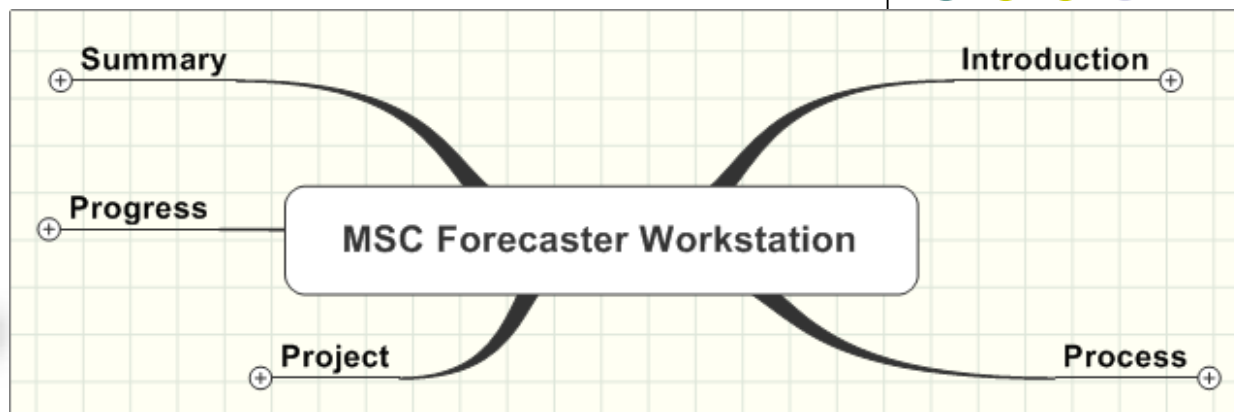Meteorological Service of Canada
Service météorologique du Canada

# MSC Forecaster Workstation

## 9th Operational Workshop
## ECMWF, Nov 2003

Summary

Introduction

Progress

MSC Forecaster Workstation

Project

Process

**NinJo**
Workstation Project
Projet de poste de travail

# Introduction



**Introduction**
- Goal of the presentation ⊕
- MSC environment ⊕
- Objectives ⊕
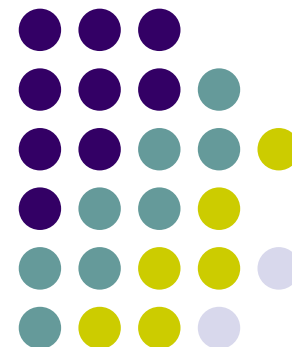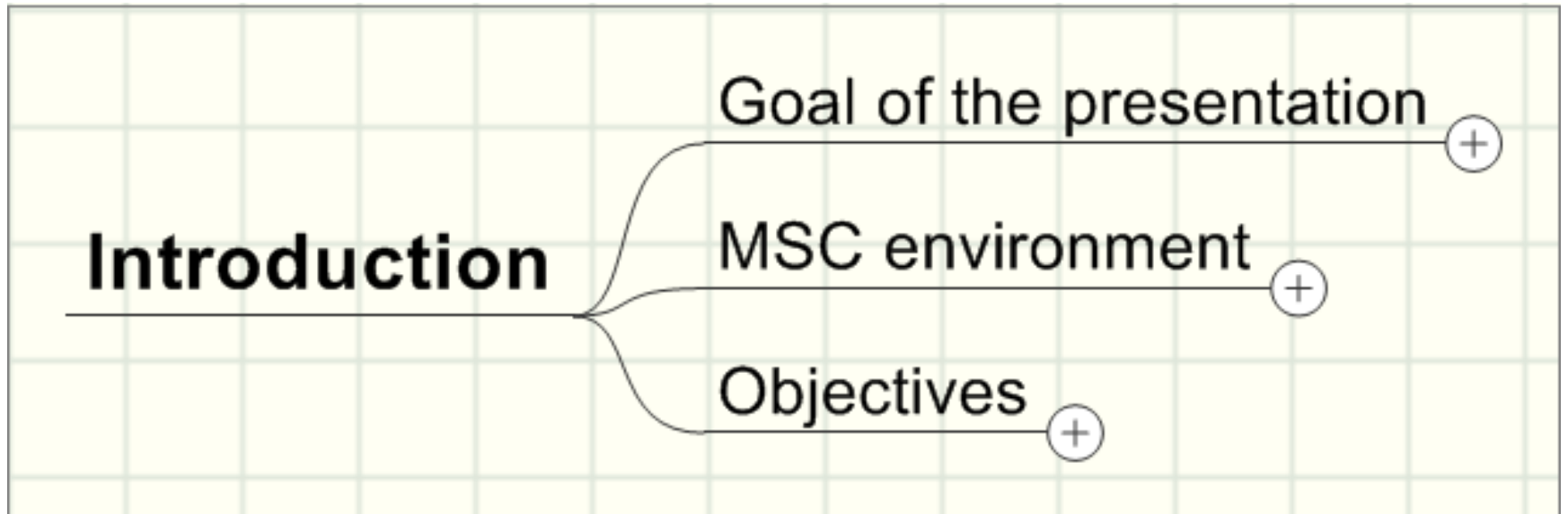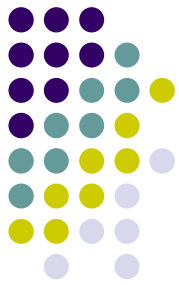
**MSC is part of NinJo consortium** → How did we get there?
How is it working?

# MSC environment

- Organizational

- Software aging

- New data sources

- Forecasters – production of products to meet many needs

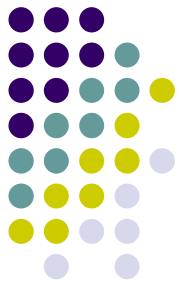- Forecasters not writing products but interacting with data

# Objectives

- Unify the interface
  - Integrated applications
- Reduce duplication
- Platform for future development
  - Applications hitting the wall
- Need to meet new needs due to restructuring

# Process
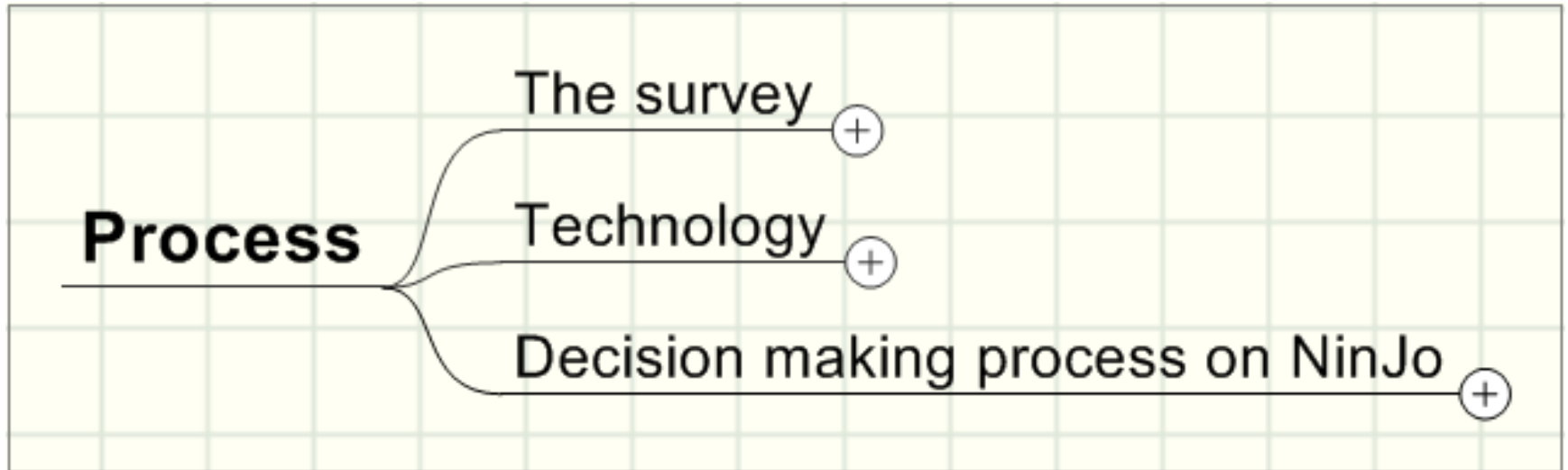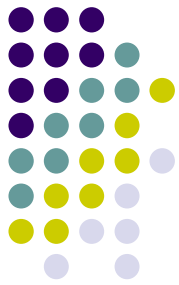
# The internal survey

- 40+ applications
  - Most software used only in office which built it
  - ~ 5 applications used across the country
  - Much duplication
  - No standards
  - Poor software support
- Data structure an issue
  - Applications copy data for use
  - Not clear on what is "official"
  - Hard to incorporate new data

# Design team work

- Assessed systems from an architectural point of view:
  - How the systems are organized
  - How functional components are distributed
  - How the components interact
- No system fully met our requirements as it stood
- NinJo was the best option:
  - Has a new, well designed architecture
  - Is still in the development stage so MSC can affect the process to get what we need
  - A lot of the visualization work is already done
  - Presents practical hurdles  of working in an international team
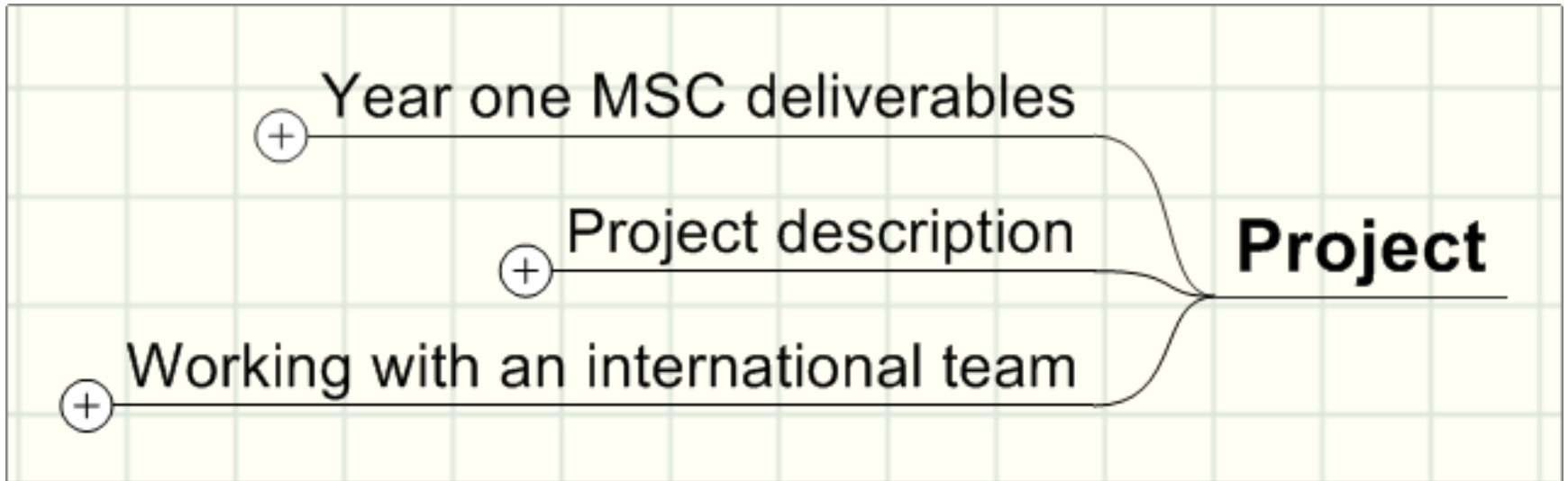- Technology

# Decision making process on NinJo

- Opportunity
  - Timing
  - Same direction we would have gone
  - Savings
- MOU conditions
  - Not slow down the project
  - Contribute for past work of consortium
  - Contribute at equal rate to the end of the project

# Project



Year one MSC deliverables

Project description

Working with an international team

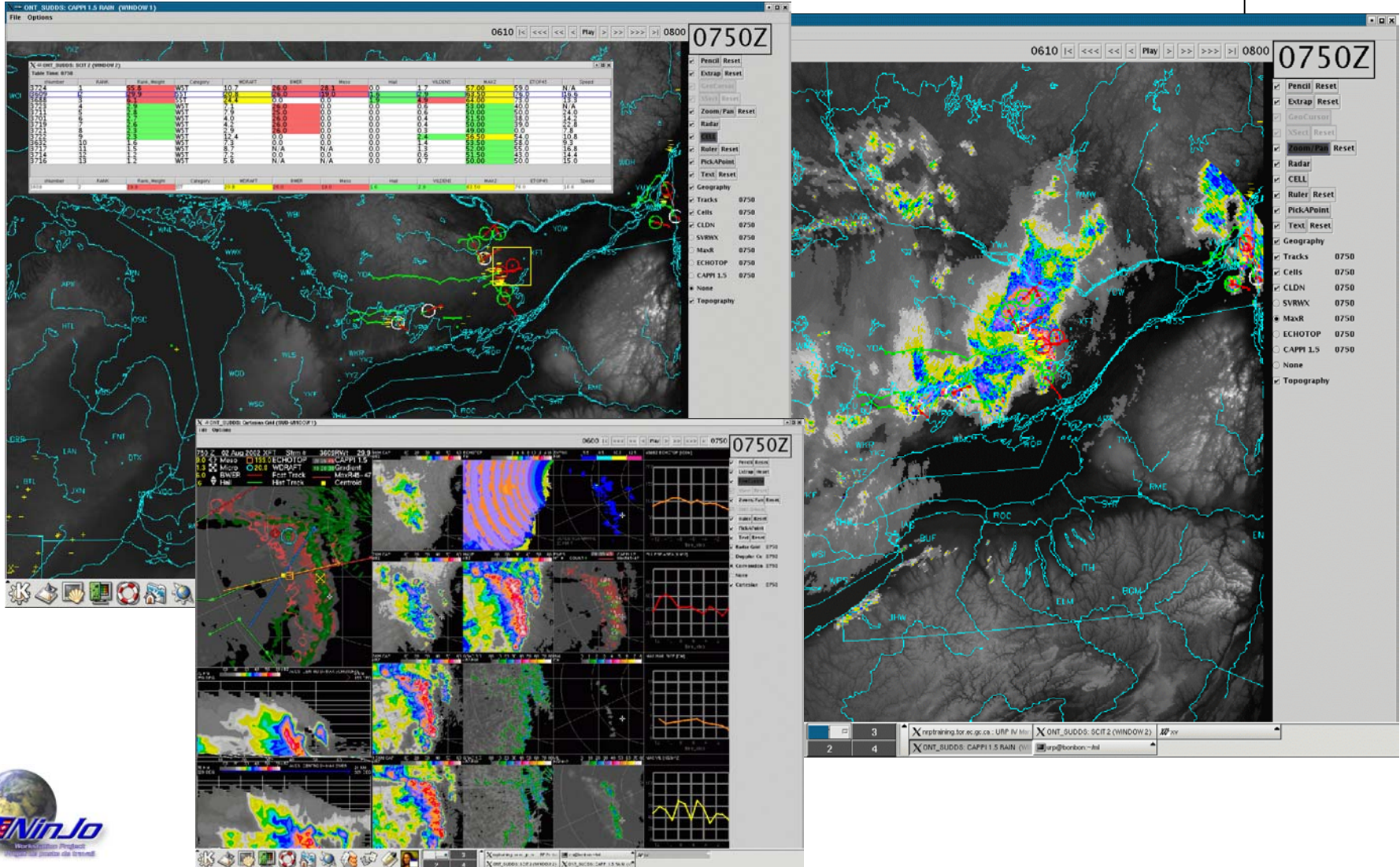Project

# **Year one MSC deliverables**

- Radar processing (CARDS system)
  - Processing volume scans
  - Integration of many radars in display
  - Extensive use of algorithms
- Interactive Graphics
  - Preparation of products such as Sigwx charts
- Implementation
  - Work within MSC environment
  - Order brought to data by related project

NinJo

# CARDS System

# Project description

- Project includes ~ 25 staff; $1.2M  ($2.2M)
  - "Business side"
    - User committee
    - Evaluation team
  - "Informatics side"
    - Teams for Radar, Interactive Graphics and Implementation

- Schedules

  - Vr 0.7 being evaluated

  - Vr 1.0 December 2004

  - January 2005 start of implementation

# Working with an international team

**Challenges**
- Vision
- Requirements
- Specifications
- Processes/organizational culture
- Communications
- Team building
- Task assignments

**Cross Atlantic co-operation**
- Bridgehead very effective (not cheap)
- Technology supports information sharing
- Tele-conferences
- Software control
- Adopting effective processes
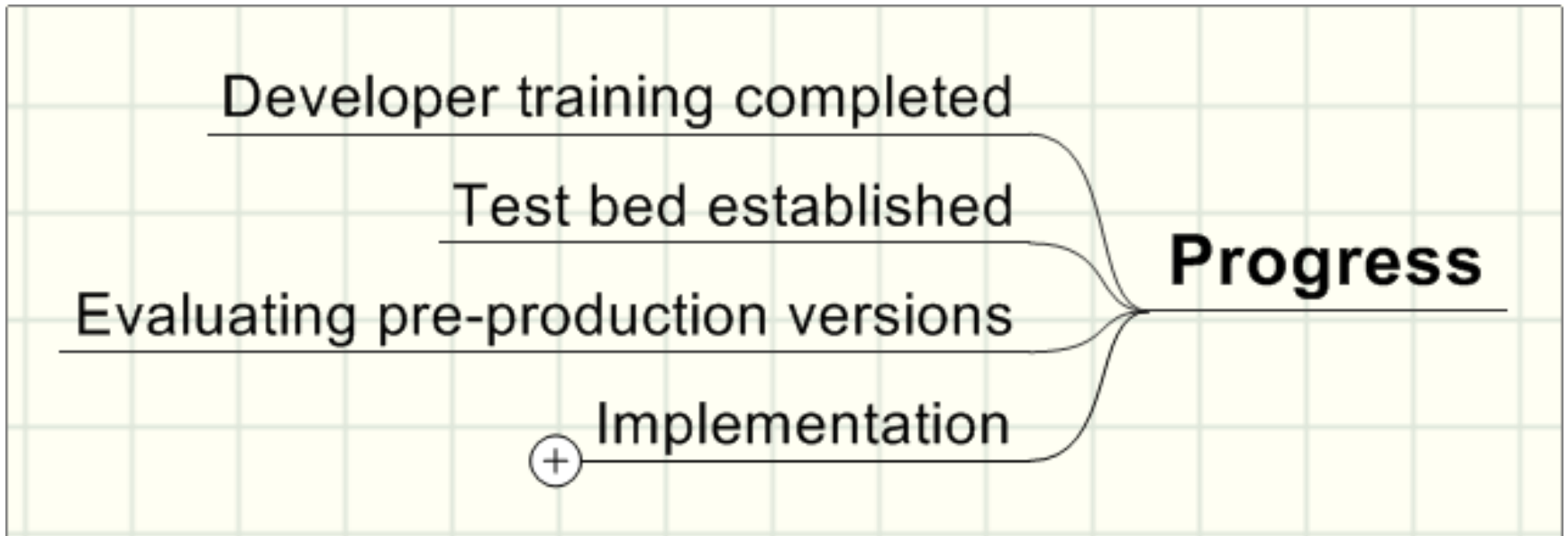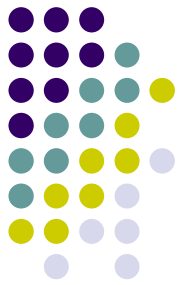- Language working for MSC

**Plus**
- Work in progress
- Co-incidence of objectives
- Design and structure
- Buy into working standards
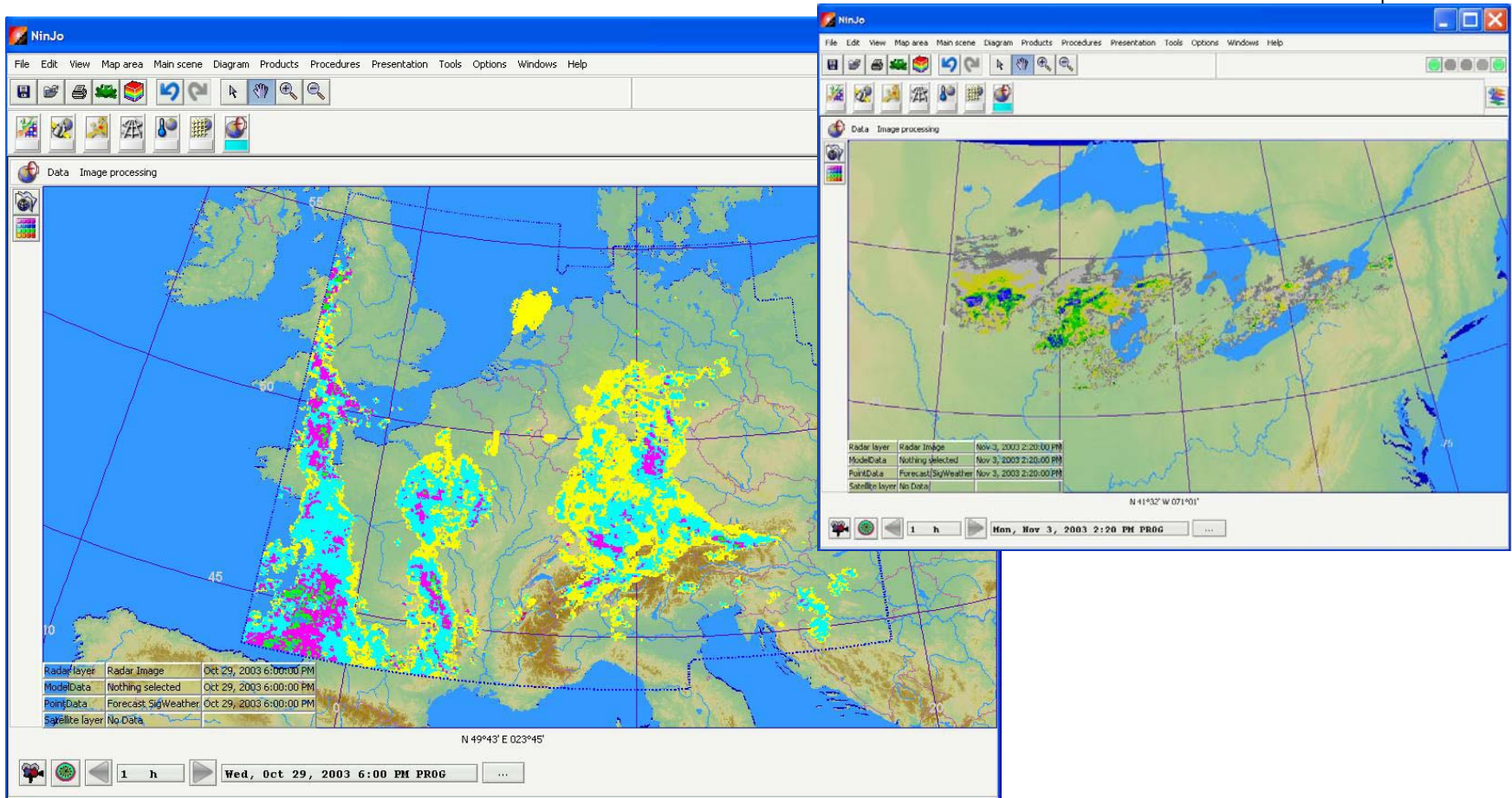- Leverage effort
- New ideas and approaches

**Negative**
- One of 5 partners
- Dependence on others seeing the problem your way
- Cost of travel and telecom
- Team Building
- Communications
- Currency fluctuations

NinJo

# Progress



Developer training completed

Test bed established

Evaluating pre-production versions
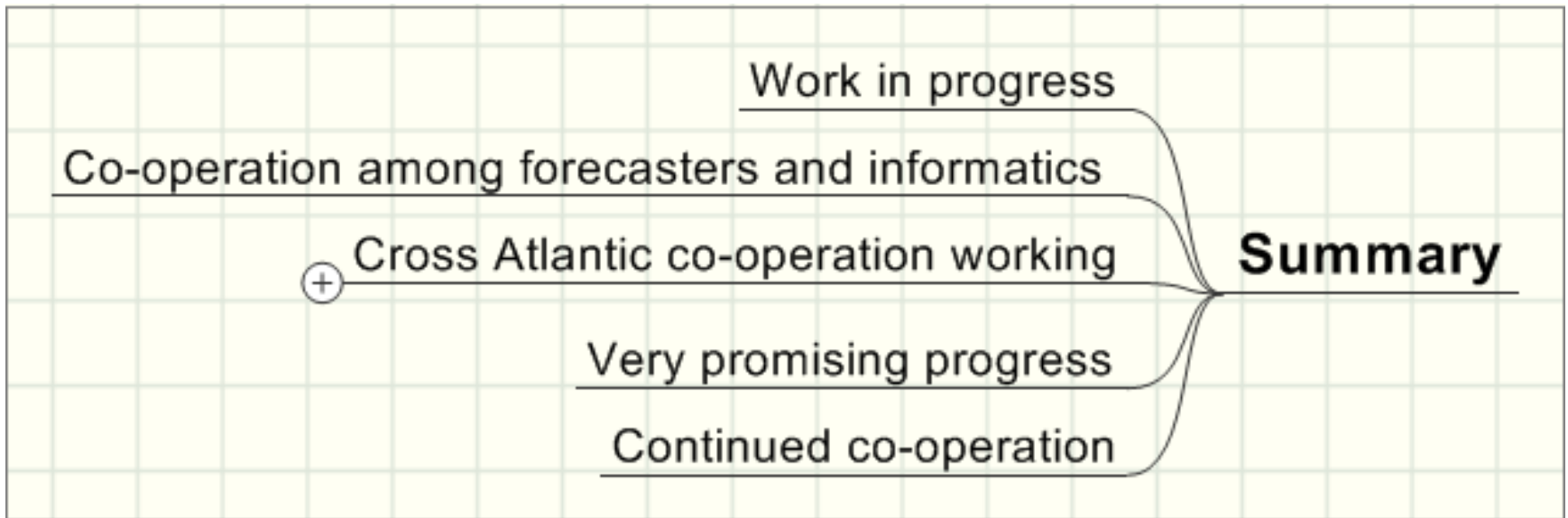
Implementation

**Progress**

# Radar in NinJo 0.7

# Evaluation Team

- Evaluated NinJo 0.61and set for NinJo 0.7
- Developed evaluation table ~ 250 functions
  - Priority
  - Functionality
  - Speed / Performance
  - Usability
- Implementation
  - Training
  - Techniques development
  - Kill lists

# Summary

# MSC Workstation Team



Michel Flibotte    Richard Desjardins    Trevor Falla    Martin Lehman    Paul Van Rijn    Tom Gibson    Norm Paulsen    Dan Magosse
Michel Grenier    Jean-Philippe Gauthier Bilodeau    Tom Ostry    Samuel Sieb    Bob Paterson    Paul Joe
Jack Dunnigan    Aiman Younis    Ronald Frenette    Karsten Kehler    Lorne Potter    Jean Brunet    Aaron Chen
Steve Lapczak    Verne Lorde    Bryce Lee    Wendy Yuen    Anthony Marzotto    Marie Falla