# Project Content

Analysis of simple propagation models, including existing literature on near-ground propagation models.

* FSPL
* Log-distance based path loss
  + 1-slope
  + 2-slope
* Plane earth
* FSPL with blocking factor

Determining a suitable measurement setup and conducting a measurement campaign to acquire data for development of near ground propagation model.

* Determine relevant factors
  + Height of TX and RX
  + Distance
  + LOS
  + Environment ( buildings, grassland, surface, vegetation)
  + Fresnel zone
* Measurement of radiation pattern with and without ground plane

Analysis and system performance evaluation of chosen ISM-band platform

* System description
* Estimation of system parameters
  + Gains
  + Noises
  + Transmitted power
  + Sensitivity

Link-budget system calculations using one (or more) well established (simple) propagation models to enable comparison with the developed near-ground propagation model.

* Compare with
  + (FSPL)
  + Plane earth
  + 2-slope