

Wissenschaftliche Konferenz **„Vom Mineral zur Noosphäre“**

**aus Anlass des 150. Geburtstages von Vladimir Ivanovič Vernadskij
(1863-1945)**

Berlin, 15. März 2013



Foto: P. Knoll, 15.03.2013

Vladimir Vernadsky and Sustainable Development: from Theory to Practice

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**Die nachfolgenden Darstellungen
stellen die nicht abschließend
lektorierten Präsentationen des
Vortragenden zur Konferenz am
15.03.2013 dar.**

**Sie dienen ausschließlich als Basis
für fachliche Diskussionen; sie sind
nur für den privaten Gebrauch
bestimmt und nicht für die
Weiterverwendung freigegeben.**



Vladimir Vernadsky and Sustainable Development: from Theory to Practice

*by Yury Malyshev, Georgy Naumov, Asya Titova, and Sergei Cherkasov
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T H E O R Y

Definition and strategy of “sustainable development” in terms of interaction between humanity and nature are based on Vladimir Vernadsky’s genius.

- He never uses the term ‘ecology’, but environmental problems caused by uncontrolled growth of anthropogenic impact on the nature are clearly seen through his studies



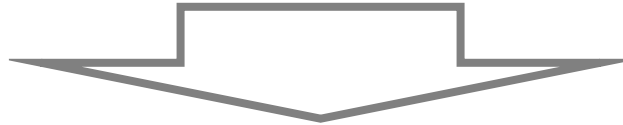
- Vladimir Vernadsky has foreseen environmental problems at more than 50 years before these problems become a common place of our life and our understanding.



THEORY

Being a student, Vernadsky wrote: “Humanity represents today a geological power...” (1982). Further on, he uses this sentence in many ways.

- The famous sentence sounds a bit too strong for our understanding of the XIX century reality. Even now, it calls for some doubts
- Some of Vernadsky’s well-known sentences are rather a bit emotional than pure scientific, especially when taken





THEORY

Vernadsky essentially develops Chardin's invention of the 'noosphere' term into biosphere-Noosphere transformation concept (1944)

- The Kingdom of Conscience is a beautiful dream defining the third phase of our planet development, after 'geosphere', and 'biosphere' phases



- Our believe in Vernadsky as a seer in that case means we should believe in **common sense as the destination of**

THEORY



- **Vladimir Vernadsky has foreseen environmental problems at more than 50 years before these problems become a common place of our life and our understanding.**
- **Some of Vernadsky's well-known sentences are rather a bit emotional than pure scientific especially when taken out of context**
- **Our believe in Vernadsky as a seer means we should believe in common sense as the destination of humanity**

P R A C T I C E

have been used by ambitious leaders for their own purposes, mainly – through manipulations with public opinion. Brilliant ideas by Vladimir Vernadsky have not avoided the same destiny.

- **GLOBAL WARMING**
- **OZON HOLE**
- **CO₂**
- **EXOSTION OF RESOURCES**

These major frauds are being referenced to (if not based on) Vernadsky's ideas and huge resources just get wasted



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economy', emphasizes importance of infrastructural and research projects as the tools of transfer from biosphere to noosphere. In 2001 he wrote: "...through the realization of scientific and technological progress, the average member of the human species, is able to improve the longevity and other demographic characteristics of his or her society's entire population, and to increase its per-capita useful output within a diminishing amount of required, average land-area per capita". From here, ***the real use of Vernadsky's ideas lays not in the global speculations, but in the real projects complying with a common sense.***



P R A C T I C E

In the Vernadsky State Geological Museum of Russia, the general directions of research are:

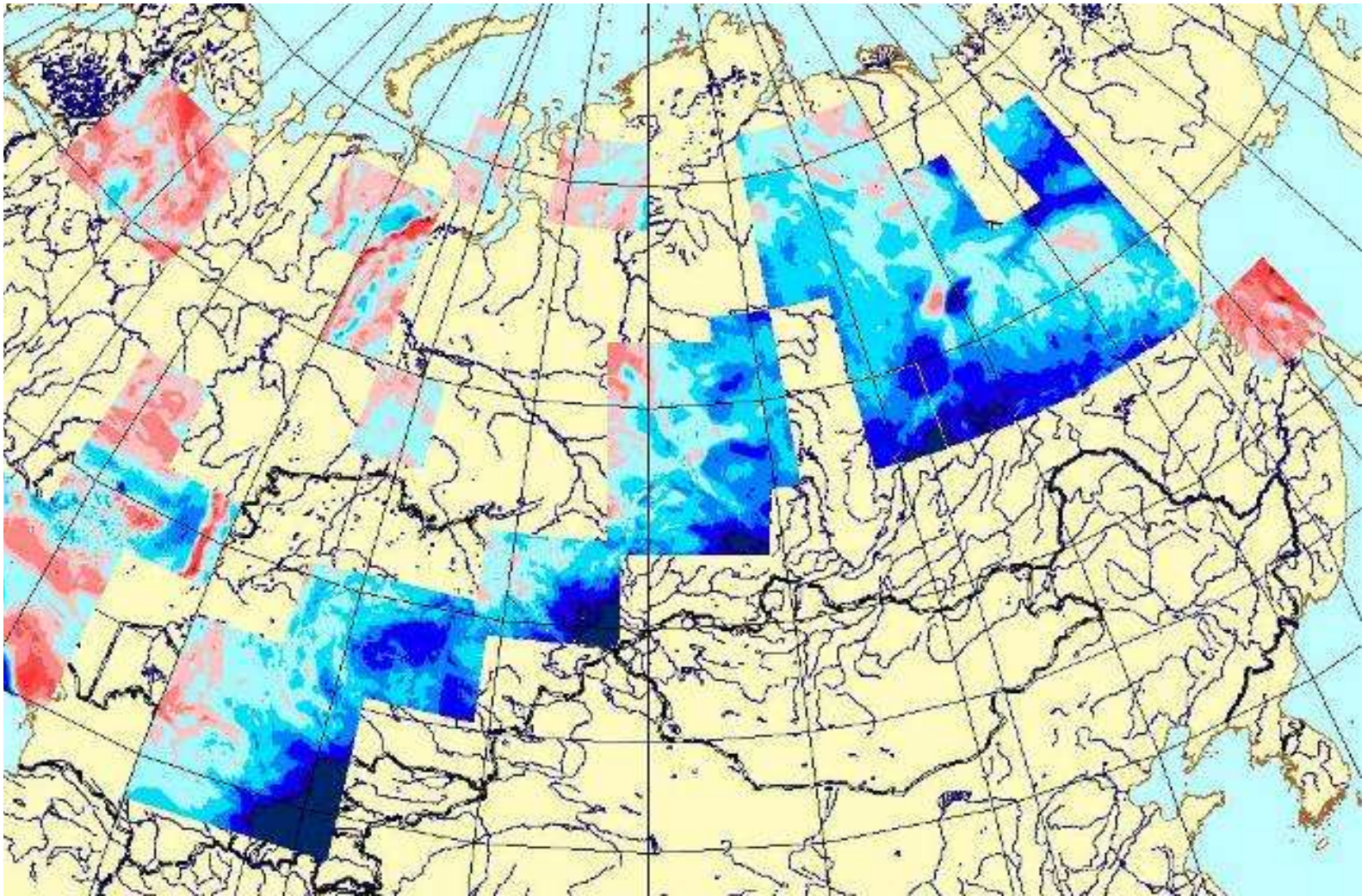
- Metallogeny and sources for high-tech raw materials;
- Geothermal resources;
- Geoinformatics;
- History of geology and mining sciences.

Just few examples to follow



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EXPLORATION TARGETING

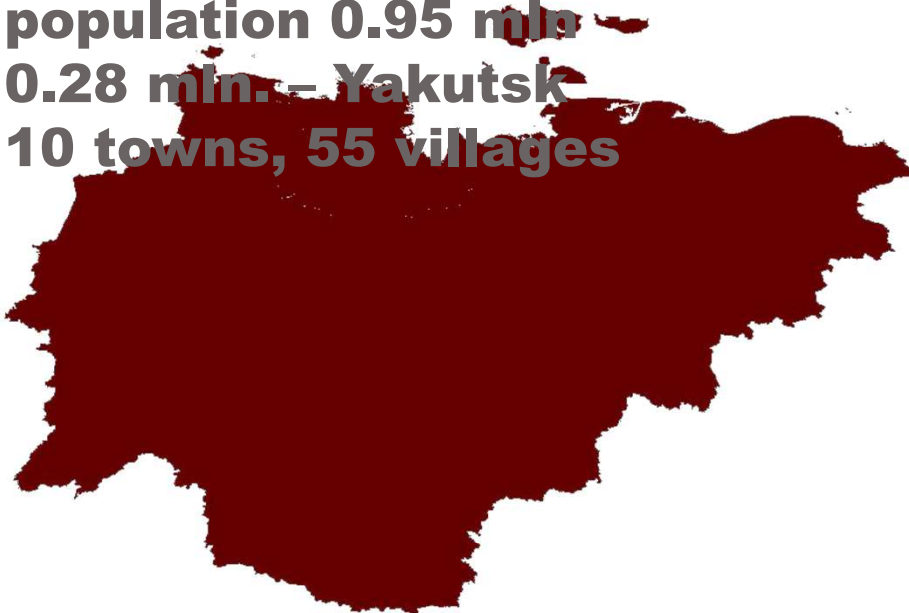




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INFRASTRUCTURE ISSUES

Sakha (Yakutia) Republic
population 0.95 mln
0.28 mln. – Yakutsk
10 towns, 55 villages



France
population 60 mln.



Germany
population 82.5 mln.





Verkhoyan'e Ridge



**Buildings on piles
in permafrost**



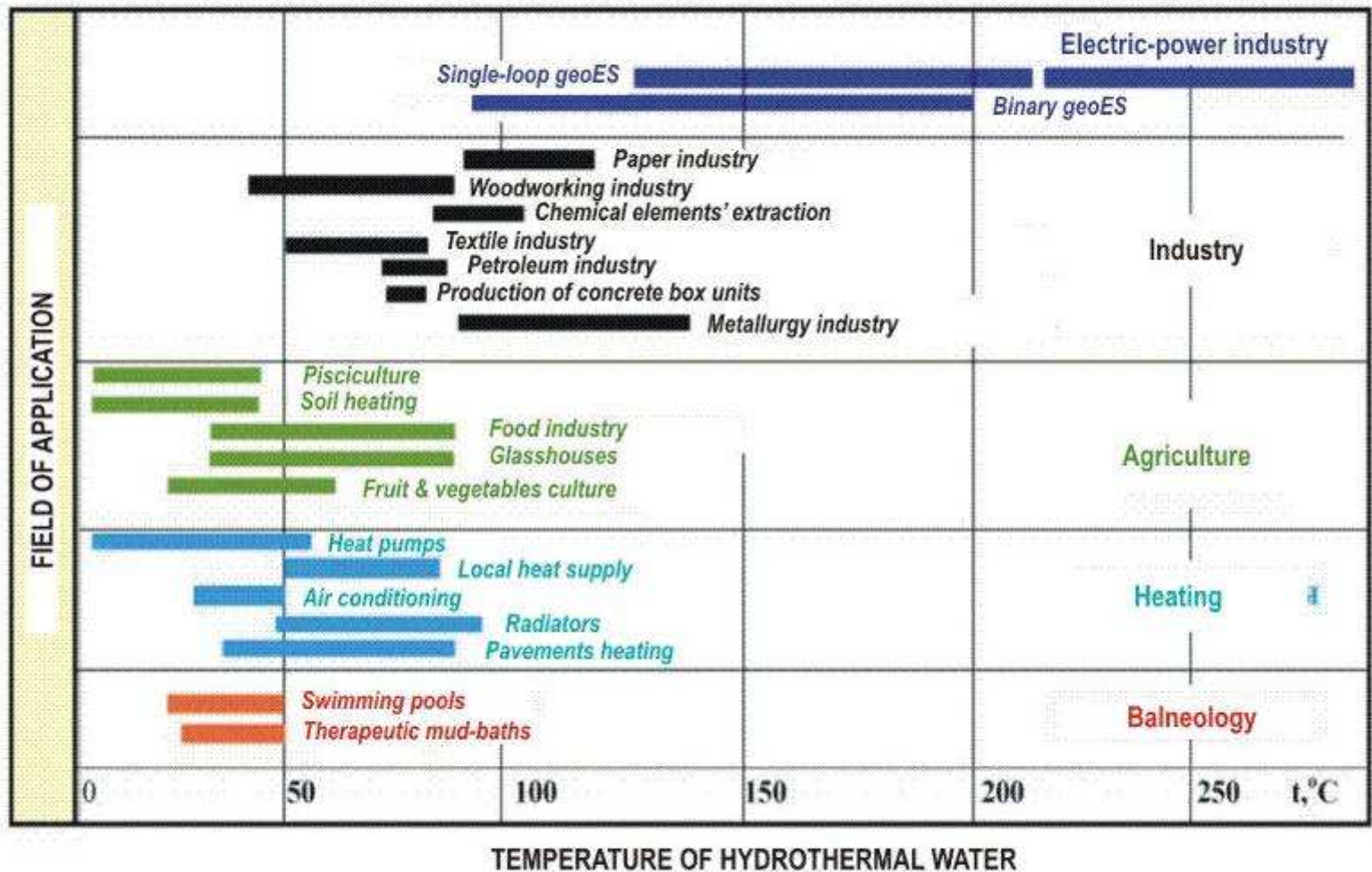
**Diamond mining – southern
Sakha (Yakutia)**



USE OF GEOTHERMAL WATER



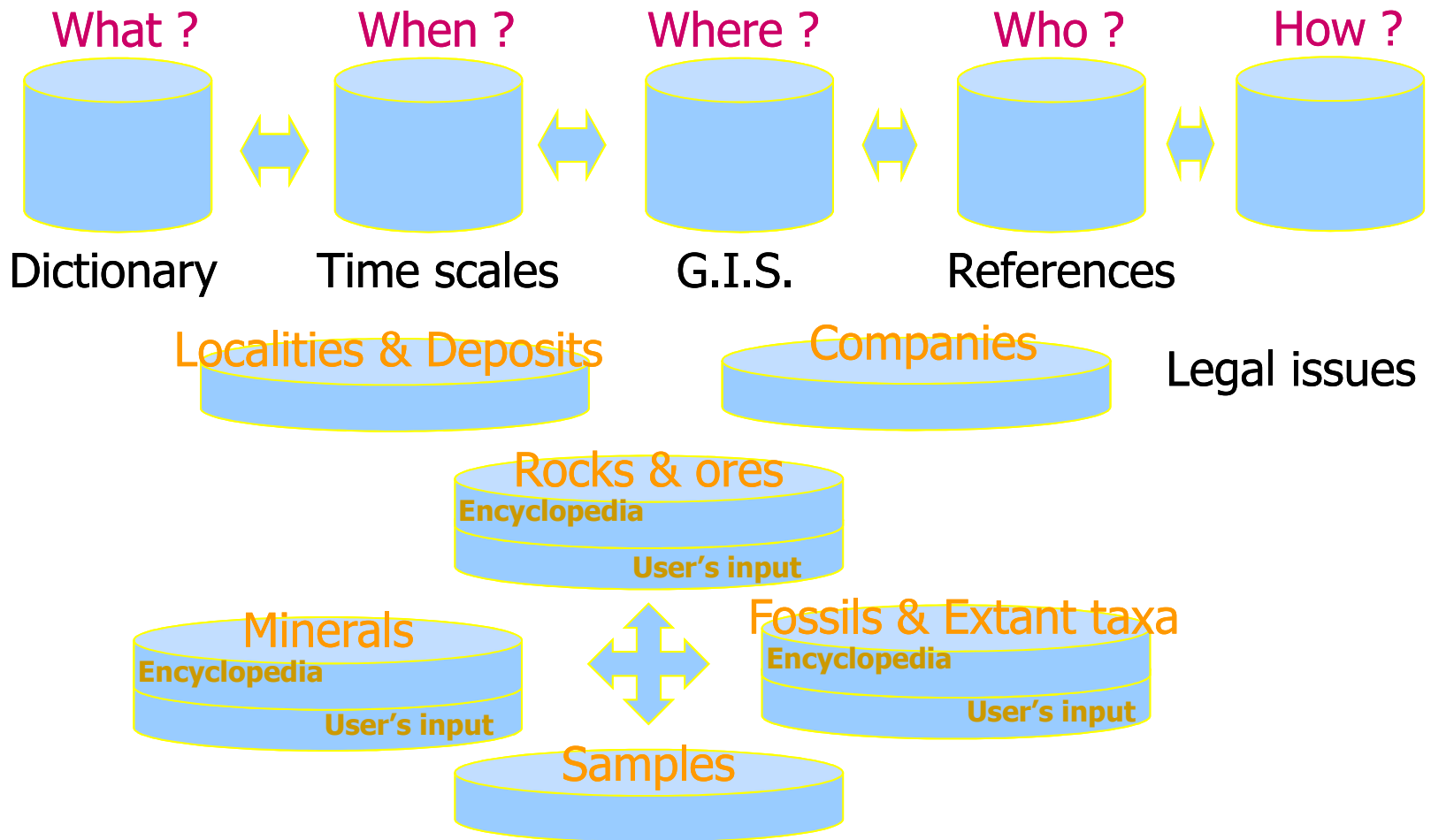
After Dr. Tech. Scien., Prof. O.A.Povarov





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Ontological informational systems



P R A C T I C E





Beside of being a great geochemist, Vladimir Vernadsky has brilliantly shaped ideas establishing common sense as a goal and the future of humanity.

Whether these directions are to become a reality, depends on our common sense.

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