



# Mining and Spatial Planning

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# Effects of raw materials production

**loss of areas for agriculture**

**influence on landscape and recreational areas**

**endangerment of protected animals and plants**

**effects on groundwater and surface water**

**noise and dust caused by mining and transportation**

# Effects of raw materials production

**basis material for  
building industry**

**regional gross added value**

**jobs**

## Two (diverging) interests development when developing raw materials production site

### ▶ **Protection of people and nature**

goals:

- high standards of living and of the environment
- avoid negative effects of neighbouring land use

### ▶ **protection of interest of the economy and mining sites**

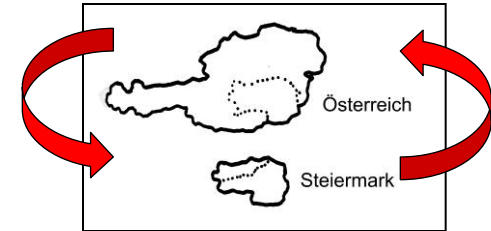
- no conflicts with neighbours that are sensitive to emissions
- no conflicts with the protection standards of the nature and the environment (conservation, water protection, etc.)

## Principles of Spatial Planning in Austria

- ▶ Hypothesis:  
Land use is a product of society, economy, technic, values etc.
- ▶ Spatial planning takes action, when spatial development does not meet common goals of society.
- ▶ Thus, the goals need to be defined.
- ▶ As spatial planning limits land use options of private people, measures need to be justified.
- ▶ Spatial planning acts as agent of public interests

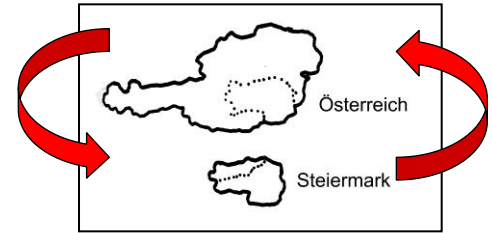
## Relevant Public Interests Related to Mining and Spatial planning goals

- ▶ **gross added value and jobs**
- ▶ **environmental protection:**  
short ways for delivering mineral raw materials
- ▶ **protection of neighbours :**  
separate conflicting land use, definition of buffers
- ▶ **security of supply:**  
safeguarding usable zones for mining
  - ➔ **need to prove public interest  
in planning and permit processes**



- ▶ Austria is a federal state: competences divided between central State “Bund” and 9 “Länder” (“Land”)
- ▶ **mining**: competence of the central state (MinROG)
- ▶ **spatial planning** : competence of the “Länder”
- ▶ when developing a gravel pit etc. a permission according to the MinROG is required
- ▶ no permission according to spatial planning law required
- ▶ however, spatial planning is explicitly mentioned in the MinROG as public interest that has to be observed within the approval procedure

- ▶ link to **land use plan** of the **municipalities**:  
buffer zones to certain types of land use
- ▶ **spatial planning authority of “Land”**:  
position of a party in the approval procedure
  - has to be heard in approval process by state authority
  - can bring in public regional development interests
  - can appeal to the highest courts
- ▶ transport plans of the municipalities have to be observed
- ➔ A “Land” with a good documentation of public regional development interests laid down in **enacted plans** can better argue in approval process

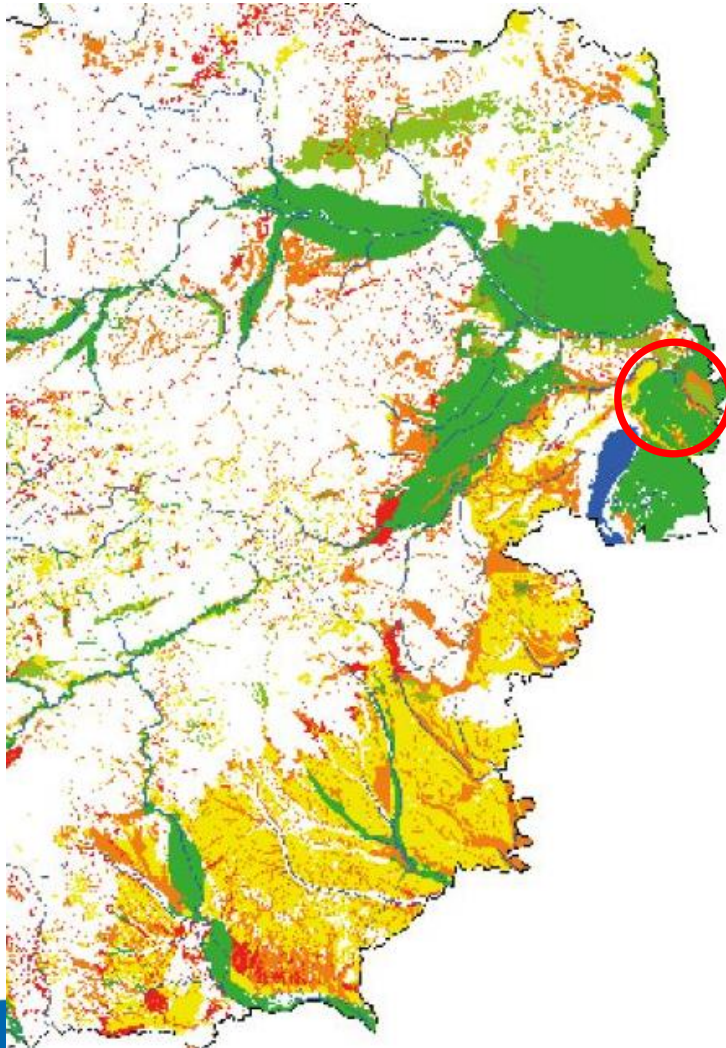




## Links to the land use plan

- ▶ 300-m-buffer zone  
to certain types of land use
  - zones dedicated to **housing** or housing developments
  - **zones for sensitive land use** (e.g. kindergardens, schools, hospitals, retirement homes, churches, cemeteries, children playgrounds, parks, ...)
  - **protected areas** (e.g. national park, natural conservation areas)
- ▶ local government can reduce the 300-m-buffer
- ▶ But: local government must not enact housing zones just for the reason to make mining impossible

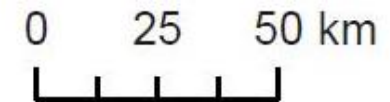


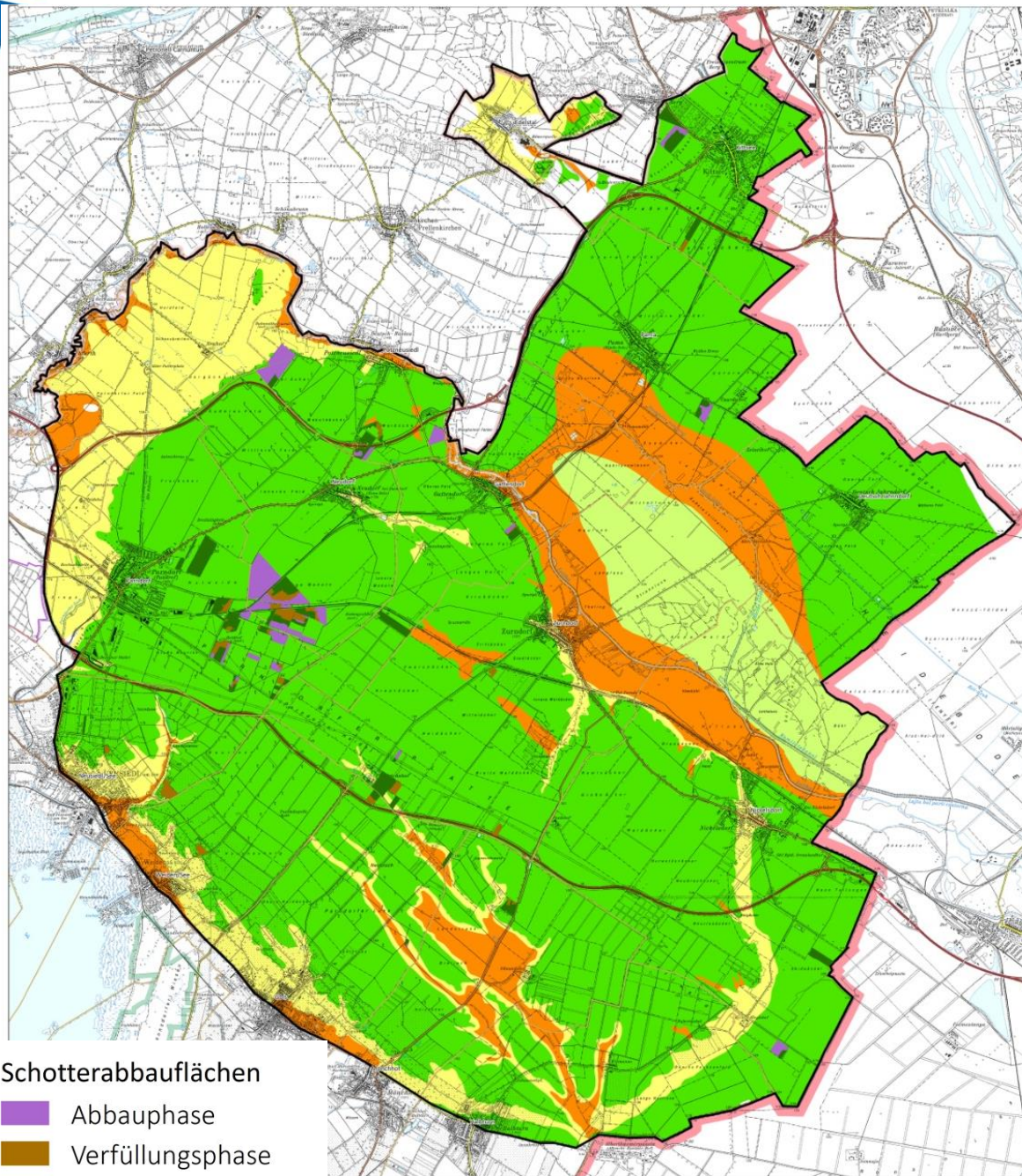


## Quality of material (sand gravel) according to Mineralrohstoffplan

### Rohstoffgeologische Eignung

- 1 - beste Eignung
- 2
- 3
- 4
- 5 - schlechteste Eignung





Schotterabbauflächen

- Abbauphase
- Verfüllungsphase
- Nachnutzungsphase

## Nordburgenland



# Quality of material according to Mineralrohstoffplan

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## Nordburgenland



## Planning Process - Involvement of

- ▶ relevant public administrations
- ▶ municipalities
- ▶ NGOs
- ▶ operators of gravel pits

## Goals defining public regional development interests („Land“)

### for sand, gravel and stone

- ▶ Enabling of raw materials production on sustainable sites to safeguard the supply of the economy and the population with products of the building industry
- ▶ Safeguarding the quality of live of the citizens, especially in housing zones and recreation areas
- ▶ Protection of environment, landscape and agriculture minimising negative effects on the landscape



## Definition of criteria for areas on the regional level



- ▶ **Exclusion zones:** new raw materials production developments have to be avoided due to regional planning public interests
  - ▶ **Conflict zones:** potential land use conflict. When conflict solved, new raw materials production developments possible
  - ▶ **“No Conflict zones”:** areas outside of exclusion zones and conflict zones; new raw materials production developments are possible. However local relations have to be observed.
- ➔ zoning can be used to justify regional development interests in approval process

## Exclusion Zones - Criteria

Criteria are e.g.

- ▶ building land
- ▶ hazard zones (flooding)
- ▶ cultural heritage (UNESCO)
- ▶ water protection areas
- ▶ National park, natural protection areas, Natura 2000 areas
- ▶ Landscape conservation



## Conflict Zones - Criteria

Criteria are e.g.

- ▶ agricultural land with high quality
- ▶ wildlife corridors
- ▶ plots with assumed field monuments
- ▶ zones for wind power stations
- ▶ tourist zones
- ▶ local recreation areas





## Criteria to meet spatial planning goals



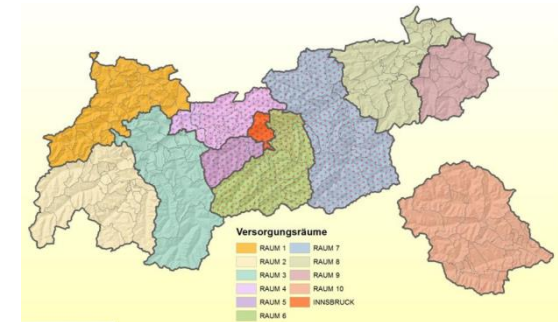
Approval documents checked by spatial planning authority:  
Does submitted mining concept meet spatial planning criteria?

- ▶ no raw materials production in **exclusion zones** (would contradict spatial planning goals)
- ▶ project proposal in **conflict zones** needs to prove that the measures are taken to avoid the conflict of interest
- ▶ check, whether there is a conflict between transport concept of raw materials production site and the local transport plan of the municipality

# Raw Materials Production concept Tyrol



- ▶ Goal:  
environmentally friendly delivery of sand, gravel and stone –  
max 30 km
- ▶ Definition of supply districts
- ▶ Limitation of production within  
supply district due to estimated demand
- ▶ Base for experts opinion of spatial planning authority within the  
mining approval process



## Weighting of different public interests

- ▶ Spatial planning defines just a part of the bundle of relevant public interests that have to be considered in approval process (e.g. mining, natural protection, forestry, ...)
- ▶ When submitted concept for raw materials production faces conflicting public interests
  - ➔ weighting of public interests by mining authority required
- ▶ Considering arguments reflecting public interests is required by the applicant
  - ➔ However:  
the result of a juridical process is not predictable



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