

Collaborations between
METLA
&
INRA
EFPA Research Department
Forest, Grasslands and Freshwaters Ecology

Present situation and perspectives

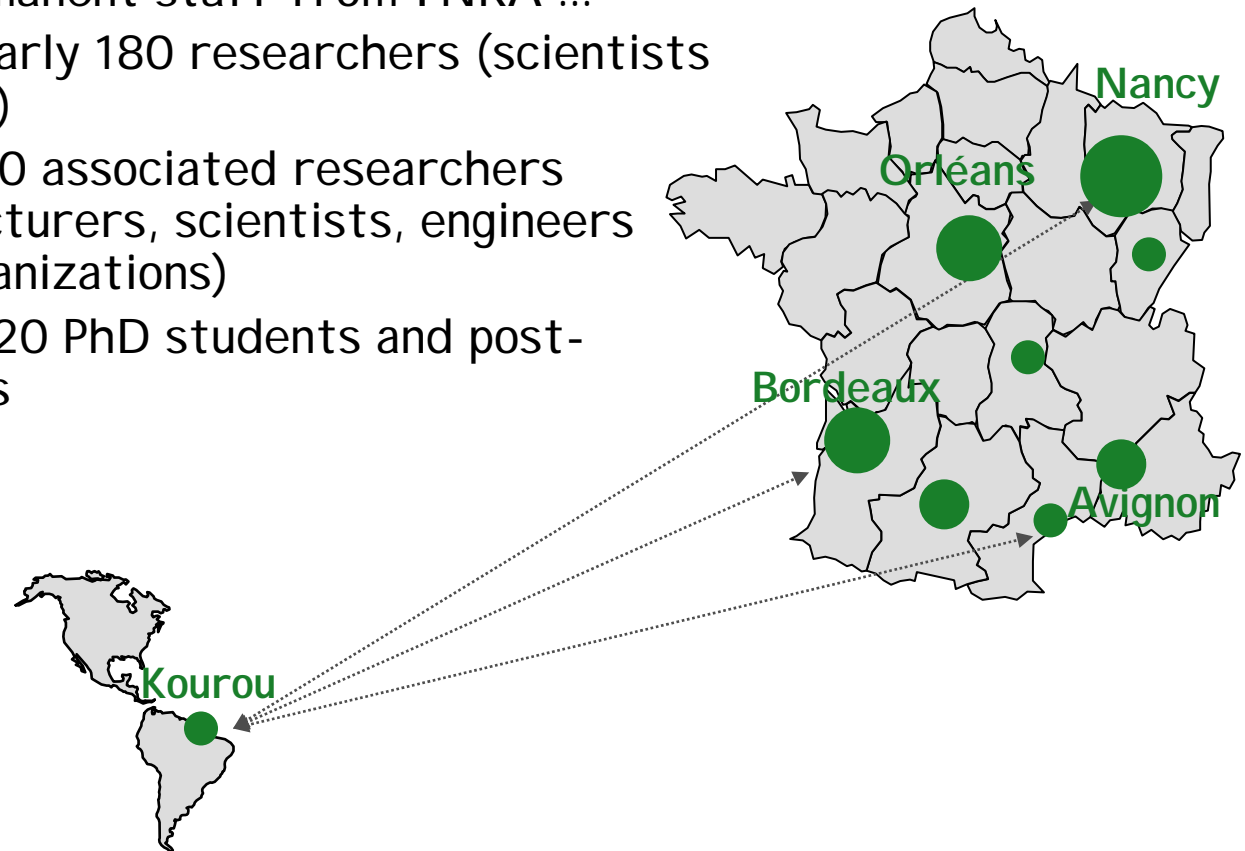
Finnish-French bilateral Forest Meeting
Abbaye de Sorèze 9-11 mars 2010



Forest research at INRA

A network of more than 20 research units

- About 380 permanent staff from INRA ...
 - including nearly 180 researchers (scientists & engineers)
- ... plus around 50 associated researchers (professors, lecturers, scientists, engineers from other organizations)
- ... plus around 120 PhD students and post-doctoral fellows



Present collaborations, from occasional to structural (1)

- ✓ Cost action E38 (woody root processes). Biogeochemical cycles in pine stands. and Cost action FP0803 'Belowground Carbon turnover in European forests (from May 2009, fine root turnover, oligotrophic forest ecosystems). **TCEM Bordeaux**
- ✓ Phenology and crown conditions in ICP sites (forest monitoring, common expertise **EEF Nancy - Punkaharju Research Station**)
<http://www.metla.fi/eu/icp/phenology/index.htm>).
- ✓ Co-operative mycorrhizal fungi project (Norway Spruce). New research direction at Metla controlled mycorrhization of spruce plantations. **"Development of commercial inoculum of spruce growth promoting ectomycorrhizal fungi"**
With IaM Nancy.
- ✓ Emerging diseases, rodents as reservoirs of zoonoses. (EDEN FP6, Eden-next application under assessment). **Heikki Henttonen (Metla + Haartman institute)**
with CBGP Montpellier.

Present collaborations, from occasional to structural (2)

- ✓ Structure - function modelling of trees (light interception, hydraulic function, growth). AMAP Montpellier, Ephyse Bordeaux
- ✓ Influence of climatic factors on wood formation dynamics of temperate and boreal conifers. Woven project within WoodWisdom ERANET. Collaboration Harri Mäkinen (METLA - Vantaa) with LERFOB Nancy.
- ✓ Forest Economy. A Protocol and Database for the Environmental Valuation of French/European Forests. To build a database of existing forest environmental valuation studies.
Starting EU project: NEw Ways to value and market FOREst EXternalities (NEWFOREX) - 7 PCRD Collaborative Project.
Collaboration METLA (Liisa Tyrväinen) and LEF Nancy

Present collaborations, from occasional to structural (3)

Genetics and tree breeding, partners in successive EU projects :
INRA Bordeaux - INRA Orléans INRA Avignon INRA Nancy - METLA.

- ✓ NoE EVOLTREE (shared Finnish and French Intensive Study Sites), FP6 (METLA runs ISS in Punkaharju). Which framework after 2010 (commitment for lasting infrastructures ? EFI Programme ?
- ✓ Concerted action TREEBREEDEX (FP6) creation of a (virtual) European Centre of tree breeding, common breeding programmes & data bases. Luc Pâques (INRA Orléans) member of METLA's Scientific Advisory Board.
- ✓ Collaborative project TREESNIPS. Association between molecular and phenotypic polymorphisms.

Perspectives, strengthening the relationships

A relevant and realistic thematic frame

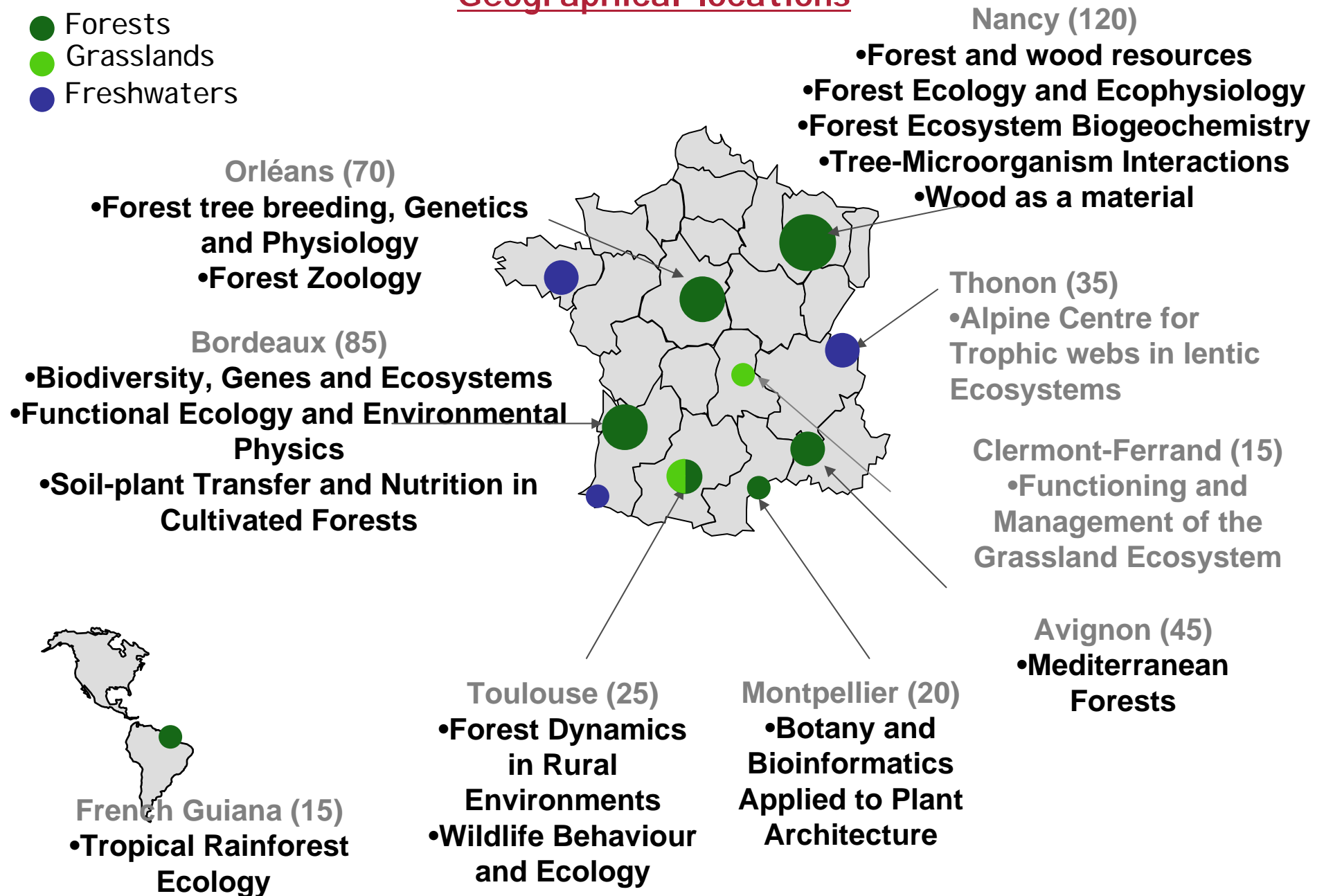
Four research areas in the context of climate change effects

- ✓ Forest genetics and genomics.
- ✓ Wood properties & quality (anatomical, physical, chemical, environmental and genetic determinants, modelling)
- ✓ Expanding and emerging diseases and pests.
- ✓ Tree-Mycorrhizae interactions.
- ✓ Bioenergy (to be built)

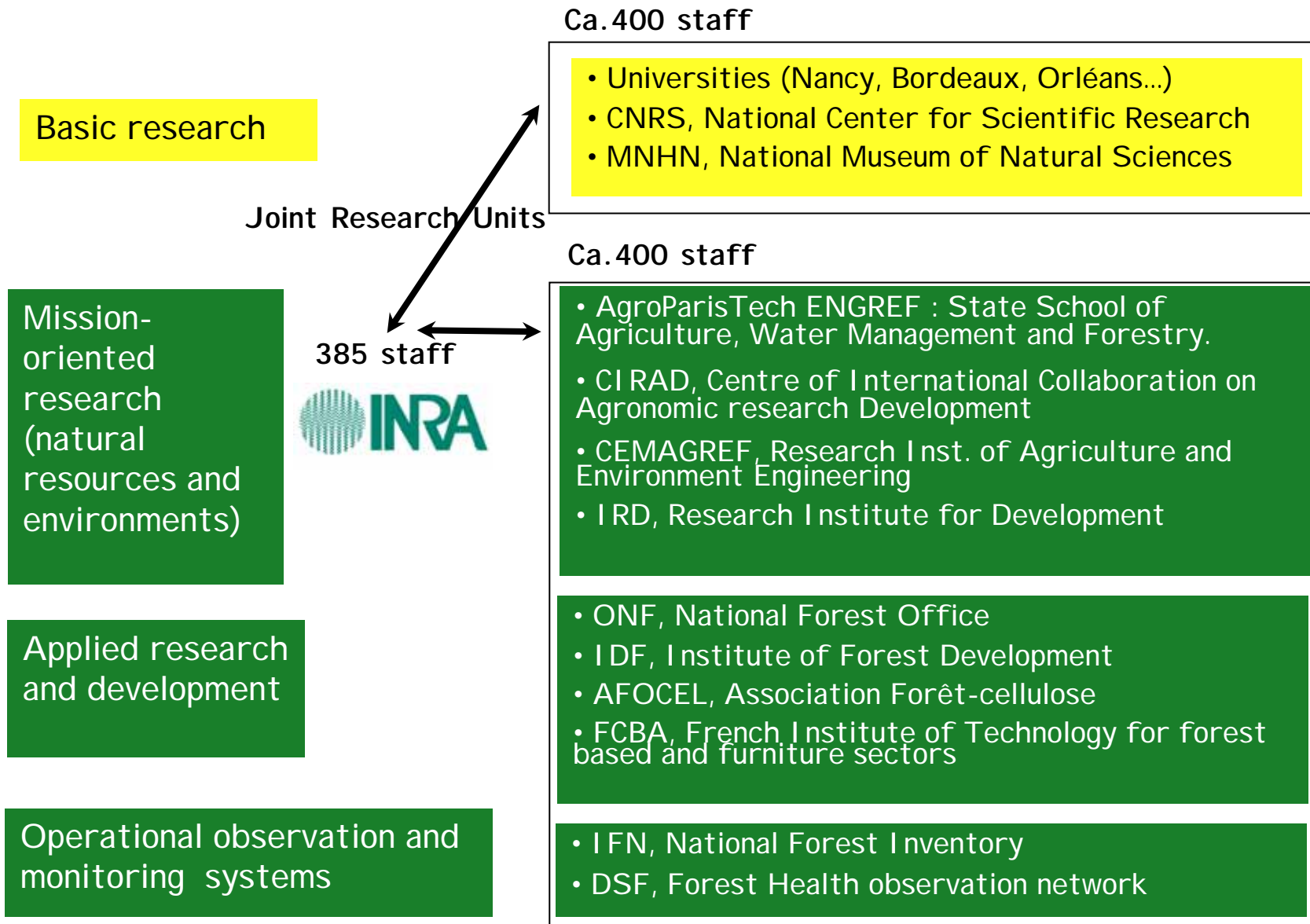
By which means ? Exchange of people, FP7 of EU, Forest based sector Technological platform, cooperation with third parties...

Geographical locations

- Forests
- Grasslands
- Freshwaters



Forest sector based R&D system in France



Forest sector based R&D system in France

R&D coordination
structures

- ECOFOR, Public Interest Group that co-ordinates research on functioning of forest ecosystems, forest management and monitoring. Network of nine scientific and professional organisations (IFN, INRA, CEMAGREF, IDF, CIRAD, CNRS, ENGREF, ONF).
- FTP/NSG France. National support group France of the Forest-Based Sector Technology Platform (CTP, FCBA, IDF, ECOFOR, INRA).