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LA CHARTE

OPTMix
Oak Pine Tree Mixture

XX or institution or research unit
Name of the Principal Investigator (PI)
XXXX

Objet : Scope and use of data set or sampling on the OPTMix research facility

Nogent sur Vernisson, le ------ 21

To whom it may concern,

This charter details the overarching objectives of the OPTMix long-term research facility as well as the scope and use of the data sets collected using the research facility.

1. **OPTMix description.** OPTMix (Oak Pine Tree Mixture) is an experimental network of 33 instrumented plots in the state forest of Orléans over a total area of 40 ha. The OPTMix research facility allows to study the following factors in a partially cross-factorial design: stand composition, stand density, with-without forest ungulates. Each plot covers an area of 0.5 ha where all trees have been mapped, and is surrounded by a buffer zone approximately 20 meters wide. Most of the plots are equipped with microclimate sensors (measurement of temperature, relative humidity, radiation, rain, soil moisture at 3 depths, water table using piezometers). In addition, data are available on tree growth, plant cover and diversity, biodiversity for some taxa, ungulates, small rodents, soil characterization, forest regeneration, carbon and nutrients. The study of all these factors combined is rarely done at once and on the same forest that makes this site unique. Our objectives are to study the effects of stand composition (pure sessile oak, pure Scots pine, mixed pine-oak), stand density (number of trees/ha), and presence of wild ungulates (roe deer, wild boar, red deer) on the ecosystem functioning such as tree productivity, resource use and allocation (including water and nutrients), biodiversity and understory vegetation dynamics including regeneration. OPTMix aims to improve knowledge on the functioning of mixed forests in temperate regions with direct applications to forest management, especially in the context of climate change.

2. **Scope and use of data set collected by the Principal Investigator (PI)**. PIs that collect samples or data on the OPTMix study plots retain in all circumstances the intellectual property rights of the data and material collected in the field as well as data retrieved from subsequent laboratory analyses. PIs that use the OPTMix research facility, including their collaborators, are asked to respect the rules set up for users of the OPTMix research facility in order to respect ongoing experiments and sensors on the sites and study plots. The PI is free to dispose, as he wishes, the data and results for communication activities, industrial protection and/or valorization. Data collected by the PI are saved and managed by the PI, and he keeps the entire properties of the data but the PI also has to give a copy to the head of the OPTMix research facility. This copy will be added to and saved in the OPTMix database. The members of EFNO OPTMix research team or collaborators could use these data only after the acceptance of the PI and under their conditions.

3. **Scope and use of data set from the OPTMix network**. PIs can reclaim samples or data already collected on the OPTMix research facility. It should be note, however, that INRAE retains in all circumstances the intellectual property rights on data collected in the field as well as data retrieved from laboratory analyses by the members of the EFNO OPTMix research team. The data are saved and managed by INRAE, and the PI is authorized to use, combine the data he/she asked. The PI is free to dispose, as he wishes, the data and results for communication activities and/or valorization, as long as the OPTMix steering committee has given its acceptance and that at least one co-authorship from the EFNO OPTMix collaborators is granted for providing the samples or data. Furthermore, the assistance of support will be cited in the Acknowledgement or Materials & Methods section as

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proposed in appendix 1. The PI is not allowed to transfer the data, even partially, to another person or unit, and it should not be used for another objective than the one data were asked for.

4. Communication and publication rules

Before any communication and/or publication project, the OPTMix committee must be informed. As the OPTMix research facility (including data and access to plots) is based on collaboration, and are free, at least one member of the EFNO OPTMix research team is granted co-authorship according to he/she provisions of samples, data, or any support during the field measurement campaign. Therefore, OPTMix committee reserves the right to request that one or more representatives of its EFNO OPTMix research team be included as a co-author, depending on the importance of the contribution in the data collection or management, or in the published work. In practice, the PI willing to publish must systematically make contact with OPTMix committee, in order to present the project and discuss the justification or not of integrating co-authors. The committee disseminates information within the EFNO OPTMix research team as soon as possible, centralizes opinions and communicates to the PI the list of EFNO OPTMix research team members who have significantly participated in the data collections or management of data used by the PI, and expressed the wish to participate in the communication and/or publication. The presence of a member of EFNO OPTMix research team as co-authors does not substitute for the obligation to mention the origin of the data as defined below. The assistance of support should be cited in the Acknowledgement or Materials & Methods section as proposed below (Appendice 1).

5. The PI demand:

□ The PI would like to use data from the OPTMix network.
Please precise the type of data needed in appendix 2.

□ The PI would like to take new data and/or samples from the OPTMix network.
Please fill in the “New-experiment form” appendix 3.

□ The PI would like to use samples from the OPTMix network

Nathalie Korboulewsky
Directrice de recherche, for the OPTMix commitee

The PI

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APPENDIX 1: Example of text for the Acknowledgement or Materials &Methods section

If the entire or most of the study was carried out on the OPTMix:

> "*The experimental site OPTMix (https://optmix.inrae.fr/) where our study took place was installed and equipped by INRAE EFNO thanks to the Centre Val-de-Loire region, the Loiret and the French National Forest Office.*
>
> *The site belongs to the French national research infrastructure, ANAEE-F (http://www.anaee-france.fr/fr/), and is included in the SOERE TEMPO (https://tempo.pheno.fr/). The site is also in the framework of the ZAL (LTSER Zone Atelier Loire) and the GIS Coop network (https://www6.inra.fr/giscoop/), which is supported by the French Ministry for Agriculture and Food."*

If only a small part of the study was carried out on the OPTMix:

> "*The experimental site OPTMix (https://optmix.inrae.fr/) was installed and equipped by INRAE EFNO thanks to the Centre Val-de-Loire region, the Loiret and the French National Forest Office, and belongs to networks ANAEE-F (http://www.anaee-france.fr/)"*

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APPENDIX 2: OPTMix request form for data already collected.

Category	Yes	No
Meteorological data, and microclimatic data (rain, air humidity and T°, radiation…)		
Stand description (tree number, basal area….)		
Tree increment or tree size		
Soil description, and physico-chemical analysis		
Soil water humidity, and piezometer data		
Ungulates and rodent data		
Biodiversity and understorey cover		

Date of the request	
Last Name, First Name	
Position / Title	
Institute or organisation	
E-Mail, Phone number	
Project title and acronym	
Other researchers or partners in the project *Collaboration with a researcher from INRAE EFNO*	
Aims (max 10 lines)	
Site, plot or tree data	
List of variables (if known in more details than in the table above)	
Dates or intervals (e.g. every data from XX to XX, month mean for 2020…)	

By submitting this form, I certify that I have read and accepted the terms of the charter of the OPTMix network for data use and access to plots.

Date: Signature:

la science pour la vie, l'humain, la terre

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Rejoignez-nous sur :
Site internet du centre

APPENDIX 3 - OPTMix request form for plot access:

Date of the request	
Last Name, First Name	
Position / Title	
Institute or organisation	
E-Mail, Phone number	
Project title and acronym	
Other researchers or partners in the project Collaboration with a researcher from INRAE EFNO	
Aims (max 10 lines)	
If this is a request for a new experiment with access to one or more experimental plots, complete below	
Specify what the experiment involves	☐ no disturbances ☐ Disturbances and / or destructive samples (samples of soil, vegetation, etc.) ☐ observations or measurements ☐ marking and / or handling with a residual effect (eg radioactive elements) ☐ trapping ☐ Installation of equipment - if yes, specify ☐ materialization - if yes, specify type and temporary or permanent)
Methods	*Description of the Material and Methods and impact on the environment (detail in particular where and how the samples are taken, especially if they are destructive, for new installations of apparatus or plots indicate the type and impact on the environment and the path to be taken by agents, etc.)*

Project dates (start, finish)	
Type of plot access:	*Time period and frequency? Planned field observations, measurements or operations (equipment, samples to be collected, …)* *Complete the table below by crossing out the plots not concerned*

	Pin pur			**Mélange pin-chêne**					**Chêne pur**		
Densité	Moyenne	Faible	Faible	Forte	Moyenne	Faible	Faible	Faible	Moyenne	Faible	Faible
Accès ongulés	Ouverte	Ouverte	Fermé	Ouverte	Ouverte	Ouverte	Fermé	Sélectif	Ouverte	Ouverte	Fermé
											
Répétition 1	83-1	83-2	83-3	108	57-1	57-3	57-4	57-2	12-3	12-2	12-1
Répétition 2	200-1	200-2	200-3	178	216-4	216-1	216-3	216-2	214-1	214-2	214-3
Répétition 3	333-3	333-2	333-1	255	598-4	598-1	598-2	598-3	593-1	593-2	593-3
Parcelles en supplément											

Other information	
Financing sources	
Informations additionnelles	
Other information or observations	

By submitting this form, I certify that I have read and accepted the terms of the charter of the OPTMix network for data use and access to plots.

Date: Signature:

Page reserved for OPTMix stearing committee.

Request view by	Date	Evaluation	Signature
	_ _ / _ _ / 20_ _		

Comments and recommendations from the OPTMix committee :

Date: Signature :

Document (s) to be returned by applicants:

- Details of the operating mode
- Type and location of measurements
- Data if applicable (depends on the nature of the collaboration)

OPTMix referent (s) to be consulted before setting up the experiment:

Name	Firsname	Tel	Email