

Timber Development Programme 2014-2015

Summary Report

Summary Report 2014-15

Introduction

The purpose of this report is to summarise the outputs of the Timber Development Programme (TDP) 2014-15.

Background

The aim of the TDP is to contribute to the sustainable development of Scotland's economy by enabling the timber growing and processing sectors to find the highest value and most appropriate end market for Scotland's timber.

The TDP is structured as a three-year programme focussing on four prime objectives:

- Promote a predictable and stable timber supply.
- Encourage more use of timber and timber products
- Enable improvements to timber supply chain efficiency
- Enable effective communication and dissemination of research/industry outputs.

Forestry Commission Scotland (FCS) is assisted by an industry based steering group chaired by Guy Watt to determine the programme.

Headline Outputs

The Timber Development Programme is an enabling mechanism, managed by Forestry Commission Scotland, with funds geared at leveraging support from the wider industry, research organisations, educational institutes and Regional Development Bodies. Since 2007, the TDP has facilitated and supported, through various partnerships, a range of projects and initiatives to enable Scotland's timber growing and processing sectors to find the highest value and most appropriate end market for Scotland's timber resource. Cash leverage between partnerships has varied from 1:1 to 1:10.

A summary of the headline outputs for 2014-15 categorised against the four key objectives of the programme is provided below.

Promote a predictable and stable timber supply

The two main activity areas under this objective will be to ensure a sound knowledge of the quantity and quality of timber growing in Scotland and to maintain a regular and stable supply from Scotland's forests.

- Promulgate the outputs of the recent 50-year softwood availability forecast and a 25-year hardwood availability forecast through events such as Forest Industry Regional Groups.

Both the softwood and hardwood 50-year forecasts have been delivered and presented to key stakeholders. <http://www.forestry.gov.uk/forestry/INFD-8rbp8t>

- Work with the Scottish Timber Markets Impact group to assess the outputs of the 50-year softwood availability forecast.

In conjunction with FC, we have recently published an "Evaluation of alternative harvesting and afforestation scenarios on British softwood timber availability".

[http://www.forestry.gov.uk/pdf/Impacts_of_Afforestation_on_Timber_Availability.pdf/\\$FILE/Impacts_of_Afforestation_on_Timber_Availability.pdf](http://www.forestry.gov.uk/pdf/Impacts_of_Afforestation_on_Timber_Availability.pdf/$FILE/Impacts_of_Afforestation_on_Timber_Availability.pdf)

- In partnership with others, continue to commission research to improve our understanding of the timber properties of our home-grown timber species. (FCS, Industry, SE, ENU, GU, AbU, FR, SFT)

In the last year, in partnership with Edinburgh Napier University (ENU) and industry through the SIRT programme <http://www.napier.ac.uk/forestproducts/centres/woodstudio/wpig/ResearchNetworks/SIRT/Pages/SIRTNetwork.aspx>, we have completed work that has led to the introduction of new grading settings for British larch and Sitka spruce. These settings will also be available for hand-held grading machines providing the opportunity for smaller-scale processors to produce and market graded timber. The new settings should also improve the performance of the larger-scale processors who grade using acoustic or x-ray technology.

ENU continue to represent the UK timber industry on various expert committees related to timber grading and standards.

Working with our colleagues in Corporate Forestry Support, Forest Research, FC England and Welsh Government, we have agreed a new research programme for the tree breeding and timber properties programme which will concentrate mainly on developing our understanding of the tree breeding challenges and the timber properties associated with many of our emerging species. This timber property work will be complemented by the activities of the SIRT programme.

- In partnership with Welsh Government and Scottish Forestry Trust, support a PhD study investigating the timber properties of alternative species such as Western Hemlock, Norway spruce, Noble fir and Western Red Cedar. (FC, SFT, Welsh Government, FR and ENU)

This study (<http://www.napier.ac.uk/forestproducts/news/Pages/New-PhD-student1119-4839.aspx>) is focussing on the timber properties of four of the most prominent minor species grown in GB; Western Hemlock, Noble fir, Norway spruce and Western Red Cedar. Initial non-destructive testing has been done on standing trees from sites in England and Wales and Scotland. This is a three year study to be complete in 2016, but early indicative results have been disseminated to the funders and to various industry groups.

Encouraging more use of timber and timber products

The main focus within this objective is to assess, enhance and promote the benefits derived from the use of timber in construction and to enable product innovation, development and use in high value end markets.

- In partnership with Scottish Enterprise and FC GB, provide funding and guidance to successful applicants from the recent call for Wood Wisdom www.woodwisdom.net. (FC and SE)

UK partners have been successful in obtaining funding for four projects within Wood Wisdom (www.woodwisdom.net). The four projects are: Varma: The project goal is to develop customer driven value chains and wood raw material allocation system by implementing smart bucking center for stems, where the fundamental idea is to deliver the right product to the right customer in a timely manner with the highest possible value added. <http://www.varma-eu.com/>; COSEPA : Controlled separation and conversion processes for wood hemicelluloses; http://www.woodwisdom.net/wp-content/uploads/2014/09/summary_cosepa.pdf, Rebioref: Mobilisation and utilisation

of recycled wood for lignocellulosic(LC)bio-refinery processes

<http://www.rewobioref.eu/> and Wood2new: The project aims to reinforce, stimulate and improve the competitiveness of wood-based interior products and systems.

<http://www.wood2new.org/>.

- Develop a plan for implementing the proposal for a Wood first – Timber Construction Programme, as identified in the Scottish Government’s second report on policies and proposals to meet carbon emissions reduction targets, 2013-2027, (RPP2). (FCS, SG and others)

We held an initial scoping meeting with various Scottish Government and other public sector colleagues to determine opportunities and barriers for implementing the Wood First – Construction Programme.

In partnership with Wood for Good, we have now collated comprehensive data on the carbon values of many timber construction products.

- Continue to support activities of the Wood Product Innovation Gateway and others to facilitate the development of innovative uses of timber to increase the value of the supply chain. (ENU, ERDF, FCS and others)

The Wood Product Innovation Gateway <https://www.youtube.com/watch?v=e1Bk7il3jKA> was complete in July 2014. In that time, over 2000 delegates have attended knowledge transfer events, 45 projects provided support to Scottish SMEs to innovate and develop new products and systems to add value to the domestic timber supply chain and approximately 780 companies and organisations engaged with the project.

- Commission and/or support research to improve our understanding of timber properties and performance. (Various)

FCS continues to support the four year PhD at the University of Surrey which is focussing on multi-scale MRI/X-ray CT characterisation and LB modelling of wood drying.

In collaboration with SE, the Industrial Biotechnology Innovation Centre (<http://www.ibioic.com/>) and others, we are exploring potential opportunities for emerging markets in the biotechnology and nanotechnology sectors for forest products.

- Work with others to promote the comprehensive data on the carbon value of timber products in a low carbon economy. (SE, TTF, WfG)

In partnership with Wood for Good, in addition to launching the LCA database to create a free online information hub containing all of the environmental and design data necessary to specify timber as a first choice material, we have produced a series of animations and case studies highlighting the carbon benefits of timber in construction <http://www.woodforgood.com/sustainability/build-with-carbon>. These will be used to continue to promote timber as the main sustainable construction material.

- Support the Forestry and Timber Technologies Industry Leadership Group to promote economic growth of the sector. (FCS, Industry and SE)

In agreement with Scottish Enterprise (SE) and industry, FCS has seconded a member of staff to support SE and industry leaders to refresh the key focus areas of Roots for Future Growth <http://www.forestryscotland.com/forestry/strategy> and develop an action plan that will help the industry build on opportunities and address key strategic issues.

We also made a small contribution to the Industry Leadership Group to maintain their website <http://www.forestryscotland.com/> and keep the information current.

- Support initiatives that promote the use and understanding of the benefits of timber in construction and other high value products. (Wood for Good, others)

We have been working closely with our colleagues in Architecture and Design Scotland to review the Natural Materials Library <http://www.ads.org.uk/sust/activities/material-considerations-a-library-of-sustainable-building-materials-2> with a view to updating and refreshing the material pertinent to timber in construction.

Also in collaboration with EHU and Historic Scotland we have drafted a second edition of the publication "Sustainable Construction Timber" [http://www.forestry.gov.uk/pdf/fcfc152.pdf/\\$FILE/fcfc152.pdf](http://www.forestry.gov.uk/pdf/fcfc152.pdf/$FILE/fcfc152.pdf) which will be published in the summer of 2015.

We have also provided support and guidance to Reforesting Scotland' "Hutting Campaign" <http://www.thousandhuts.org/> to help them develop best guidance on the use of home-grown timber for hut construction.

We also commissioned Centre for Off-site Construction and Innovative Structures to carry out product development and testing on three new potential products (Glulam, Dowel-lam and Trusses) that may add value to larch timber. The final reports will be made available I the summer of 2015.

In partnership with RIAS and Wood for Good we sponsored "Best Use of Timber" awards for 2014 <http://www.rias.org.uk/awards/rias-awards/rias-awards-2014/> . In collaboration with Architecture and Design Scotland, we produced a small exhibition to promote the short list and winners of the 2014 RIAS awards <http://www.ads.org.uk/sust/events/exhibition-best-use-of-timber-awards-2014> .

FCS has been working closely with colleagues in SE to provide support to the Scottish timber frame industry through the Structural Timber Association to penetrate markets in England and further afield.

- Work closely with others to develop and promote the activities of the Construction Innovation Centre particularly in relation to utilising home grown timber in construction (SE, SFTTAG and FCS).

We have been working closely with the management team of the Scottish Construction Innovation Centre http://www.constructionscotland.org.uk/innovation_centre/about.html to help them develop a governance structure for future projects involving timber in construction. To that end, we have agreed to be a member of their advisory group on advanced construction, providing advice, guidance and support on the use of home-grown timber in product development and innovation.

Enable improvements to timber supply chain efficiency

The main activity under this objective will focus on minimising the financial, social and environmental costs of harvesting and transporting timber to primary processors.

- Continue to work with the ASHS and the SFMA to increase the economic output of the hardwood supply chain in Scotland (ASHS and SFMA).

FCS continues to support the Association of Scottish Hardwood Sawmillers (ASHS) and the Scottish Furniture Makers Association (SFMA) to develop their markets through initiatives such as the joint event with ASHS and the "Usewoodfuel" initiative to promote the improved management of small woodlands and potential efficiencies for the Scottish hardwood processing sector.

We also helped SFMA secure exhibition space at this year's Ideal Homes exhibition in Glasgow.

- Collate and publish best practice in growing quality productive hardwoods in Scotland. (FR and FCS)

The final draft of the growing quality oak in Scotland publication has been circulated and comments received are being worked on. Publication is due in early 2015/16, along with a review of the causes of shake in oak by Forest Research.

- Further develop the FES niche marketing strategy and deliver log shops offering hardwoods and premium softwoods to small scale processors. (FES, FCS, ASHS)

FES recruited a national niche marketing officer to focus on developing markets in hardwoods and niche softwoods grown on the national forest estate. He is working closely with FCS and, where appropriate, the trade to maximise the benefits from activities undertaken.

- Continue to manage the Strategic Timber Transport Fund and support the Timber Transport Forum. (FCS and TTF)

There continues to be strong demand for the Strategic Timber Transport Fund (STTF) with a 2014/15 spend of £2.79m including £0.75m for the Timberlink Argyll to Ayrshire public shipping service.

Scottish Government extended funding for the STTF by £3M for 2015/16 and this money has all been committed to projects to be drawn down during the year. (<http://scotland.forestry.gov.uk/supporting/forest-industries/timber-transport/strategic-timber-transport-fund>)

- Co-fund with Corporate and Forestry Support a PhD investigating “Improving mechanical properties of Sitka spruce through breeding”.(FR)

This is an ongoing four-year study which is due to be completed by 2016.

- Continue to support the Strategic Timber Transport Project Officer. (FCS, Industry and SE)

We have agreed to continue co-funding the project Officer until March 2016 when future funding will be reviewed.

- Support Future Trees Trust in establishing an improved sycamore seed orchard on the national forest estate in South Scotland. (FCS, FR, FTT and FES)

The establishment of an improved Sycamore seed stand has been completed on the national forest estate in South Scotland. This seed stand should provide seed to enable growers to plant improved stock and grow quality hardwood for future developing markets.

Enable effective communication and dissemination of research/industry outputs.

Activity under this objective will focus on ensuring that key messages from outputs of the TDP and associated initiatives are disseminated effectively to the appropriate audience.

- Support Wood for Good specifically to deliver CPD events to architects and engineers across the UK raising awareness of best practice and the benefits of using timber in construction. (Wood for Good, TRADA and Edinburgh Napier University)

In this period, a number of knowledge transfer events were carried out by WfG, TRADA and ENU across GB promoting the benefits of timber, particularly home grown timber.

- Host annual research event to update key stakeholders on the most recent findings and research activities in relation to timber and wood properties. Update associated booklet of abstracts of current activity. (FR, FCS and others)

Due to staff changes and other priorities this delivery of this event will be carried to the next reporting year.

- In partnership with Forest Research and FC Forestry and Corporate Support produce and publish a Bulletin defining the timber properties of Scot's pine. (FR and CFS)

Whilst significant progress has been made in bringing this publication together, the final document will not be published until 2015/16.

Future projects

An outline of the 2015-16 programme can be found in Annexe 1.

If you have an idea and would like to discuss working in partnership to improve Scotland's timber supply chain or would like more information on the programme, please contact:

Andy Leitch
Timber Development Policy Advisor
Forestry Commission Scotland

Mob – 07881 510171
Email - andy.leitch@forestry.gsi.gov.uk

Or

Guy Watt
Timber Development Programme
Steering Group Chair
Email - gw@johncleggconsulting.co.uk

Annex 1

Provisional Timber Development Programme 2015-16

The following is a provisional outline of projects and initiatives that will contribute to delivering the four key objectives set out in the Timber Development Programme. Almost all of these tasks are partnership based and will attract co-funding. The first year is set in some detail and the following years are in outline.

Promote a predictable and stable timber supply

The two main activity areas under this objective will be to ensure a sound knowledge of the quantity and quality of timber growing in Scotland and to maintain a regular and stable supply from Scotland's forests.

- Continue to work with Industry to fully understand and promote the outputs of the recent 50-year softwood and hardwood availability forecasts and the recent evaluation of alternative harvesting and afforestation scenarios on British softwood timber availability. (STMIG)
- In partnership with others, continue to commission research to improve our understanding of the timber properties and performance of our home grown timber species. (FCS, Industry, SE, ENU, GU, AbU, FR, SFT)

Encouraging more use of timber and timber products

The main focus within this objective is to assess, enhance and promote the benefits derived from the use of timber in construction and to enable product innovation, development and use in high value end markets.

- In partnership with Scottish Enterprise and FC GB, provide funding and guidance to successful applicants from the recent call for Wood Wisdom www.woodwisdom.net. (FC and SE)
- Continue to develop a plan for implementing the proposal for a Wood first – Timber Construction Programme, as identified in the Scottish Government's

second report on policies and proposals to meet carbon emissions reduction targets, 2013-2027, (RPP2). (FCS, SG and others)

- Work with others to promote the comprehensive data on the carbon value of timber products in a low carbon economy. (SE, TTF, WfG)
- Support the Forestry and Timber Technologies Industry Leadership Group to promote economic growth of the sector. (FCS, Industry and SE)
- Support initiatives that promote the use and understanding of the benefits of timber in construction and other high value products. (Wood for Good, others)
- Explore specific opportunities for increased use and added value to through home grown timber and timber products. (FTTILG, IBioC, SE and others)
- Work closely with others to develop and promote the activities of the Construction Innovation Centre particularly in relation to increasing utilising home grown timber in construction (SE, SFTTILG, CSIC and FCS).

Enable improvements to timber supply chain efficiency

The main activity under this objective will focus on minimising the financial, social and environmental costs of harvesting and transporting timber to primary processors.

- Continue to work with the ASHS and the SFMA to increase the economic output of the hardwood supply chain in Scotland (ASHS and SFMA).
- Identify and support opportunities to enhance skills in the timber supply chain. (FTTILG, SDS, FES, Lantra and others)
- Working with others, identify and support initiatives that will help improve supply chain efficiency. (FTTILG and others)
- Continue to co-fund the Strategic Timber Transport Forum Project Officer. (FCS and others)
- Working with others, review the outputs and continued demand for the Strategic Timber Transport Fund. (FCS and TTF)

Enable effective communication and dissemination of research/industry outputs.

Activity under this objective will focus on ensuring that key messages from outputs of the TDP and associated initiatives are disseminated effectively to the appropriate audience.

- Host annual research event to update key stakeholders on the most recent findings and research activities in relation to timber and wood properties. Update associated booklet of abstracts of current activity.
- Continue to support the Wood for Good campaign, mainly CPD events and initiatives promoting the benefits of timber in construction.
- In partnership with Forest Research and FC Forestry and Corporate Support produce and publish a Bulletin defining the timber properties of Scot's pine.

An outline programme for 2016-2018

Promoting predictable and stable timber supplies

- Continue to support research into the timber properties of alternative productive tree species on account of climate change and disease.
- Continue to work to improve quality of growing coniferous resource.

Encouraging more use of timber and timber products

- Continue to work with others to promote the carbon benefits of timber products in achieving a low carbon economy.
- Explore specific opportunities for increased use and added value to through home grown timber and timber products.
- Continue to support research into innovative uses of wood for high-end value markets.
- Support initiatives to raise awareness of the properties of timber from Scottish forests.

Enable improvements to timber supply chain efficiency

- In conjunction with others, develop a strategy for efficient and effective timber transport involving non-road network elements from remote areas of Scotland.
- Identify and support opportunities to enhance skills in the timber supply chain.
- Continue to support initiative that will help improve supply chain efficiency.
- Anticipate continuing the management of the STTF.
- Continue to promote good quality productive forestry.

Enable effective communication and dissemination of Research/industry outputs.

- Ensure research outputs are disseminated timeously and to the appropriate audience.
- Support initiatives that provide effective dissemination of relevant research and development outputs.

List of Partners

AbU – Aberdeen University.
A+DS – Architecture and Design Scotland
SFT - Scottish Forestry Trust
ERDF – European Regional Development Fund
FC – Forestry Commission GB
FC Wales – Forestry Commission Wales
FR – Forest Research
SE – Scottish Enterprise.
ASHS – Association of Scottish Hardwood Sawmills.
SFMA – Scottish Furniture Makers Association.
GU – Glasgow University
ENU – Edinburgh Napier University
WfG – Wood for Good
Confor – Confederation of Forest Industries
BRE – British Research Establishment.
RIAS – Royal Incorporation for Architects in Scotland
FTT – Future Trees Trust.
HS – Historic Scotland
TRADA – Timber Research and Development Association
TTF – Timber Transport Forum.
TTFed – Timber Trade Federation
UofS - University of Surrey