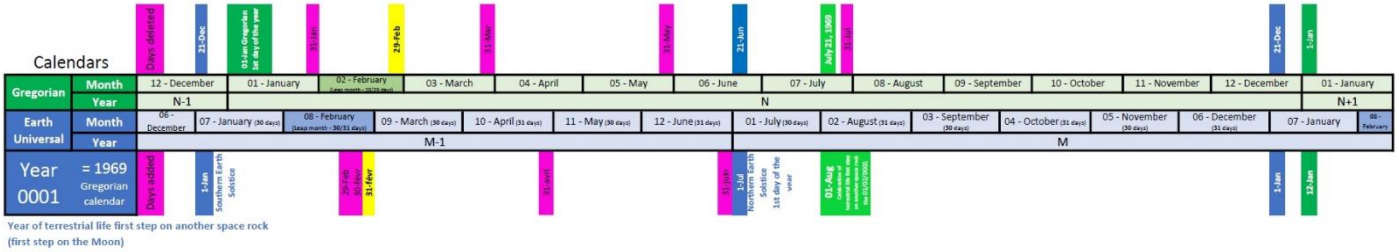
3.3 Culture & leisure: cinema tickets for entries to an amusement park.

Conversely, for example, it would generally not be possible to exchange:

- one's week food for a bicycle,
- one's day drinking water for a movie ticket,
- one’s house for a tennis court,
- … etc

APPENDIX 2 - Universal Terrestrial Calendar

In order to be precisely synchronized with all the cycles of the nearby Universe, a Universal Terrestrial Calendar could be set up as follow:



- Annual rhythm synchronized with the rotation around the sun:
    - Shift of the entire calendar so that January 1 coincides with the Earth Southern solstice, December 21 of the Gregorian calendar.
- 12 months simply alternating between 30 days and 31 days = 366 days per year (no more of the very strange rule of counting on your knuckles to know the positioning of the months at 30 and 31 days); the february month being reduced by 1 day (from 31 to 30 days) 3 years out of 4, this month only being equal to 31 days in leap years due to the fact that the Earth goes around the sun in 365.25 days.
- In order to be in harmony with the pace of a large part of the planet (the northern hemisphere containing 90% of the world population, two thirds of the land surface), the new year could be chosen to be the northern soltice, meaning July 1st of the Universal Terrestrial calendar (June 21st of the Gregorian calendar), allowing to synchronize the civil calendar and school calendar for a lot of nations : the nations of the northern hemisphere would start with the summer vacation on July 1st with the New Year celebration.
- Year 1 could be shifted to the year of a major event in the history of terrestrial life over the last few millennia: the first step of terrestrial life on another space rock, the first step on the Moon the 21st of july 1969 Gregorian Calendar; the 21st of june 1969 Gregorian calendar = 21/06/1969 G. cal. would become the 1st of July of year 1 Universal Terrestrial Calendar = 01/01/0001 U. T. cal.
    - 01-juil U.T. cal. = Earth Northern solstice: Celebration of the LIVING and its mystery - celebration of all the arts - NEW YEAR (21st of June Gregorian calendar)
    - 01-janv U.T. cal. = Earth Southern solstice: celebration of the sun, the stars, the mystery of the origins of the Universe : TIME - SPACE - MATTER – ENERGY (21st of Decembrer Gregorian calendar)
    - August 1st of the Universal Terrestrial Calendar could become the Annual International Celebration for the Living Perenniality commemorating this date of 21/07/1969 cal. G. = 01/02/0001 cal. U. T.

CALENDARS

www.peacenlive.com proposition

Gregorian				Terrestrial Universal			
Days/year	Day	Month	Year	Day	Month	Year	Days/year
335	1-Dec	12 December	N-1	12-Dec	06 December	M-1	164
336	2-Dec			13-Dec			165
337	3-Dec			14-Dec			166
338	4-Dec			15-Dec			167
339	5-Dec			16-Dec			168
340	6-Dec			17-Dec			169
341	7-Dec			18-Dec			170
342	8-Dec			19-Dec			171
343	9-Dec			20-Dec			172
344	10-Dec			21-Dec			173
345	11-Dec			22-Dec			174
346	12-Dec			23-Dec			175
347	13-Dec			24-Dec			176
348	14-Dec			25-Dec			177
349	15-Dec			26-Dec			178
350	16-Dec			27-Dec			179
351	17-Dec			28-Dec			180
352	18-Dec			29-Dec			181
353	19-Dec			30-Dec			182
354	20-Dec			31-Dec			183
355	**21-Dec**			**1-Jan**	07 January		**184**
356	22-Dec			2-Jan			185
357	23-Dec			3-Jan			186
358	24-Dec			4-Jan			187
359	25-Dec			5-Jan			188
360	26-Dec			6-Jan			189
361	27-Dec			7-Jan			190
362	28-Dec			8-Jan			191
363	29-Dec			9-Jan			192
364	30-Dec			10-Jan			193
365	31-Dec			11-Jan			194
1	**1-Jan**	01 January	N	**12-Jan**			**195**
2	2-Jan			13-Jan			196
3	3-Jan			14-Jan			197
4	4-Jan			15-Jan			198
5	5-Jan			16-Jan			199
6	6-Jan			17-Jan			200
7	7-Jan			18-Jan			201
8	8-Jan			19-Jan			202
9	9-Jan			20-Jan			203
10	10-Jan			21-Jan			204
11	11-Jan			22-Jan			205
12	12-Jan			23-Jan			206
13	13-Jan			24-Jan			207
14	14-Jan			25-Jan			208
15	15-Jan			26-Jan			209
16	16-Jan			27-Jan			210
17	17-Jan			28-Jan			211
18	18-Jan			29-Jan			212
19	19-Jan			30-Jan			213
20	20-Jan			1-Feb	08 February (Leap month)		214
21	21-Jan			2-Feb			215
22	22-Jan			3-Feb			216
23	23-Jan			4-Feb			217
24	24-Jan			5-Feb			218
25	25-Jan			6-Feb			219
26	26-Jan			7-Feb			220
27	27-Jan			8-Feb			221
28	28-Jan			9-Feb			222
29	29-Jan			10-Feb			223
30	30-Jan			11-Feb			224
31	31-Jan			12-Feb			225
32	1-Feb	02 February (Leap month)		13-Feb			226
33	2-Feb			14-Feb			227
34	3-Feb			15-Feb			228
35	4-Feb			16-Feb			229
36	5-Feb			17-Feb			230
37	6-Feb			18-Feb			231
38	7-Feb			19-Feb			232
39	8-Feb			20-Feb			233
40	9-Feb			21-Feb			234
41	10-Feb			22-Feb			235
42	11-Feb			23-Feb			236
43	12-Feb			24-Feb			237
44	13-Feb			25-Feb			238
45	14-Feb			26-Feb			239

46	15-Feb			27-Feb		240
47	16-Feb			28-Feb		241
48	17-Feb			29-Feb		242
49	18-Feb			30-févr		243
50	19-Feb			**31-févr**		**244**
51	20-Feb			1-Mar		245
52	21-Feb			2-Mar		246
53	22-Feb			3-Mar		247
54	23-Feb			4-Mar		248
55	24-Feb			5-Mar		249
56	25-Feb			6-Mar		250
57	26-Feb			7-Mar		251
58	27-Feb			8-Mar		252
59	28-Feb			9-Mar		253
60	**29-Feb**			10-Mar		254
61	1-Mar			11-Mar		255
62	2-Mar			12-Mar		256
63	3-Mar			13-Mar		257
64	4-Mar			14-Mar	09 March	258
65	5-Mar			15-Mar		259
66	6-Mar			16-Mar		260
67	7-Mar			17-Mar		261
68	8-Mar			18-Mar		262
69	9-Mar			19-Mar		263
70	10-Mar			20-Mar		264
71	11-Mar			21-Mar		265
72	12-Mar			22-Mar		266
73	13-Mar			23-Mar		267
74	14-Mar			24-Mar		268
75	15-Mar	03 March		25-Mar		269
76	16-Mar			26-Mar		270
77	17-Mar			27-Mar		271
78	18-Mar			28-Mar		272
79	19-Mar			29-Mar		273
80	20-Mar			30-Mar		274
81	21-Mar			1-Apr		275
82	22-Mar			2-Apr		276
83	23-Mar			3-Apr		277
84	24-Mar			4-Apr		278
85	25-Mar			5-Apr		279
86	26-Mar			6-Apr		280
87	27-Mar			7-Apr		281
88	28-Mar			8-Apr		282
89	29-Mar			9-Apr		283
90	30-Mar			10-Apr		284
91	31-Mar			11-Apr		285
92	1-Apr			12-Apr		286
93	2-Apr			13-Apr		287
94	3-Apr			14-Apr		288
95	4-Apr			15-Apr	10 April	289
96	5-Apr			16-Apr		290
97	6-Apr			17-Apr		291
98	7-Apr			18-Apr		292
99	8-Apr			19-Apr		293
100	9-Apr			20-Apr		294
101	10-Apr			21-Apr		295
102	11-Apr			22-Apr		296
103	12-Apr		N	23-Apr		297
104	13-Apr			24-Apr		298
105	14-Apr			25-Apr		299
106	15-Apr	04 April		26-Apr		300
107	16-Apr			27-Apr		301
108	17-Apr			28-Apr		302
109	18-Apr			29-Apr		303
110	19-Apr			30-Apr		304
111	20-Apr			31-avrl		305
112	21-Apr			1-May		306
113	22-Apr			2-May		307
114	23-Apr			3-May		308
115	24-Apr			4-May		309
116	25-Apr			5-May		310
117	26-Apr			6-May		311
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119	28-Apr			8-May		313
120	29-Apr			9-May		314
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122	1-May			11-May		316
123	2-May			12-May		317
124	3-May			13-May		318
125	4-May			14-May		319
126	5-May	05 May		15-May		320
127	6-May			16-May		321
128	7-May			17-May		322
129	8-May			18-May		323
130	9-May			19-May		324
131	10-May			20-May		325
132	11-May			21-May		326

133	12-May			22-May			327
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135	14-May			24-May			329
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139	18-May			28-May			333
140	19-May			29-May			334
141	20-May			30-May			335
142	21-May			1-Jun			336
143	22-May			2-Jun			337
144	23-May			3-Jun			338
145	24-May			4-Jun			339
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157	5-Jun			16-Jun			351
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162	10-Jun			21-Jun			356
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164	12-Jun			23-Jun			358
165	13-Jun			24-Jun			359
166	14-Jun			25-Jun			360
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168	16-Jun			27-Jun			362
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170	18-Jun			29-Jun			364
171	19-Jun			30-Jun			365
172	20-Jun			31-juin			**366**
173	**21-Jun**			**1-Jul**			1
174	22-Jun			2-Jul			2
175	23-Jun			3-Jul			3
176	24-Jun			4-Jul			4
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195	13-Jul			23-Jul			23
196	14-Jul			24-Jul			24
197	15-Jul			25-Jul			25
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213	31-Jul			11-Aug			41
214	1-Aug			12-Aug			42
215	2-Aug			13-Aug			43
216	3-Aug			14-Aug			44
217	4-Aug			15-Aug			45
218	5-Aug			16-Aug			46
219	6-Aug			17-Aug			47
220	7-Aug			18-Aug			48

06 June

07 July

08 August

N

12 June

01 July

02 August

M

M

221	8-Aug			19-Aug			49
222	9-Aug			20-Aug			50
223	10-Aug			21-Aug			51
224	11-Aug			22-Aug			52
225	12-Aug			23-Aug			53
226	13-Aug			24-Aug			54
227	14-Aug			25-Aug			55
228	15-Aug			26-Aug			56
229	16-Aug			27-Aug			57
230	17-Aug			28-Aug			58
231	18-Aug			29-Aug			59
232	19-Aug			30-Aug			60
233	20-Aug			31-Aug			61
234	21-Aug			1-Sep			62
235	22-Aug			2-Sep			63
236	23-Aug			3-Sep			64
237	24-Aug			4-Sep			65
238	25-Aug			5-Sep			66
239	26-Aug			6-Sep			67
240	27-Aug			7-Sep			68
241	28-Aug			8-Sep			69
242	29-Aug			9-Sep			70
243	30-Aug			10-Sep			71
244	31-Aug			11-Sep			72
245	1-Sep			12-Sep			73
246	2-Sep			13-Sep			74
247	3-Sep			14-Sep			75
248	4-Sep			15-Sep			76
249	5-Sep			16-Sep			77
250	6-Sep			17-Sep			78
251	7-Sep			18-Sep			79
252	8-Sep			19-Sep			80
253	9-Sep			20-Sep			81
254	10-Sep			21-Sep			82
255	11-Sep			22-Sep			83
256	12-Sep			23-Sep			84
257	13-Sep			24-Sep			85
258	14-Sep			25-Sep			86
259	15-Sep			26-Sep			87
260	16-Sep			27-Sep			88
261	17-Sep			28-Sep			89
262	18-Sep			29-Sep			90
263	19-Sep			30-Sep			91
264	20-Sep			1-Oct			92
265	21-Sep			2-Oct			93
266	22-Sep			3-Oct			94
267	23-Sep			4-Oct			95
268	24-Sep			5-Oct			96
269	25-Sep			6-Oct			97
270	26-Sep			7-Oct			98
271	27-Sep			8-Oct			99
272	28-Sep			9-Oct			100
273	29-Sep			10-Oct			101
274	30-Sep			11-Oct			102
275	1-Oct			12-Oct			103
276	2-Oct			13-Oct			104
277	3-Oct			14-Oct			105
278	4-Oct			15-Oct			106
279	5-Oct			16-Oct			107
280	6-Oct			17-Oct			108
281	7-Oct			18-Oct			109
282	8-Oct			19-Oct			110
283	9-Oct			20-Oct			111
284	10-Oct			21-Oct			112
285	11-Oct			22-Oct			113
286	12-Oct			23-Oct			114
287	13-Oct			24-Oct			115
288	14-Oct			25-Oct			116
289	15-Oct			26-Oct			117
290	16-Oct			27-Oct			118
291	17-Oct			28-Oct			119
292	18-Oct			29-Oct			120
293	19-Oct			30-Oct			121
294	20-Oct			31-Oct			122
295	21-Oct			1-Nov			123
296	22-Oct			2-Nov			124
297	23-Oct			3-Nov			125
298	24-Oct			4-Nov			126
299	25-Oct			5-Nov			127
300	26-Oct			6-Nov			128
301	27-Oct			7-Nov			129
302	28-Oct			8-Nov			130
303	29-Oct			9-Nov			131
304	30-Oct			10-Nov			132
305	31-Oct			11-Nov			133
306	1-Nov			12-Nov			134
307	2-Nov			13-Nov			135
308	3-Nov			14-Nov			136
309	4-Nov			15-Nov			137

09 September

10 October

03 September

04 October

05 November

310	5-Nov	11 November	N	16-Nov		M	138
311	6-Nov			17-Nov			139
312	7-Nov			18-Nov			140
313	8-Nov			19-Nov			141
314	9-Nov			20-Nov			142
315	10-Nov			21-Nov			143
316	11-Nov			22-Nov			144
317	12-Nov			23-Nov			145
318	13-Nov			24-Nov			146
319	14-Nov			25-Nov			147
320	15-Nov			26-Nov			148
321	16-Nov			27-Nov			149
322	17-Nov			28-Nov			150
323	18-Nov			29-Nov			151
324	19-Nov			30-Nov			152
325	20-Nov			1-Dec	06 December		153
326	21-Nov			2-Dec			154
327	22-Nov			3-Dec			155
328	23-Nov			4-Dec			156
329	24-Nov			5-Dec			157
330	25-Nov			6-Dec			158
331	26-Nov			7-Dec			159
332	27-Nov			8-Dec			160
333	28-Nov			9-Dec			161
334	29-Nov			10-Dec			162
335	30-Nov			11-Dec			163
336	1-Dec	12 December		12-Dec			164
337	2-Dec			13-Dec			165
338	3-Dec			14-Dec			166
339	4-Dec			15-Dec			167
340	5-Dec			16-Dec			168
341	6-Dec			17-Dec			169
342	7-Dec			18-Dec			170
343	8-Dec			19-Dec			171
344	9-Dec			20-Dec			172
345	10-Dec			21-Dec			173
346	11-Dec			22-Dec			174
347	12-Dec			23-Dec			175
348	13-Dec			24-Dec			176
349	14-Dec			25-Dec			177
350	15-Dec			26-Dec			178
351	16-Dec			27-Dec			179
352	17-Dec			28-Dec			180
353	18-Dec			29-Dec			181
354	19-Dec			30-Dec			182
355	20-Dec			31-Dec			183
356	**21-Dec**			**1-Jan**			**184**
357	22-Dec			2-Jan			185
358	23-Dec			3-Jan			186
359	24-Dec			4-Jan			187
360	25-Dec			5-Jan			188
361	26-Dec			6-Jan			189
362	27-Dec			7-Jan			190
363	28-Dec			8-Jan			191
364	29-Dec			9-Jan			192
365	30-Dec			10-Jan			193
366	31-Dec			11-Jan			194
1	1-Jan	01 January	N+1	**12-Jan**	07 January		**195**
2	2-Jan			13-Jan			196
3	3-Jan			14-Jan			197
4	4-Jan			15-Jan			198
5	5-Jan			16-Jan			199
6	6-Jan			17-Jan			200
7	7-Jan			18-Jan			201
8	8-Jan			19-Jan			202
9	9-Jan			20-Jan			203
10	10-Jan			21-Jan			204
11	11-Jan			22-Jan			205
12	12-Jan			23-Jan			206
13	13-Jan			24-Jan			207
14	14-Jan			25-Jan			208
15	15-Jan			26-Jan			209
16	16-Jan			27-Jan			210
17	17-Jan			28-Jan			211
18	18-Jan			29-Jan			212
19	19-Jan			30-Jan			213
20	20-Jan			1-Feb	08 February (leap month)		214
21	21-Jan			2-Feb			215
22	22-Jan			3-Feb			216
23	23-Jan			4-Feb			217
24	24-Jan			5-Feb			218
25	25-Jan			6-Feb			219
26	26-Jan			7-Feb			220
27	27-Jan			8-Feb			221
28	28-Jan			9-Feb			222
29	29-Jan			10-Feb			223
30	30-Jan			11-Feb			224
31	31-Jan			12-Feb			225

1-Jan	**Earth Southern solstice: celebration of the sun, the stars, the mystery of the origins of the Universe : TIME - SPACE - MATTER - ENERGY** (21st of Decembrer Gregorian calendar)
1-Jul	**Earth Northern solstice: NEW YEAR celebration - Celebration of the LIVING and its mystery - celebration of all the arts** (21st of June Gregorian calendar)
1-Aug	**Celebration of the LIVING PERENNIALITY in the Universe: Celebration of the first step of terrestrial life on another space rock carried out on 01/02/0001** (21/07/1969 Gregorian calendar)

Gregorian calendar years (N)	Universal Terrestrial calendar years (M) (the 21st of june of year N cal. G)
1920	-49
1921	-48
1922	-47
1923	-46
1924	-45
1925	-44
1926	-43
1927	-42
1928	-41
1929	-40
1930	-39
1931	-38
1932	-37
1933	-36
1934	-35
1935	-34
1936	-33
1937	-32
1938	-31
1939	-30
1940	-29
1941	-28
1942	-27
1943	-26
1944	-25
1945	-24
1946	-23
1947	-22
1948	-21
1949	-20
1950	-19
1951	-18
1952	-17
1953	-16
1954	-15
1955	-14
1956	-13
1957	-12
1958	-11
1959	-10
1960	-9
1961	-8
1962	-7
1963	-6
1964	-5
1965	-4
1966	-3
1967	-2
1968	-1

Gregorian calendar years (N)	Universal Terrestrial calendar years (M) (the 21st of june of year N cal. G)
1969	1
1970	2
1971	3
1972	4
1973	5
1974	6
1975	7
1976	8
1977	9
1978	10
1979	11
1980	12
1981	13
1982	14
1983	15
1984	16
1985	17
1986	18
1987	19
1988	20
1989	21
1990	22
1991	23
1992	24
1993	25
1994	26
1995	27
1996	28
1997	29
1998	30
1999	31
2000	32
2001	33
2002	34
2003	35
2004	36
2005	37
2006	38
2007	39
2008	40
2009	41
2010	42
2011	43
2012	44
2013	45
2014	46
2015	47
2016	48
2017	49

Gregorian calendar years (N)	Universal Terrestrial calendar years (M) (the 21st of june of year N cal. G)
2018	50
2019	51
2020	52
2021	53
2022	54
2023	55
2024	56
2025	57
2026	58
2027	59
2028	60
2029	61
2030	62
2031	63
2032	64
2033	65
2034	66
2035	67
2036	68
2037	69
2038	70
2039	71
2040	72
2041	73
2042	74
2043	75
2044	76
2045	77
2046	78
2047	79
2048	80
2049	81
2050	82
2051	83
2052	84
2053	85
2054	86
2055	87
2056	88
2057	89
2058	90
2059	91
2060	92
2061	93
2062	94
2063	95
2064	96
2065	97
2066	98

Gregorian calendar years (N)	Universal Terrestrial calendar years (M) (the 21st of june of year N cal. G)
2067	99
2068	100
2069	101
2070	102
2071	103
2072	104
2073	105
2074	106
2075	107
2076	108
2077	109
2078	110
2079	111
2080	112
2081	113
2082	114
2083	115
2084	116
2085	117
2086	118
2087	119
2088	120
2089	121
2090	122
2091	123
2092	124
2093	125
2094	126
2095	127
2096	128
2097	129
2098	130
2099	131
2100	132
2101	133
2102	134
2103	135
2104	136
2105	137
2106	138
2107	139
2108	140
2109	141
2110	142
2111	143
2112	144
2113	145
2114	146
2115	147