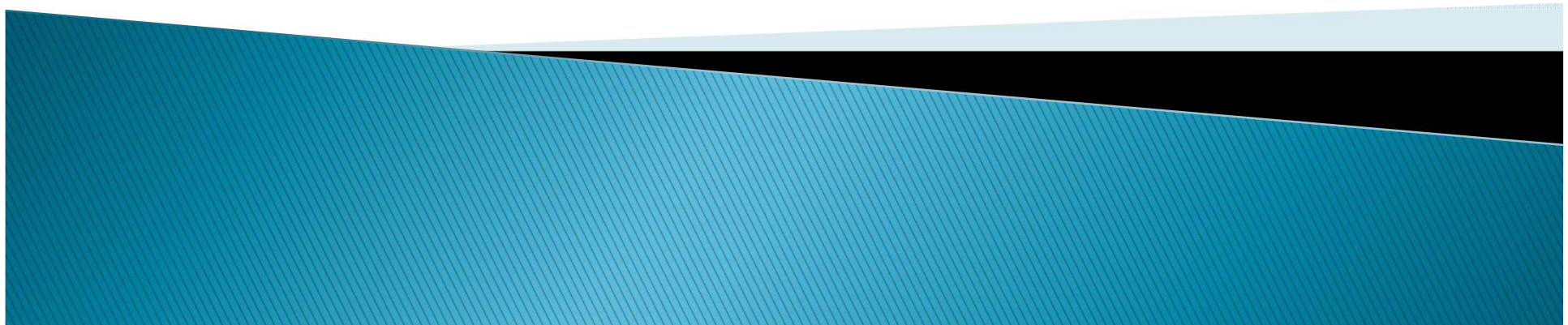




Društvo tehničnih vodij
površinsko odkopavanje

Planning of aggregates supply – a view from the aspects of industry

dr.Željko Pogačnik, president of DTV-PO, zeljko.pogacnik@gmail.com
SNAP SEE conference, Bled, 23.10.2014



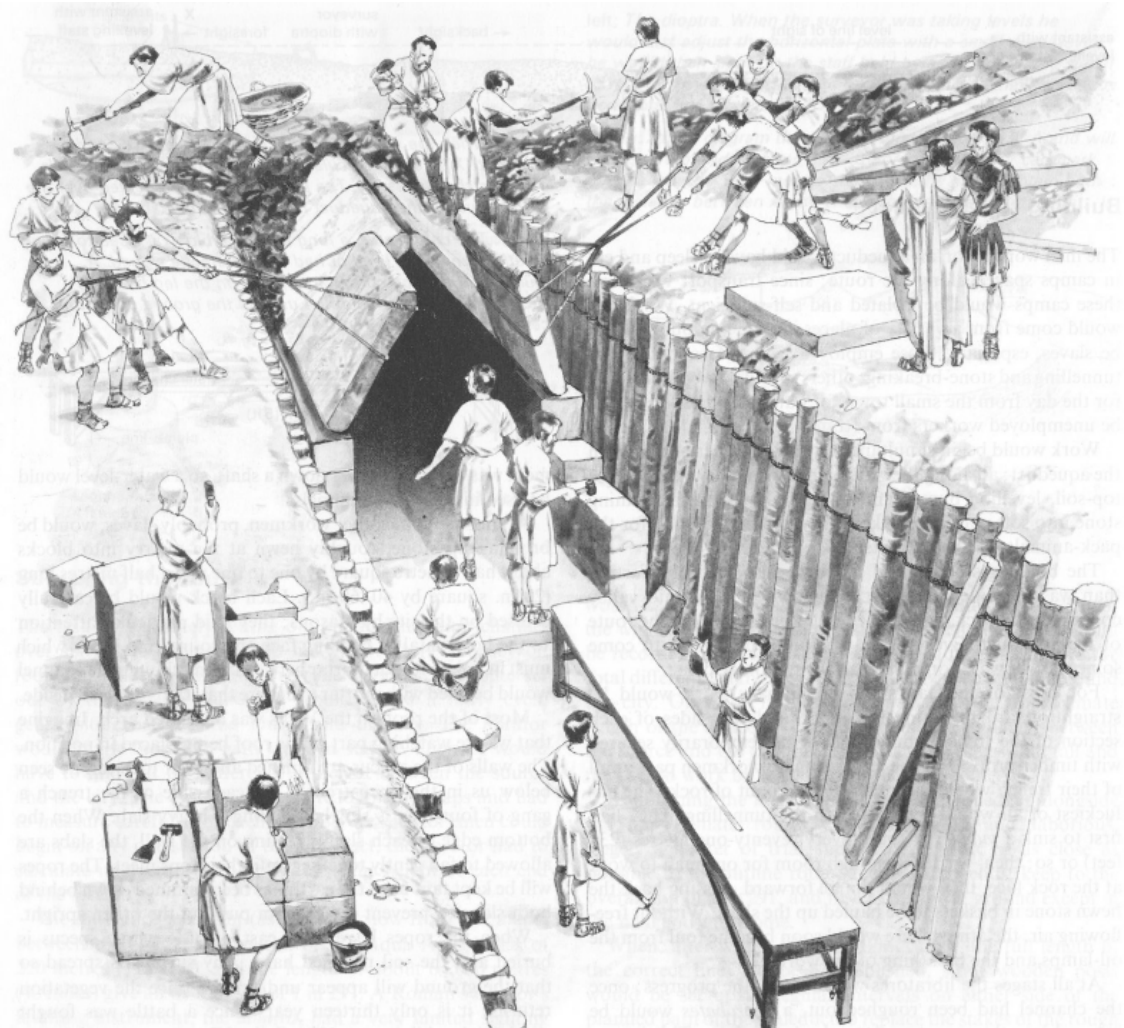


Društvo tehničnih vodij
površinsko odkopavanje

Perception of *How to use* or *Marcus Vitruvius Pollio*



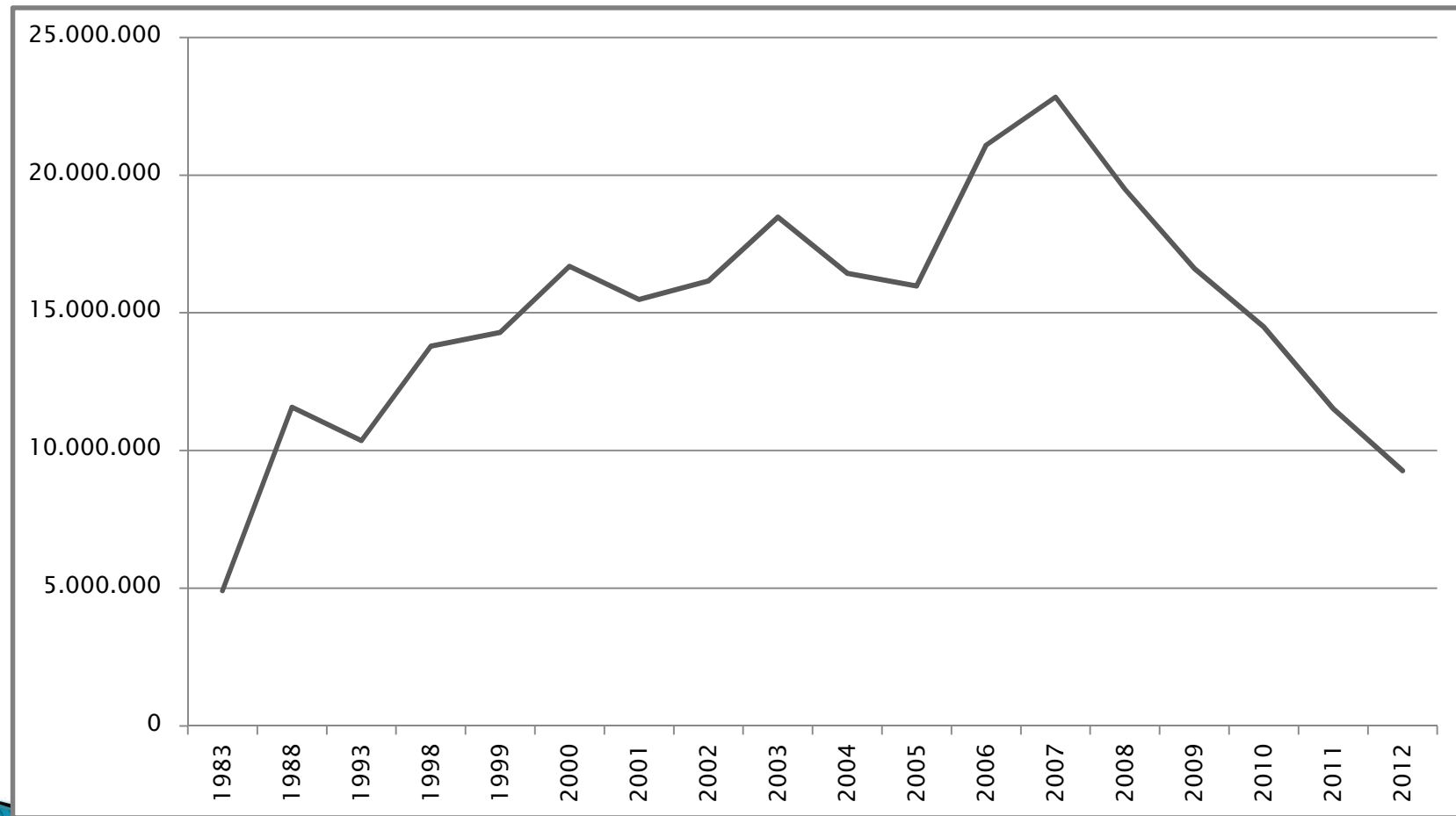
Vitruvius explains the meaning
of symmetry to emperor
Tiberius





Društvo tehničnih vodij
površinsko odkopavanje

Production of raw materials for construction proposal (t) over time



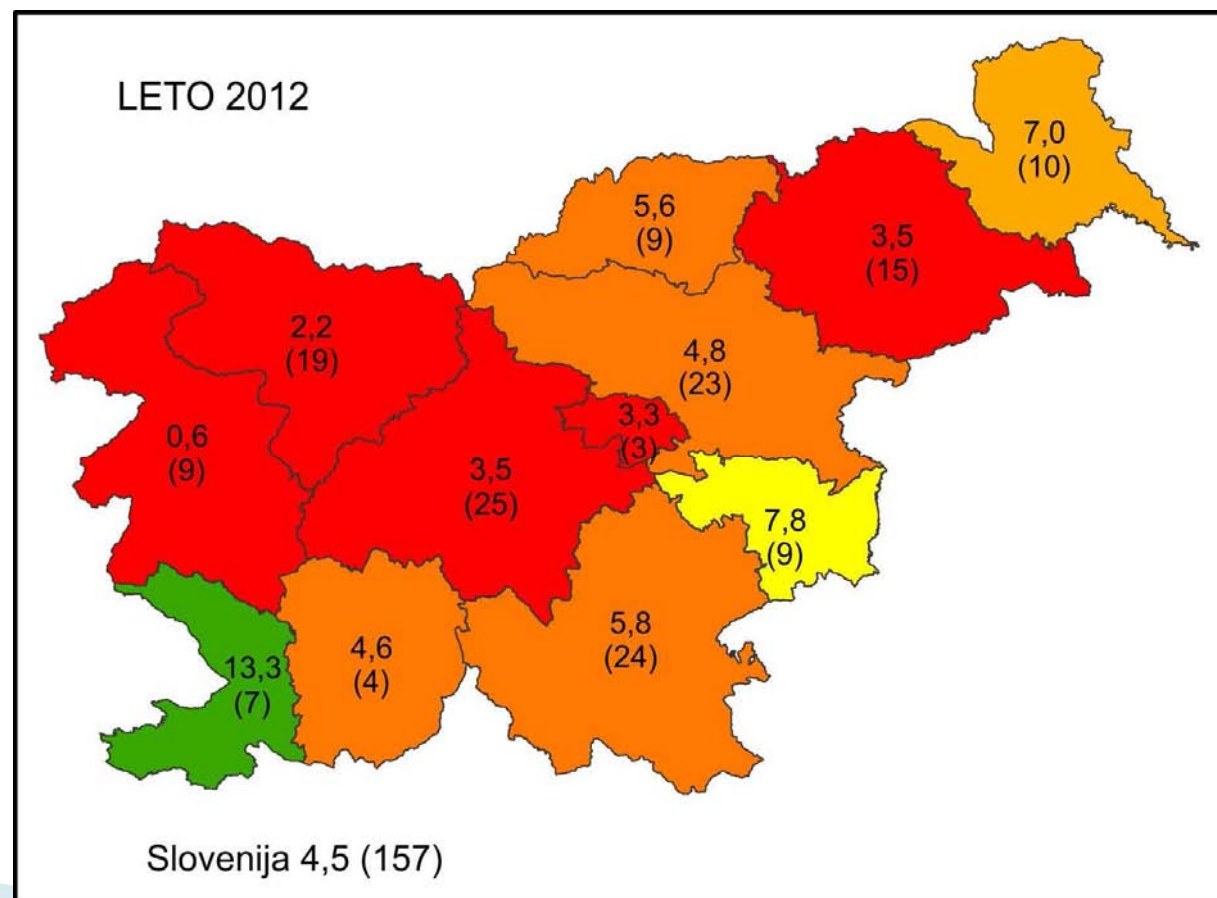
Ref: Posvet DTV PO, Logatec, 2013



Društvo tehničnih vodij
površinsko odkopavanje

Production of raw materials for construction proposal (t) over time

Production of raw materials for construction (t) per unit area (1000 km²)



Ref: Posvet DTV PO, Logatec, 2013



Društvo tehničnih vodij
površinsko odkopavanje

The policy of mineral resources \neq macroeconomic policy

The mining law (ZRud-1-UPB3, Ur.L.RS 14/2014) was adopted in order to simplify procedures in the exploitation of mineral resources but does not take into account the inertia of the state bureaucracy

The procedures for obtaining and renewal of the concessions do not take place after the planning

no concessions \rightarrow economic damage \leftarrow detriment of GDP

Charges are $f(t, \textit{political/macroeconomic conditions})$ incurred due to the payment of:

1. concessions to the surface, wherein the mineral raw has been exploited
2. concessions per unit of the excavated minerals
3. benefits for the eco-remediation mining surface or bank guarantee
4. land property taxes



Društvo tehničnih vodij
površinsko odkopavanje

The main problems caused by the "introduction of ZRud-1"

Stockpiles management



- aggregates must be available within a radius of <50km
- larger cities/communities are consumers aggregates

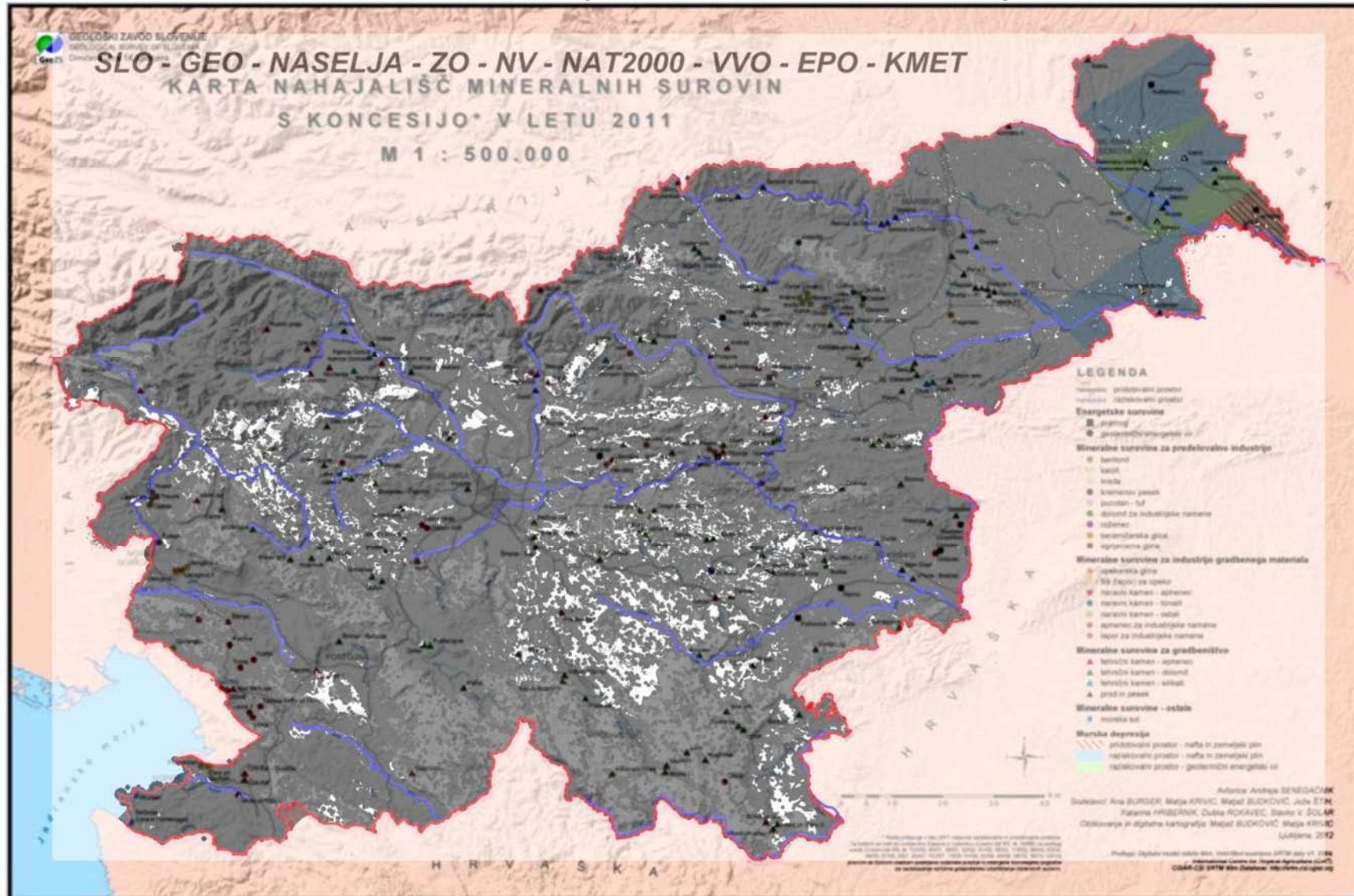
Ref: Posvet DTV PO, Moravci pri Ljutomeru, 15.5.2012



Društvo tehničnih vodij
površinsko odkopavanje

The main problems caused by the "introduction of ZRud-1"

LEGEND: GEO=geology; NASELJA=villages, towns; ZO=protected environment; NV=natural values;
VVO=water protection areas; EPO=ecologically important areas; KMET=area for agriculture

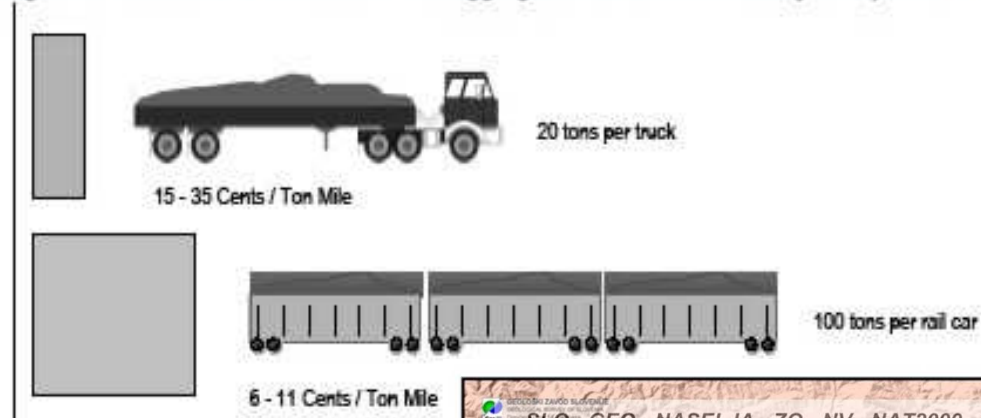




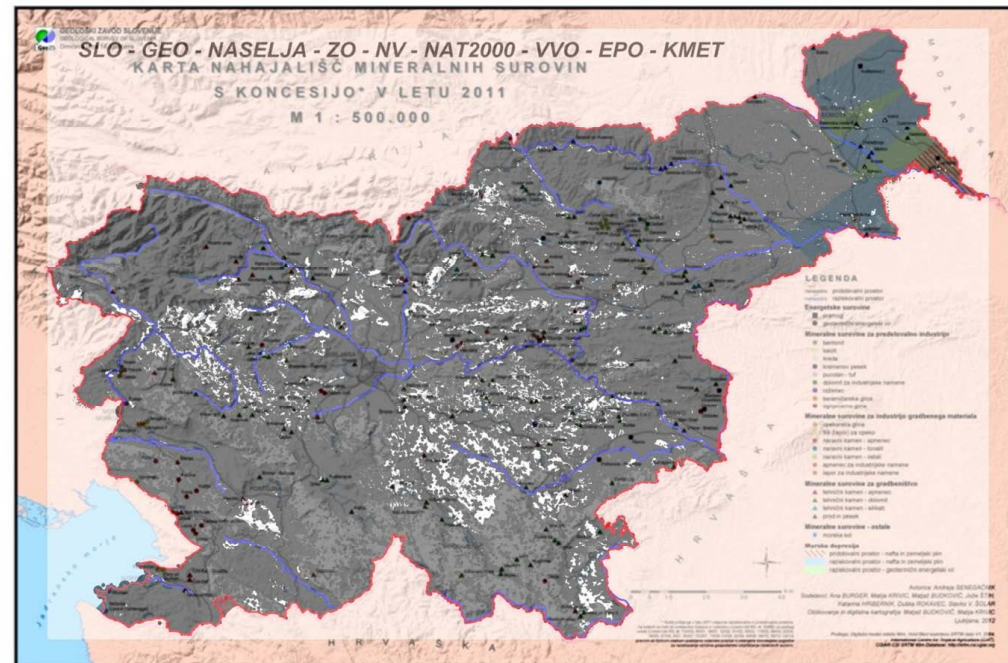
Društvo tehničnih vodij
površinsko odkopavanje

Access to Local Aggregates Resources

Figure 88: Estimates of the distance that aggregates can be economically transported in the US using various methods of transport



$2r < 50 \text{ km} \text{ ???}$





Društvo tehničnih vodij
površinsko odkopavanje

Timeline and costs tied to the new location of raw materials

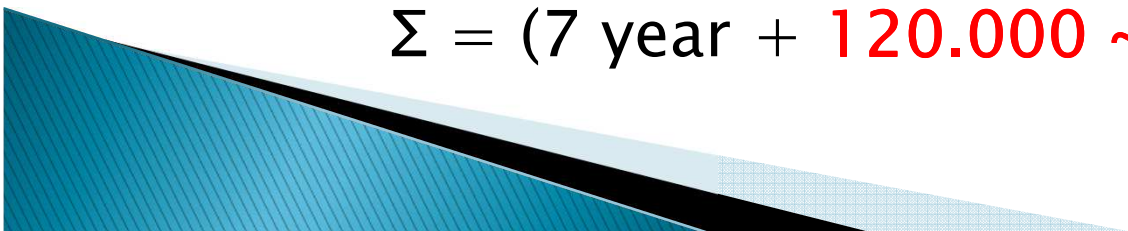
For making a new documentation for exploitation purposes, with a view to amending OPN (municipal spatial plan) we should include:

1. New mining project: **10.000 ~ 15.000 €**
2. Implementation/process of the new municipal spatial plan proposal (OPN): **25.000 ~ 35.000 €**
3. an new environmental (including new technological processes/mining impact) report: ~ **15.000 €**

And then after some years you have to pay another **40.000 €** for OPPN (detailed municipal spatial plan)

After 2 years, you have again a cost of **30.000 €** for the concession contract.

$$\Sigma = (7 \text{ year} + \mathbf{120.000 \sim 135.000 \text{ €}})$$





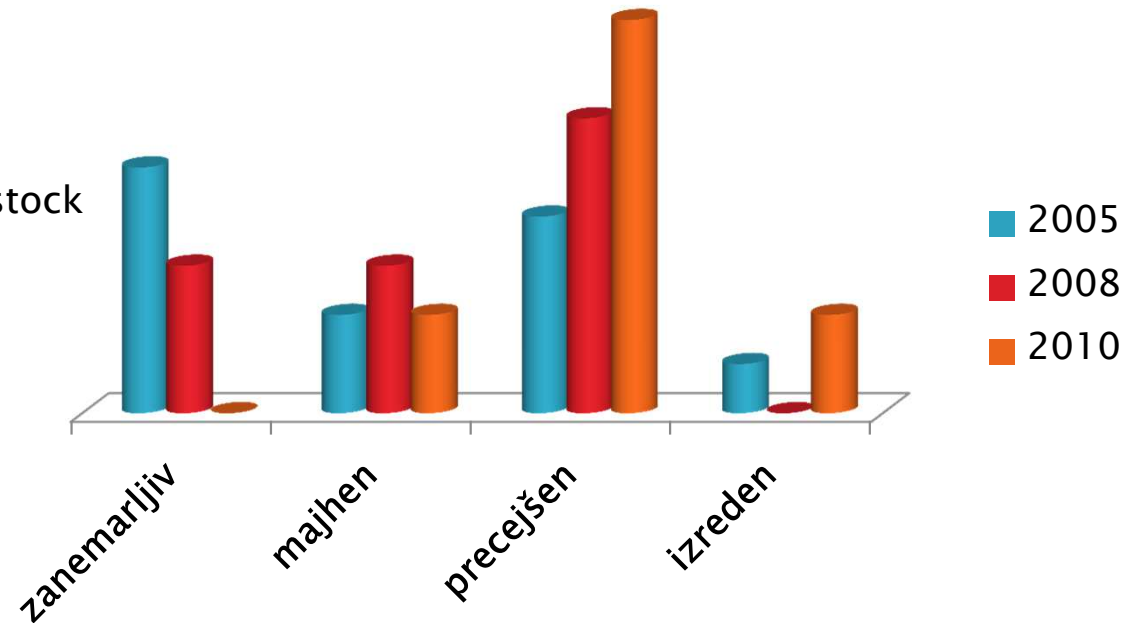
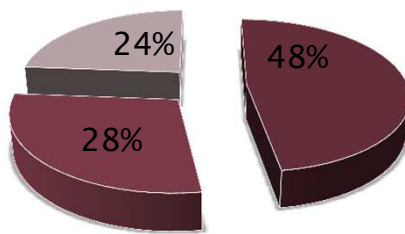
Društvo tehničnih vodij
površinsko odkopavanje

The main problems caused by the "introduction of ZRud-1"

Could the change of existing mining law improve the economic situation and if where?

YES = 76,5 %

- planning of exploitation
- providing the right quantity of stock
- planning the eco-remediation



LEGEND:

Zanemarljiv – negligible
Majhen – small
Precejšen – significant
Izreden – remarkable



Društvo tehničnih vodij
površinsko odkopavanje

Impact of the exploitation (stocks) mineral resources and the economy

GORENJSKA

overall revenues
113.797.654,00 €
Net profit / loss
-1.431.679,00 €
10.301.923,50 €
-537.538,00 €
No. Employees
760
revenue/employee
149.733,76 €
profit/employee
-1.883,79 €

OSREDNJESLOVENSKA

overall revenues
548.919.141,00 €
Net profit / loss
-31.862,00 €
188.801,75 €
638.414,25 €
No. Employees
2.594
revenue/employee
211.611,08 €
profit/employee
-12,28 €

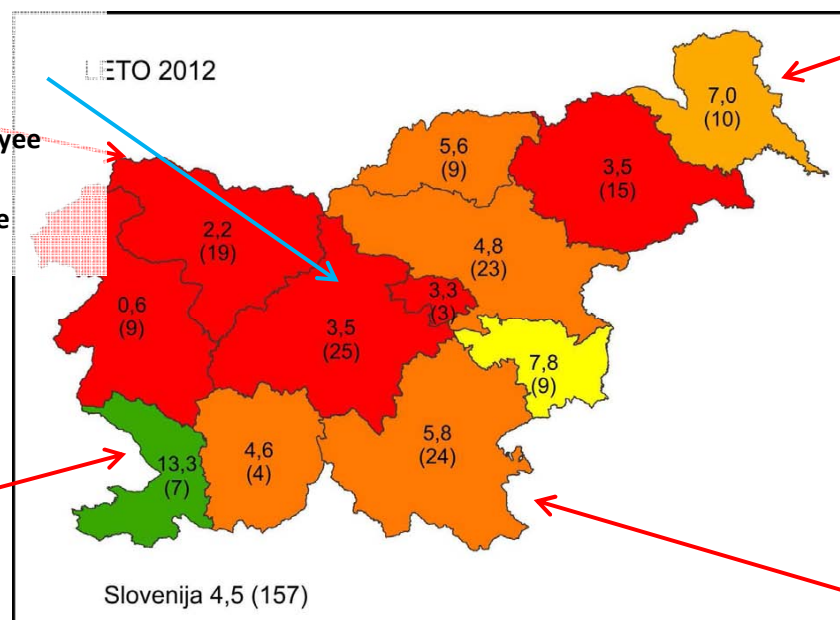
construction companies produce in average
net loss of 14.594,23 € /employee
**companies which produce construction materials produce
in average net loss of 1.905,69 € /employee**
**enterprises engaged in mining produce in average
net loss of 7.169,13 € /employee**

POMURSKA

overall revenues
143.096.994,00 €
Net profit / loss
3.006.474,25 €
583.070,25 €
174.560,00 €
No. Employees
1.011
revenue/employee
141.540,05 €
profit/employee
21,24 €

OBALNO KRAŠKA

overall revenues
20.123.787,00 €
Net profit / loss
-1.590.096,00 €
44.717,00 €
-774.071,00 €
No. Employees
66
revenue/employee
304.905,86 €
profit/employee
-24.092,36 €



LEGEND:

construction companies
companies which produce construction materials
enterprises engaged in mining

SE SLOVENIJA

overall revenues
199.578.192,00 €
Net profit / loss
2.687.176,00 €
-2.232.030,25 €
224.070,00 €
No. Employees
498
revenue/employee
400.759,42 €
profit/employee
6,71 €



Društvo tehničnih vodij
površinsko odkopavanje

Conclusion and the forthcoming proposals

Authorized holders with concession for the mineral extraction have
Crossed the price of work for the unit of extracted material

Due to lack of infrastructural investment approx. 2/3 of authorized
holders are ready to interrupt the concession contract

In 2012, only every third holder has a vision for the future economic
activities within the mining area

Harmonisation - operation between space (planning) and the
environment (exploitation).

To establish a basic legal act that will define the layout of space planning, to ensure
the self-sufficiency mineral supply.

single tax, which varies with the level of living costs





Društvo tehničnih vodij
površinsko odkopavanje

Are we able to re-build a suitable mining environment (*The question about catch a train or a small fish?*)

