

# hy-ARC-VEG: hyperspectral method development for ARctic VEGetation biomes

## Objectives:

- to derive vegetation parameters for tundra - hyperspectally based **vegetation indices, leaf area indices (LAI), fAPAR**
- to derive BRDF characteristics for the low-growing tundra biomes

## Duration:

- 01.07.2010 – 30.06.2013

## Products / Parameters:

- hyperspectally based **vegetation indices, leaf area indices (LAI), fAPAR** for tundra
- **BRDF** for tundra biomes



Gefördert durch:



Bundesministerium  
für Wirtschaft  
und Technologie

aufgrund eines Beschlusses  
des Deutschen Bundestages

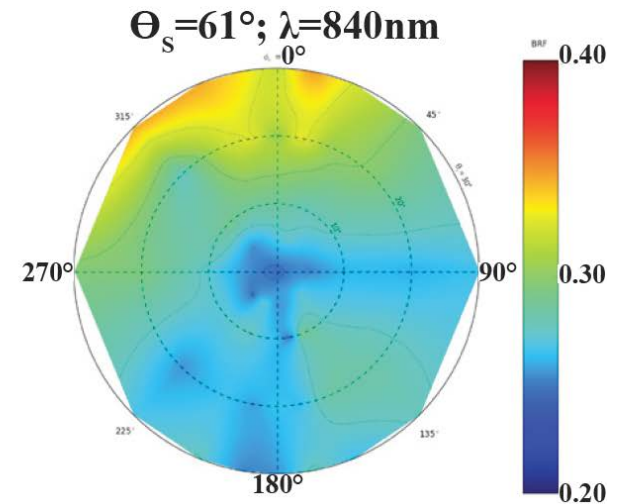


## Added Value (quantitative /qualitative):

- Vegetation parameters (**VI, LAI**) are crucial parameters for the modelling of **water and heat fluxes into the ground and into the atmosphere**  
(modelling of permafrost, fluxes of heat and water, climate modelling)
- The vegetation parameters **vegetation index, leaf area index and fAPAR** are crucial parameters for the modelling of **biomass and photosynthetic activity**  
(modelling of carbon fluxes)

## Additional:

- Project Areas: Yamal (Western Siberia), North Slope (Alaska), Lena Delta (Eastern Siberia)
- EO data source: CHRIS/Proba, MODIS, MERIS
- Validation applied: EnMAP



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