

Title: Mapping of managed deforestation and forest area mapping

Product Leader: Shaun Quegan

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Product Team (proposed members):

- Thuy Le Toan (CESBIO, France)
- Chris Schmullius (U. Jena, Germany)
- Yadvinder Malhi (Univ. of Edinburgh, UK)

Agreement status: Ready to sign

Preferred agreement type (individual/institutional):
Institutional

Title: Mapping of managed deforestation

Project objective(s):

- Develop fully specified processing chain to map managed deforestation in boreal, temperate and tropical regions using dual-pol PALSAR data.
- Produce regional maps of managed deforestation: annual cut (temperate: UK, SW France), annual deforestation (tropical: Vietnam, Brazil), decadal clearance (boreal: Siberia).
- Evaluation of accuracy of mapping methods based on
 - (a) theory;
 - (b) experiment, using regions with good collateral data.

Title: Mapping of forest area

Project objective(s):

- Develop fully specified processing chain to map forest area in boreal, temperate and tropical regions using dual-pol PALSAR data.
- Produce regional maps of forest area: temperate (UK, SW France), tropical (Vietnam, Brazil), boreal (Siberia).
- Evaluation of accuracy of mapping methods based on
 - (a) theory;
 - (b) experiment, using regions with good collateral data.

Mapping of managed deforestation and forest area

Prototype Area 1: N. England & Scotland

Prototype Area 1(a): SW France

Corresponding observation plan polygon(s): D4 (part)

No. PALSAR paths/coverage: ~ 3 passes

PALSAR request (Year 1-3): 18 passes (winter and summer for 3 years in dual pol mode). Preferably more in first year to assess environmental effects on methods.

Input data (EORC products): PALSAR dual pol image (Sigma-0, slant range, 50m, using both available incidence angles)

Ancillary data requests:

Mapping of managed deforestation and forest area

Prototype Area 2: Siberia

Corresponding observation plan polygon(s): A2

No. PALSAR paths/coverage: ~30 passes

PALSAR request

Year 1: 4 passes (spread over seasons, covering area with good ground data to assess environmental effects; for R&D)

Year 2-3: 30 passes (summer likely to be preferred) over A2 for application

Input data (EORC products): PALSAR dual pol image (Sigma-0, slant range, 50m)

Ancillary data requests:

JERS data in order to assess decadal change. Clearly co-operation with Gamma desirable for geocoding.

Mapping of managed deforestation and forest area

Prototype Area 3: Darlac (Vietnam) Area 4: Sector of Brazilian Amazonia (tbd)

Corresponding observation plan polygon(s): B2, G1 (part)

No. PALSAR paths/coverage: ~ 1-2 passes

PALSAR request (Year 1-3): 6-12 passes (winter and summer for 3 years in dual pol mode). Preferably more in first year to assess environmental effects on methods.

Input data (EORC products): PALSAR dual pol image (Sigma-0, slant range, 50m)

Ancillary data requests:

Mapping of managed deforestation and forest area

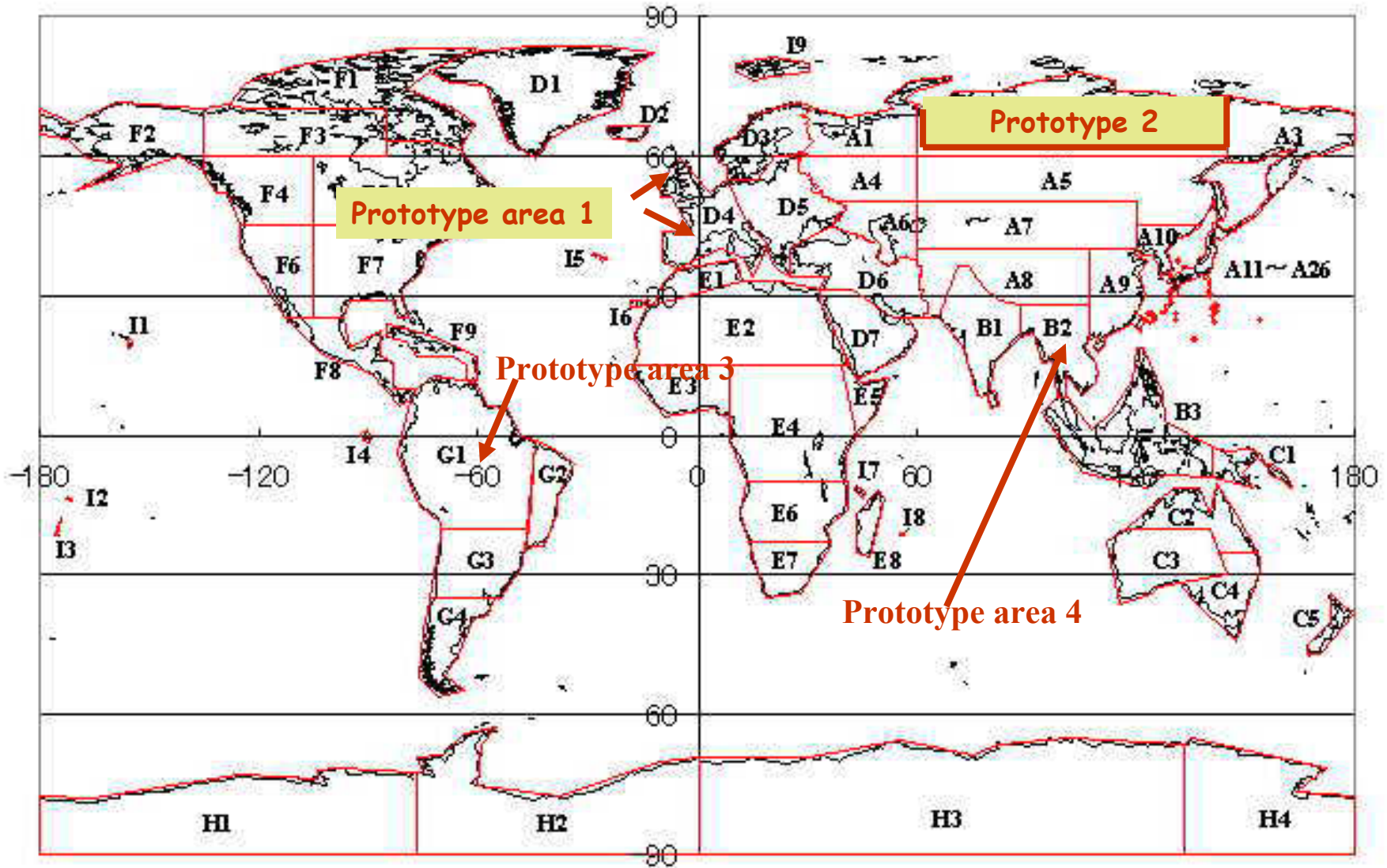
K&C Product Deliverables (by end of Year 3):

- Methodology for mapping
 - (a) managed deforestation
 - (b) forest area

using ALOS in boreal, temperate and tropical regions.

- Maps of annual cut (UK and SW France), annual forest clearance (tropical), decadal forest loss due to cutting (Siberia)
- Corresponding maps of forest area
- Quality assessment of derived maps

Mapping managed deforestation



Location of Prototype Areas