

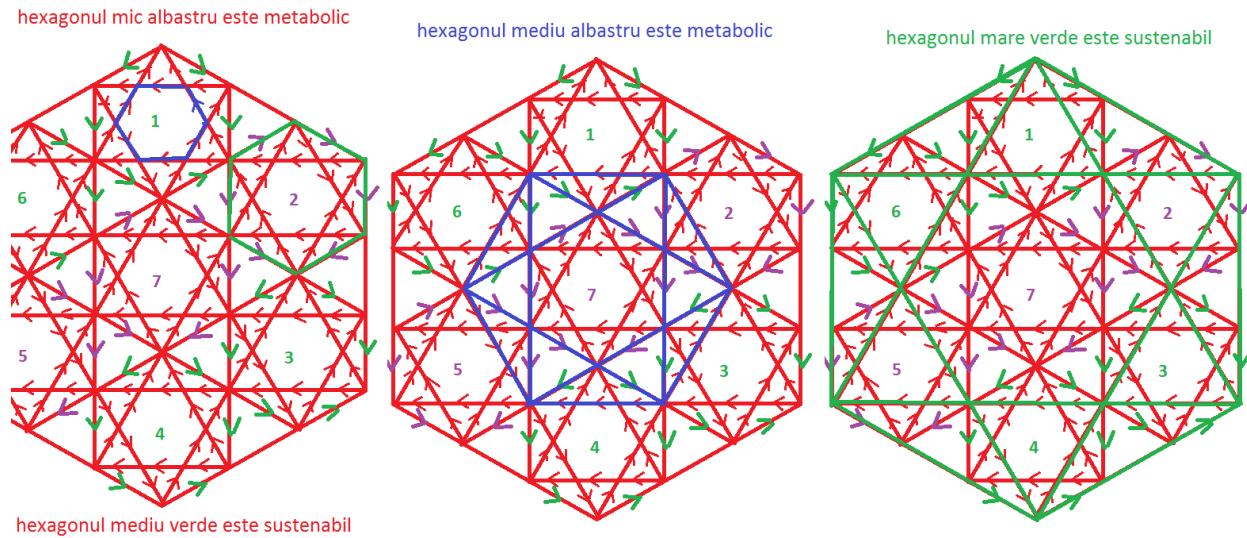
## 46. INTRODUCTION TO COHERENT SEMANTICS OF ALGEBRAIC FRACTALS

### SUSTAINABILITY AND METABOLISM

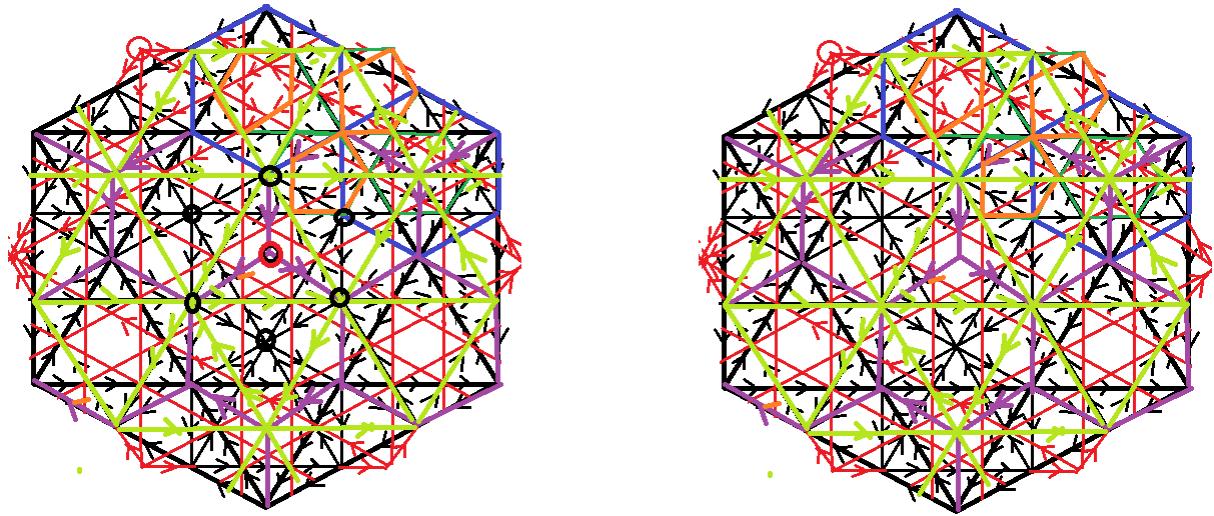
The typologies of sustainable and metabolic hexagons that will be presented below may have the same types of approaches, formal through schemes or operations, or informal through semantic content. In the same way, the formal approach can be viewed from the perspective of operations (cycles or commutative diagrams) while the informal approach can be done using the semantics of information run in vectors or nodes.

#### The 8 levels

For a correct understanding of the 8 levels it is necessary to have the following basic notions: the sustainable hexagon and the metabolic one are generated mutually so:



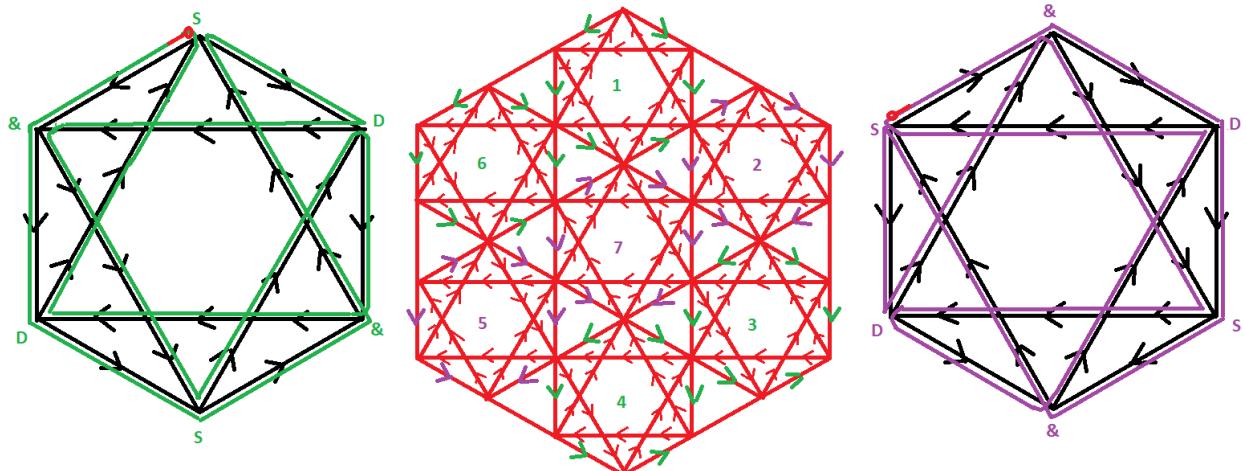
Level 1 is of the hexagons with contour and sustainable content that are glued to the edges



The purple hexagon network belongs to level 1

Level 2 has the same granulation and is made up of sustainable hexagons connected on the tips.

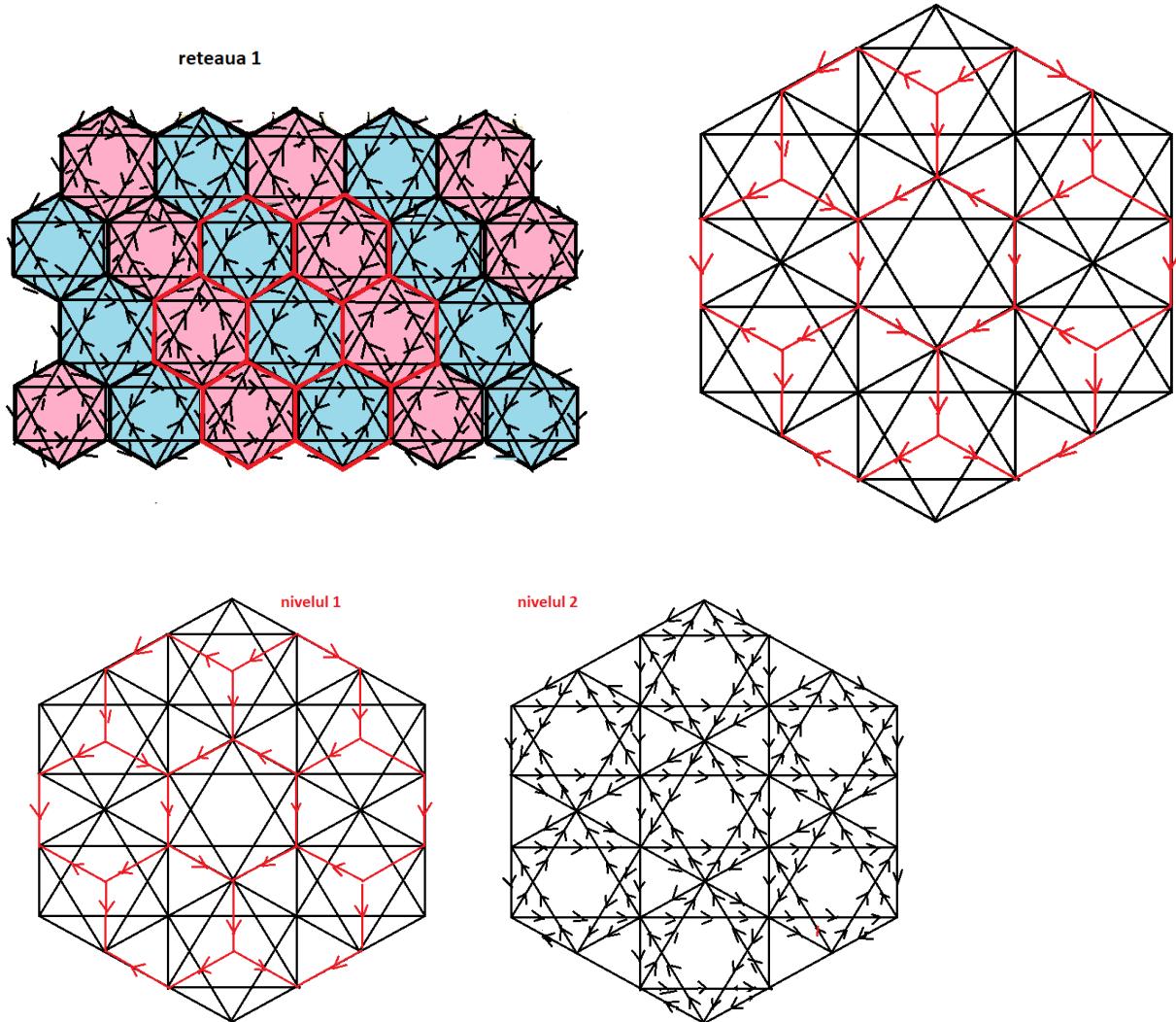
The main property of level 1 is the support of the informational content of a node by the surrounding nodes placed circularly around the center of the hexagon.

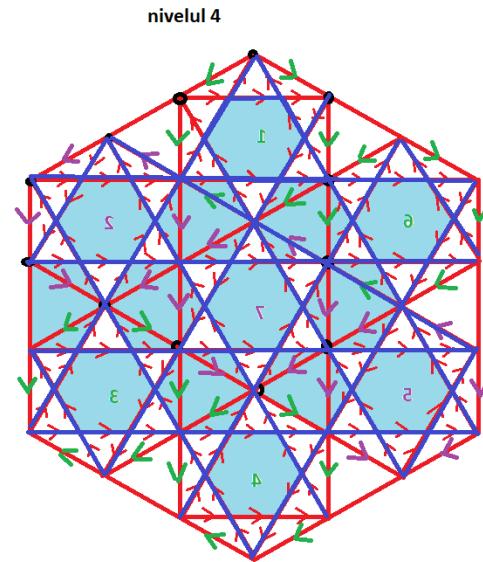
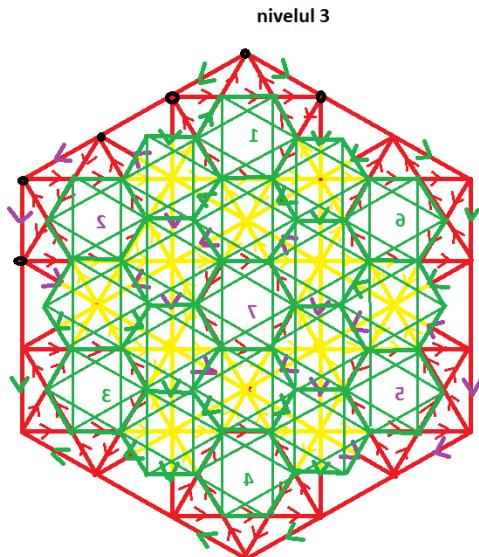


Network 2 with the same granulation level as network 1, of sustainable hexagons connected on the tips.

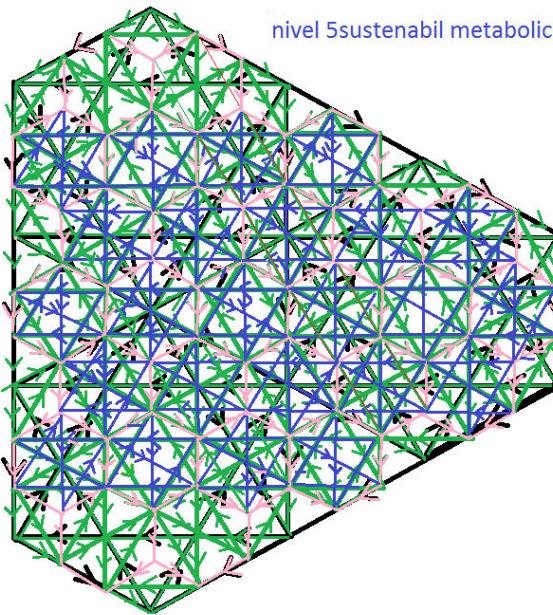
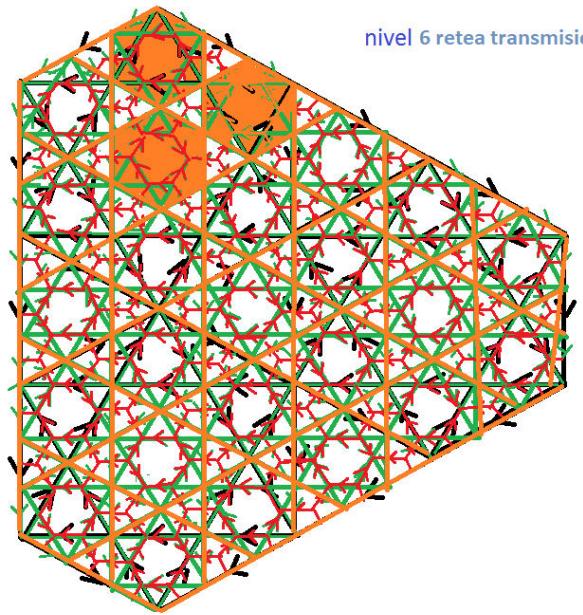
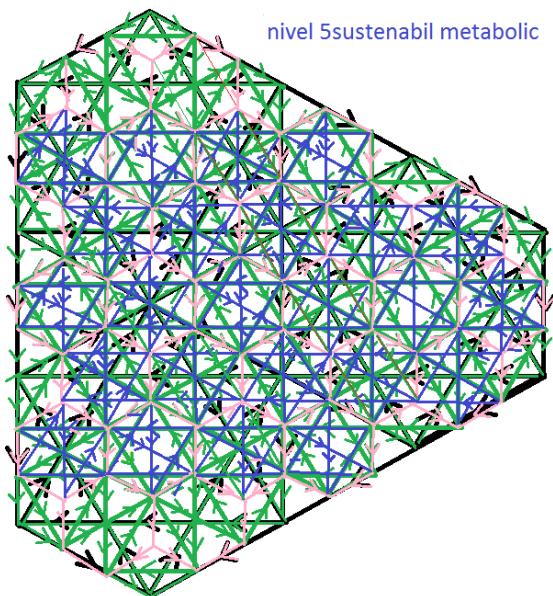
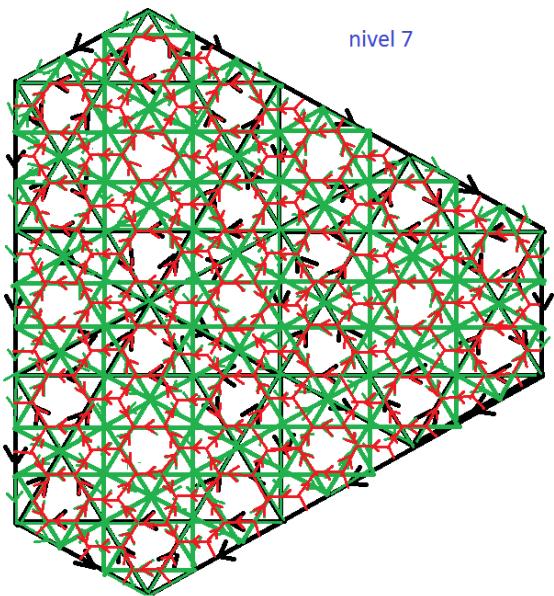
The main property of type 2 networks is the unstoppable information flow throughout the network.

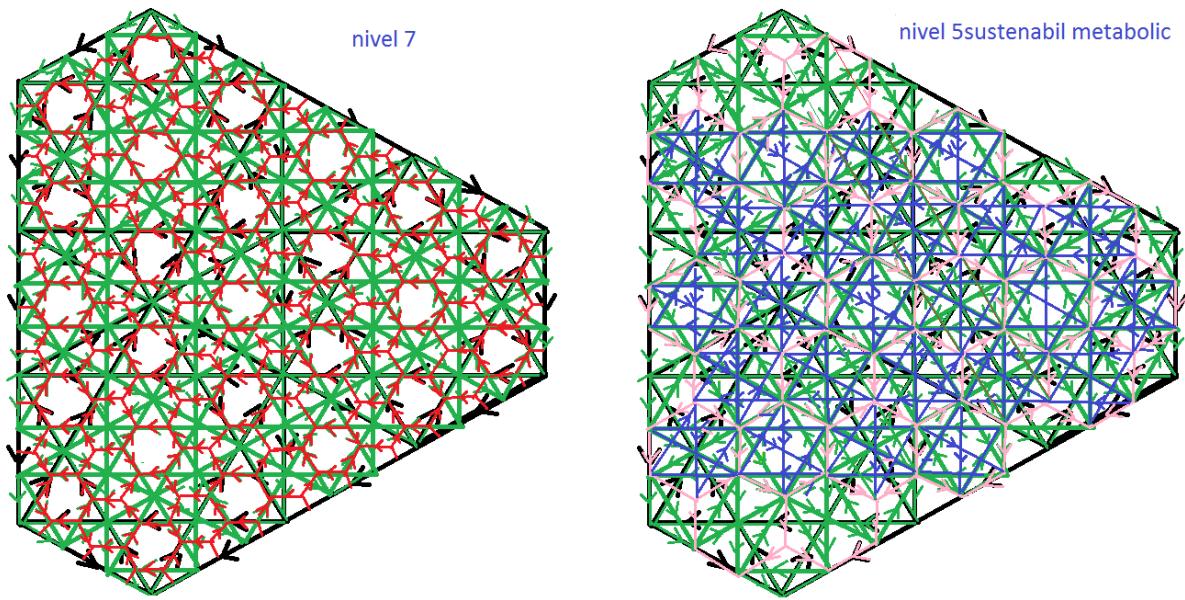
Level 3 has an immediately lower granulation than levels 1 and 2 .. the difference is that it consists of metabolic type hexagons connected on the edges the metabolic hexagons placed in the network connected on the edges or in the network connected on the tips will be presented below:



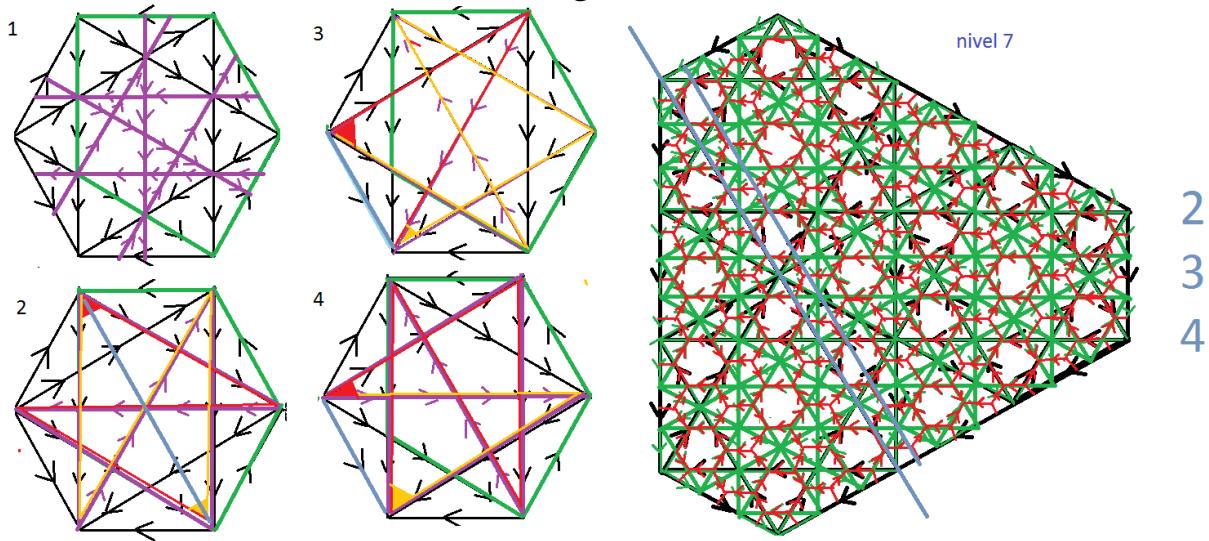


Levels 5 and 6 will be compatible with the previous levels without changing the meaning of the vectors only if the feedback is introduced into their structure.

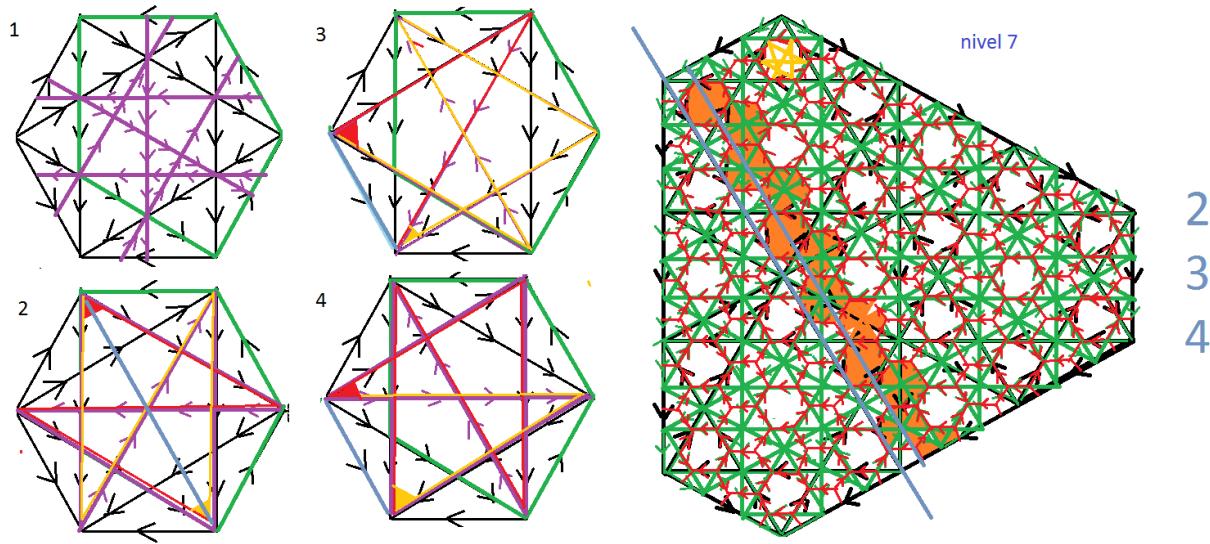




Levels 7 and 8 to remain consistent with previous levels will require the introduction of partial feedbacks that are commutative diagrams that organize the network space in another way allowing for alternative manifestations and weights in flows.



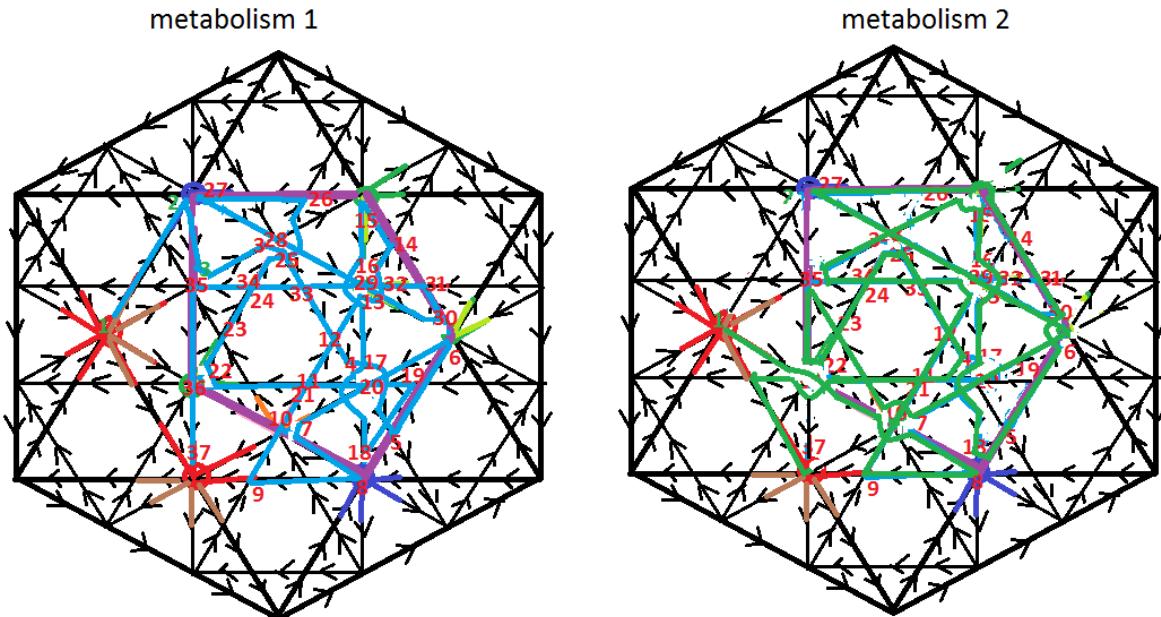
Types of semifeedbacks and organizational lines

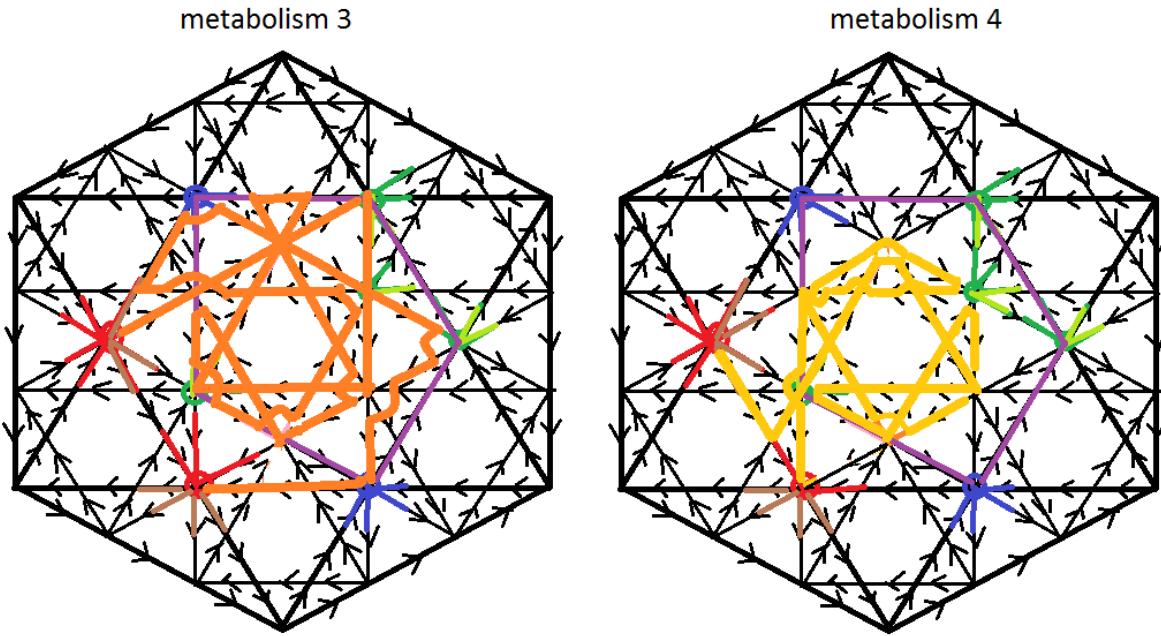


### *Intrication of semifeedbacks*

The additional properties of the game between the two types of sustainable or metabolic hexagons posted in the network on the ends or on the edges, are multiple and are related to layer substructures.

Some of these are found in the initiatory paths that respect the pentagonal cycles of the hexagons.





These roads are individualized allowing the development of different working strategies in finite conditions on levels 7 and 8.

The number of levels of analysis can increase, at each level of granulation appearing level-specific properties both on the network of hexagons glued on the edges and on the network of hexagons connected on the tips. At each granulation level and at each significant network type in analyzing the properties will be:

- cycles with a minimum of three segments, in particular with five segments;
- commutative diagrams internal to hexagons and extensible on networks with systemic properties;
- feedback cycles or commutative semifeedback diagrams;
- initiatory paths connecting all nodes or part of nodes in a hexagon or a pentagon with a cyclic contour inscribed in a hexagon;
- the senses of the arrows leaving a node or reaching a node;

- the symmetries and the flat distribution of the nodes with the same structure;

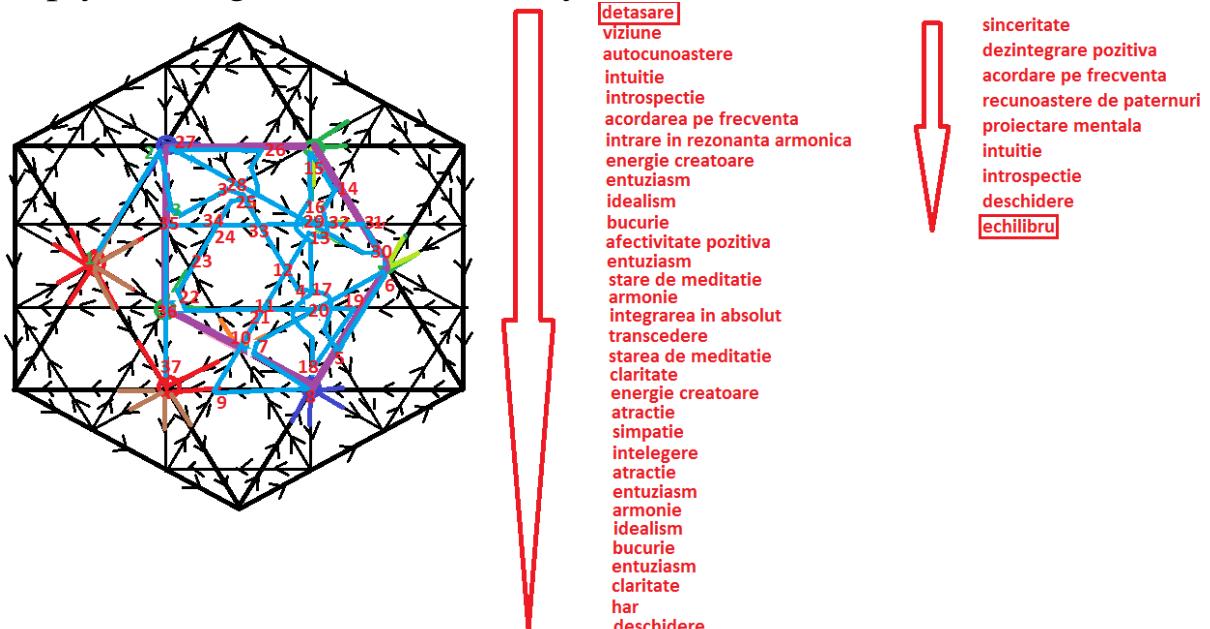
-other.

## **SEMANTICS OF NODES**

The coherent space of the information is obtained by a simple rule: any two nodes in a triangle belonging to a hexagonal structure generate the content of the third node. This allows close coverage of all the nodes of the network with the following remarks:

- two nodes, depending on the context, generate several points with different contents but belonging to the same semantic cone

- depending on the location of the basic scheme, the contents comply with a general functionality



These contents become relevant in the analysis of the roads coherent with the continuity of the senses, from the hexagonal structures. The coherent space of the information thus obtained is

common to all 8 levels and allows the transfer of the contents of the common nodes between the different layers and types of networks.

The construction of other levels will have to follow the following rules in order not to create a contradictory assembly where the arrows of the vectors will become incoherent destroying the semantic space:

- Each additional granulation level will respect all the vectors of the previous levels
- the new directions appeared by the change of granulation will acquire meanings that lead to the basic, sustainable or metabolic models
- to obtain these senses from all possible senses, a type of internal cycle structure or commutative diagram will be identified that will characterize the specific properties of that level of granulation that will be found in both the network on nodes and the network on sides.
- these properties will also characterize the type of semantic content specific to the granulation level

The progress in understanding the reality developed by refining human understanding with the help of artificial intelligence will allow understanding of the complex data structures at universe and multiverse level, together with understanding the valences and limits of the human and biological and psychological emancipation of the human species.

Understanding the reality, however, requires changing the paradigms of thinking inappropriate for this process.

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