

# UAVs – Fields of application in protected areas

## Practical examples

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# Departments

- Parks
- Nature
- Communication
- Sustainability

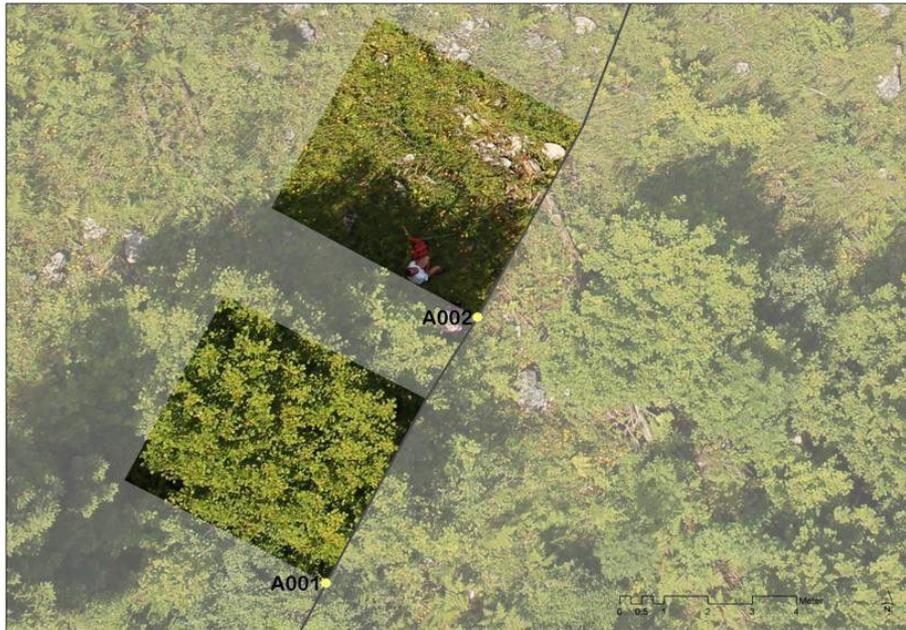


# E.C.O. pteryx & Co

- cheap and safe new method
- new quality of aerial photographs (high resolution)
- new pictures available at all times
  
- easy controlling of the vehicle
- exact pre-flight planning and autonomous flight
- independent usage



# Enhance data quality



- high resolution UAV-photo
- >1,5cm/pixel
- available at all times

- standard aerial photo
- >15cm/pixel
- available every 2 – 3 years

**Possible output**

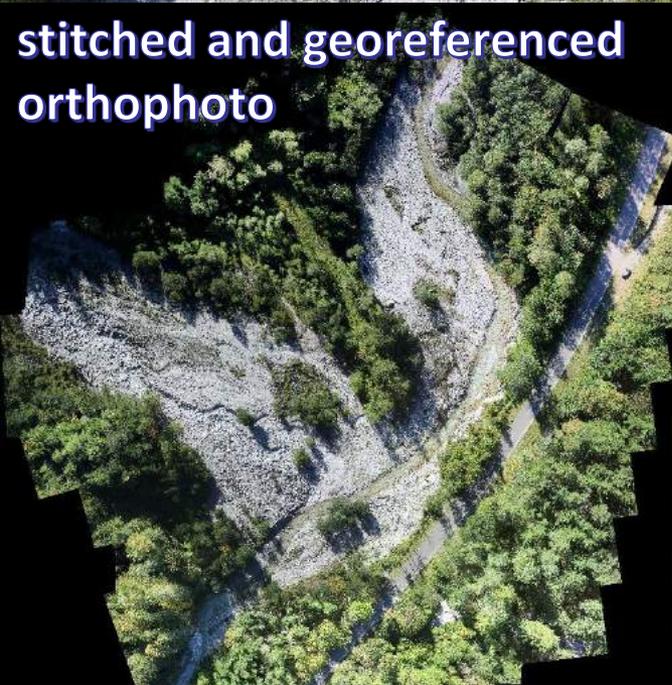


photo with skew

**orthophoto**



**stitched and georeferenced  
orthophoto**



**3D model**



**National Park Gesäuse (Styria)**

# fields of application I

## Conservation (Examples No. 1 & 2):

- ecological monitoring
- documentation of inaccessible or sensitive areas such as mires, water bodies, floodplains or rock sections
- documentation of nature conservation projects
  - e.g. erosion control measures
- field mapping

## Tourism (Example No. 3):

- landscape panorama views for e.g.
  - information boards for theme trails
  - brochures and other printouts
  - homepages

# Example No. 1: Gesäuse National Park (Styria)

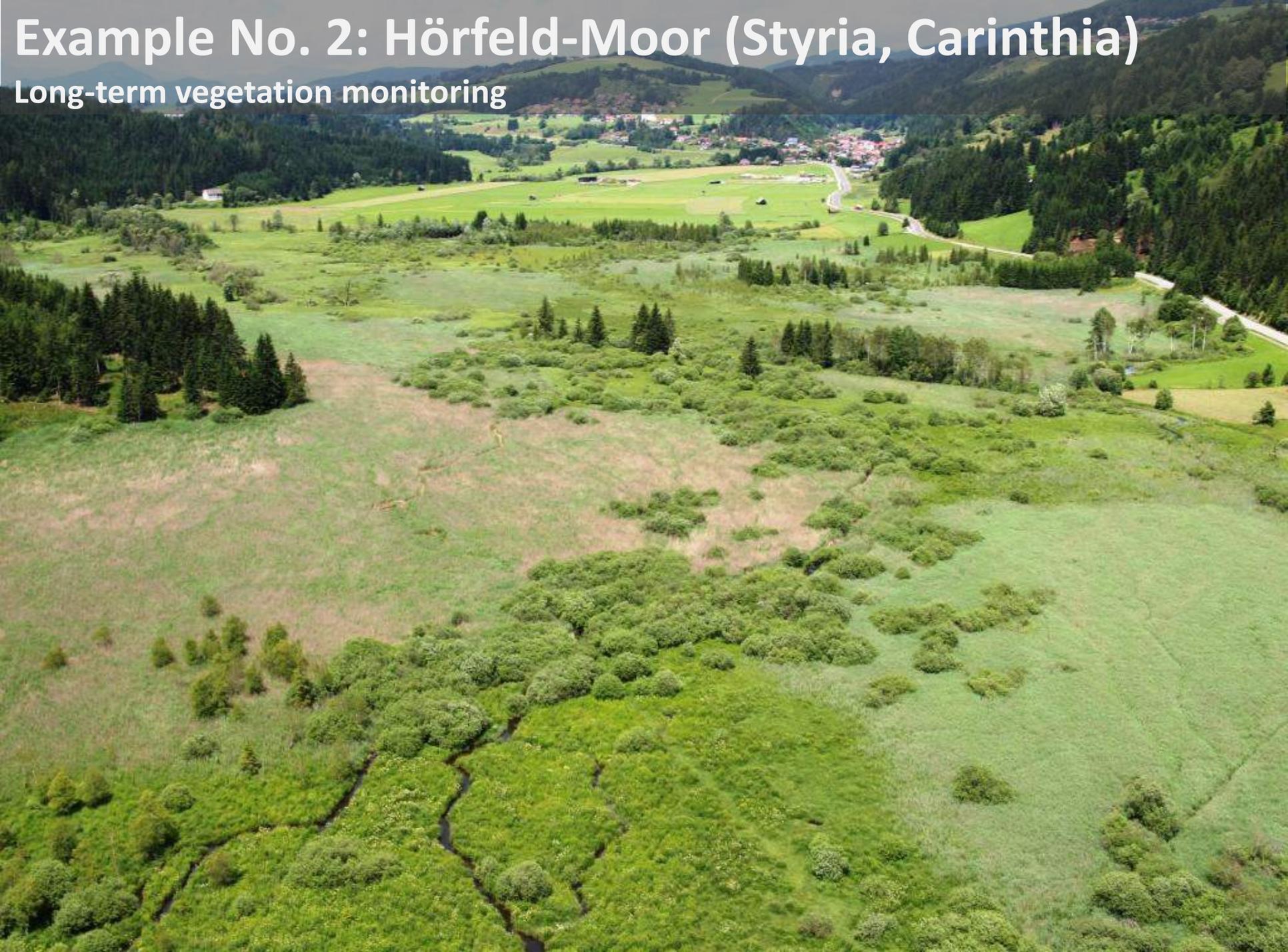
Analysis of natural processes / vegetation monitoring in an avalanche system



# Example No. 1: Gesäuse National Park (Styria)

Analysis of natural processes / vegetation monitoring alongside Enns river



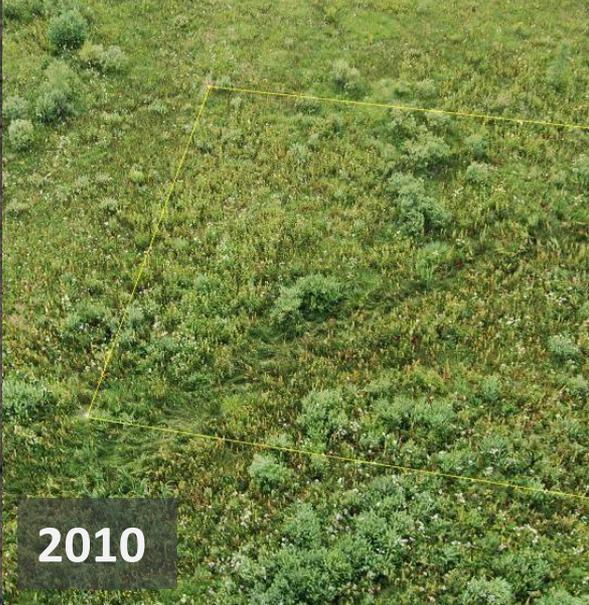


# Example No. 2: Hörfeld-Moor (Styria, Carinthia)

Long-term vegetation monitoring

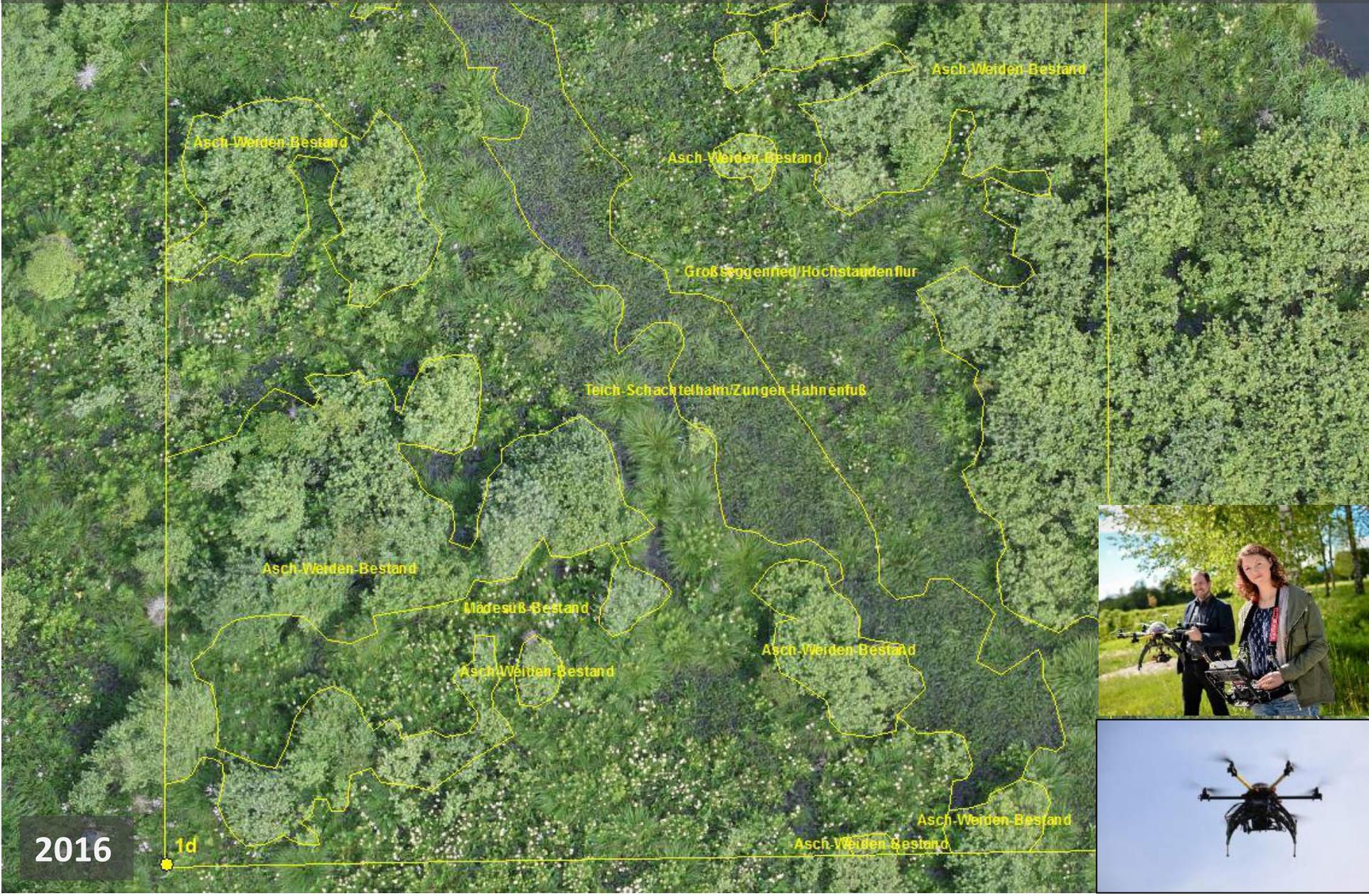
# Example No. 2: Hörfeld-Moor (Styria, Carinthia)

Long-term vegetation monitoring



# Example No. 2: Hörfeld-Moor (Styria, Carinthia)

Long-term vegetation monitoring



# fields of application I

## Conservation (Examples No. 1 & 2):

- ecological monitoring
- documentation of inaccessible or sensitive areas such as mires, water bodies, floodplains or rock sections
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## PR Material (Example No. 3):

- landscape panorama views for e.g.
  - information boards for theme trails
  - brochures and other printouts
  - homepages

# Example No. 3: Attractive images from a bird's eye view (PR)



National Park Kalkalpen (Upper Austria)



**Nature Park Karwendel (Tyrol)**



**National Park Hohe Tauern (Carinthia)**



**National Park Gesäuse (Styria)**

# fields of application II

## Documentation of land (-use); (Example No. 4):

- Forestry
- Agriculture
- Documentation of windfalls and other damage events

## Building projects (Example No. 5):

- Ecological construction supervision
- Documentation of roadbeds and river engineering measures
- Monitoring progress of construction work

# Example No. 4: Documentation of land (-use): Windfall



National Park Kalkalpen (Upper Austria)

# fields of application II

## Documentation of land (-use); (Example No. 4):

- Forestry
- Agriculture
- Documentation of windfalls and other damage events

## Building projects (Example No. 5):

- Ecological construction supervision
- Documentation of roadbeds and river engineering measures
- Monitoring progress of construction work

## Example No. 5: Ecological construction supervision



Quarry near Villach (Carinthia)

An aerial photograph of a clear, green body of water. In the upper left, two divers in black wetsuits and blue fins are swimming. In the lower center, a red motorboat with several people on board is moving. The water is very clear, showing the sandy bottom and some dark patches of vegetation or rocks.

**Thank you for your  
attention!**

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