# THE MOST CRUCIAL MECHANISMS AND PHENOMENA IN THE SOILS AND GROUND-WATERS AND IN THE COMMUNITIES LIVING ON THAT SOIL THAT SOLS2SEA WILL ADDRESS IN ITS STUDY Dr. Grit Martinez - Ecologic Institute





## **N-REDUCTION VARIES SPATIALLY AT** SMALL SCALES



Total reduction (groundwater + surface water) Reduction in groundwater – 100 m grid

- Calculated N-leaching from root zone
- Observed N-flux at river gauging stations





Calculated by model – is it correct?
NiCA project <u>www.nitrat.dk</u>





### **REGULATION SHOULD EXPLOIT LOCAL** VARIATION IN NITRATE REDUCTION

More than 50% of the nitrate leaching from the root zone is reduced/ disappears in the subsurface when flow lines cross below the redox interface (in Denmark)If we can identify areas where subsurface reduction takes place → we can plan a more cost-effective regulation



### SOCIO-CULTURAL CONSTRUCTION OF EUTROPHICATION

 The local/regional culture in dealing with environmental pollution (believes & values, political and economic context)

 Connection to nature/ environment

 Acceptance and uptake of reduction measures and plans/ policy framework



Source: www.05lovesgeography.blogspot.com



#### Dr. Grit Martinez

#### Ecologic Institute, Pfalzburger Str. 43-44, D-10717 Berlin Tel. +49 30 86880-0, Fax +49 30 86880-162

Grit.Martinez@ecologic.eu

www.ecologic.eu



