Terafor: DEXi-based multicriteria model to consider all multiple functions of tree formations in temperate agroforestry area

Vigan Martin, Deconchat Marc, Ottogali Céline, Simon Laurent
1 – UMR Dynafor, INRA de Toulouse, Auzeville-Tolosane, France
2 – UMR LADYSS, Université Paris 1 Panthéon-Sorbonne, Paris, France

How do you consider all functions of tree formations?

1) Terafor model:
- to represent the potential functions of tree formations

2) Terafor model:
- to evaluate the effective functions of tree formations

Forester
- Wood production
- Multiple wood products
- Adding value to wood
- Forest management
- Landscape planning

Stock breeder
- Picking
- Obstacle to land-use planning
- Competition with crops

Crop grower
- Agricultural activities and land uses
- Farm soil management
- Beekeeping

Beekeeper
- Inhabitant
- Social and cultural activities and organisations

Inhabitant
- Ecosystem functioning
- Soil and biocenoses dynamics
- Regional climate

Community
- Affluence
- Travel destination

Obstacle to
land-use planning

Competition
with crops

Timber

Construction of the model:
- more than 40 scientific and technical works consulted
- 14 experts interviewed
- focused on stakeholders

Result:
- 77 functions inventoried
- 3 aggregation levels
- 36 supra-functions

Towards a discussion-making tool
- to design shared projects involving trees in agricultural areas
- to facilitate the stakeholders’ participation

* Correspondence author: martin.vigan@toulouse.inra.fr