BiTZ – Biodiversity in transition zones

# Purpose

BiTZ analyses the importance of transition zones in agricultural landscapes for maintaining and improving biodiversity of different functional types.

# Entities, state variables and scales

* Spatially explicit model: 300x300 grid with 1 cell ~10m
* Different land use classes: forest, grassland, urban, water, agriculture, matrix
* General parameters:
  + File names: FT input, Landscape, LU suitabilities per FT, Patch definition
  + T\_max, y\_max, x\_max
  + Nb LU classes
  + Width of transition zone
* Cell variables:
  + xy coordinates, LU class ID, patch ID, transition zone, list of FT populations in cell
* FT population list include:
  + Xy coordinates, population capacity, transition zone effect, current population size, new population size, number of emigrants, number of immigrants
* FT traits:
  + Maximal growth rate R, capacity compensation b, interspecific competition c, transition zone impact
  + Mu, omega, alpha, dispersal distance sd + mean
  + LU suitability

# Process overview and scheduling

# Design concepts

## Basic principles

## Emergence

## Adaptation

## Interactions

## Stochasticity

# Initialisation

# Input

# Submodels

## Growth

## Dispersal

## Disturbances

## Management options