



# MICA

Minerals Intelligence Capacity Analysis

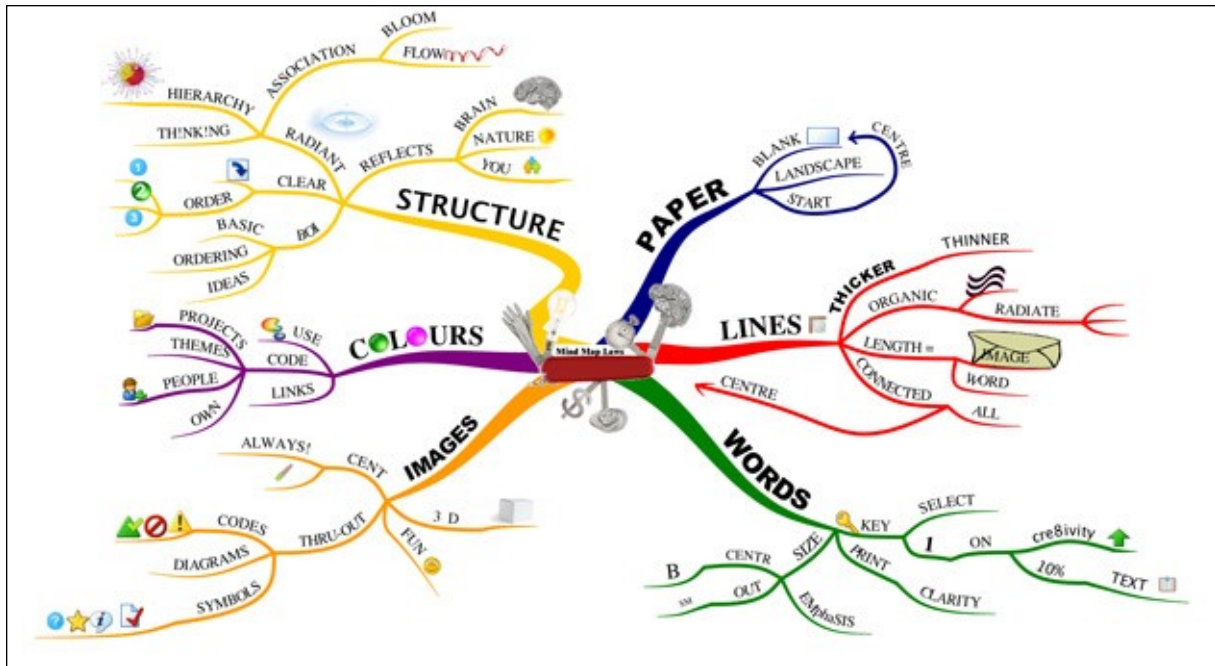
## ***FACT SHEET***

### ***Mindmapping***

#### **Scope (conceptual model & main characteristics)**

Mind-mapping is one of the many methods of visualising the relationships between a large number of entities and factors by means of graphical representation in a tree-like diagram. A mind-map can be the outcome of a structured group brainstorming exercise, but can also be used by individuals to structure thoughts. Although the concept as such has existed, if not for millenia, then for centuries, the term itself was coined by Antony Buzan in the 1970s (BUZAN & BUZAN, 1993; <http://www.tonybuzan.com>). These authors suggests the following approach for creating mind maps (Fig. 3.x):

1. Start in the center with an image of the topic, using at least 3 colors.
2. Use images, symbols, codes, and dimensions throughout your mind map.
3. Select key words and print using upper or lower case letters.
4. Each word/image is best alone and sitting on its own line.
5. The lines should be connected, starting from the central image. The lines become thinner as they radiate out from the center.
6. Make the lines the same length as the word/image they support.
7. Use multiple colors throughout the mind map, for visual stimulation and also for encoding or grouping.
8. Develop your own personal style of mind mapping.
9. Use emphasis and show associations in your mind map.
10. Keep the mind map clear by using radial hierarchy or outlines to embrace your branches.



Example of a Mind-Map (<http://www.tonybuzan.com/about/mind-mapping/>)

Mind-maps are used to generate, visualise, structure, and classify ideas, and as an aid to organizing information for a wide variety of applications, including complex system assessment and strategy development. When used in a group brainstorming context the grouping and organising may be undertaken in later step, when the relationships between the different elements are established. While in many settings a coloured-pen and flip-chart approach is appropriate, computer programs are available that generate mind-maps and make the accessible to further processing and evaluation. Thus, mind-maps can be used to develop search strategies and algorithms for expert-systems, such as that to be developed within the MICA-project.

As noted before, there are other variants for graphically representing hierarchies and relationships. Mind maps start out from a single element, while concept maps interconnect multiple elements. Concept maps delineate multi-dimensional relationship more in the form of a cob-web, while mind-maps are based on radial hierarchies and tree-like structures.

In addition to being a tool for organising information, mind-maps are also promoted as a mnemonic aid, particularly appealing to persons with a predominantly visual memory.

Range of relevant applications or topics

Mindmapping can be applied to any system and any type of query.

## Data needs, databases

There are no data needs.

## Model used (if any, mathematical, geological...)

While in many settings a coloured-pen and flip-chart approach is appropriate, computer programs are available (e.g. iMindMap marketed by Buzan, <https://imindmap.com/software/>) that generate mind-maps and make the accessible to further processing and evaluation.

## System and/or parameters considered

Mindmapping can be applied to any type of system.

## Time / Space / Resolution / Accuracy

Not relevant.

## Indicators / Outputs / Units

The output of a mindmapping exercise will be a schematic that relates a range of objects/thoughts in a logic way. Such maps can be further used in structuring problems, in developing flow-charts, etc.

## Treatment of uncertainty, verification, validation

Not relevant.

## Main publications / references

**Buzan, T., Buzan, B. (1993): The mind map book : how to use radiant thinking to maximize your brain's untapped potential.- 320 p., New York (Plume).**

## Related methods

**Futures Wheels and other brainstorming techniques.**

## Operational tools

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## Key relevant contacts

**Not applicable.**