

Effect of Climate Change on a Highway Network

By John Thorp

How does that impact

- The Public
- The Highway Service

What does it really affect?

- Wind
- Temperature
- Rainfall

What is the Impact

- Key Service Areas
 - Winter Service
 - Trees and Vegetation
 - Materials and Resurfacing
 - Drainage and Structures

Winter Service

- Unpredictability
- Customer Expectations
- Highway Service Unavailable

What Measures

- Better Predictions
- Understanding risk management
- Working itself out of a job

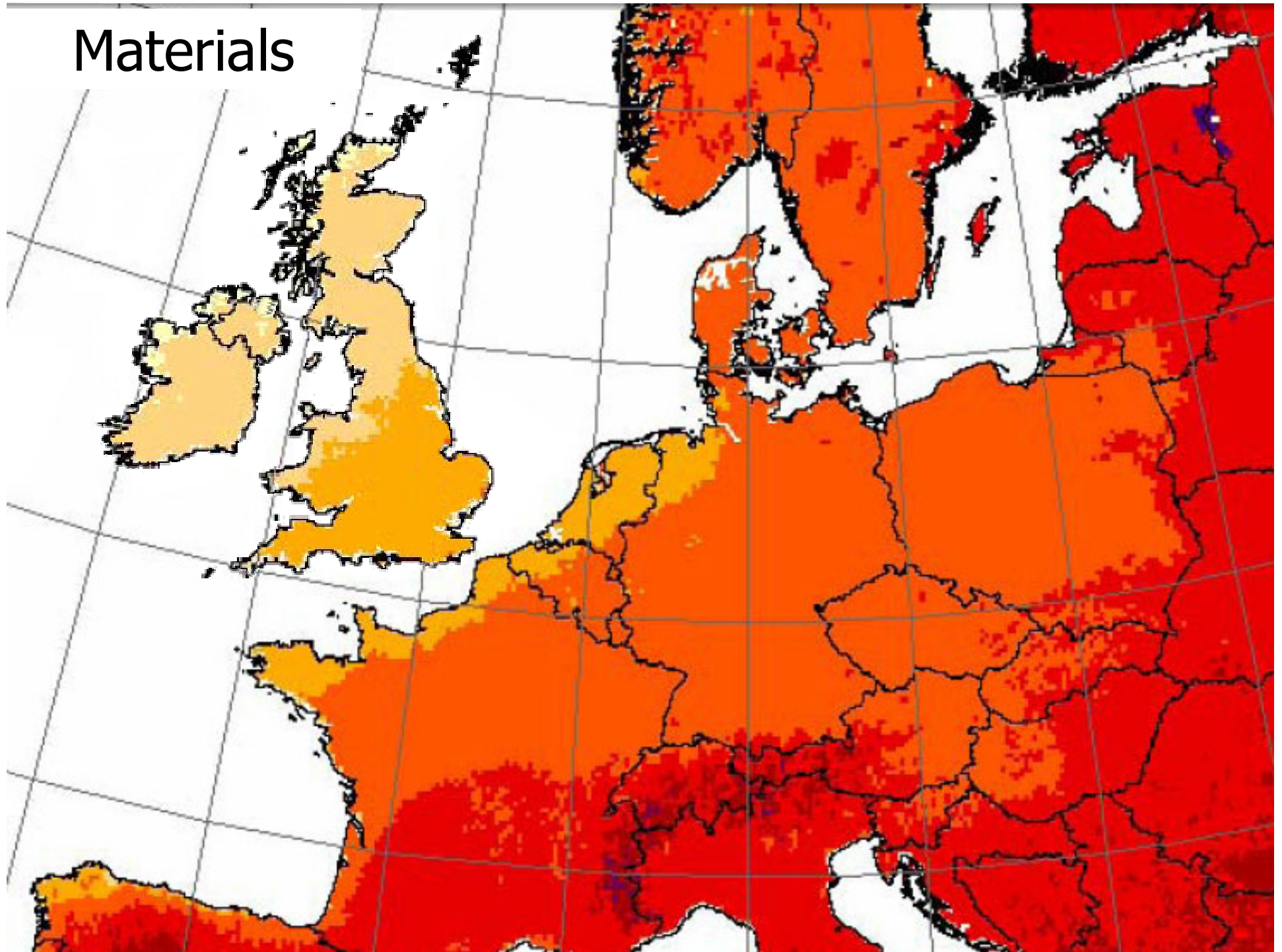
Trees and Vegetation

- Potential change in the growing season
- Faster growth of trees
- More damage claims from householders
- More trees falling in high wind

What measures need to be taken

- More time on inventory of trees
- More time on maintenance of trees
- More risk management
- Ensure trees planted correctly

Materials



Materials

- Softening and deformation under load
- Melting Roads
- Shrinkage and Cracking
- Potholes

What measures need to be taken

- Mimic French standard
- Alter routine surfacing techniques
- Review specifications
- CO2 Calculator for choice of materials
- Reduce cracking – improve pothole repairs
- Waterproof

Drainage

- Flooding
 - Sea level rise
 - Lack of capacity
 - Damage to highway
 - Landslip and erosion

What measures

- Local watercourse management
- Introduce SUDS
- Introduce permeable surfaces
- Change materials to cope with flooding
- Give priority to certain roads
- Increase knowledge of inventory
- Increase capacity at bridges and culverts
- Introduce risk management to landslips

We Can Adapt!!



Thank You

