March 2016 Update: Forest and Timber Technologies Industry Leadership Group and Timber Development.

Andy Leitch
FC Scotland Economic Evaluation of Forestry in Scotland

FORESTRY’S ECONOMIC CONTRIBUTION TO SCOTLAND

WORTH ALMOST £1 BILLION GVA* PER YEAR
THAT’S £771,000,000 GVA FROM FORESTRY AND TIMBER PROCESSING
AND £183,000,000 GVA FROM FOREST RECREATION AND TOURISM

EMPLOYS OVER 25,000 PEOPLE THAT’S 19,555 IN FORESTRY AND TIMBER PROCESSING
AND 6,312 IN FOREST RECREATION AND TOURISM

*Gross Value Added and full time equivalent taken from "The Economic Contribution of the Forestry Sector in Scotland; 2015"
Forest and Timber Technologies Sector Boundaries?

- Grow and communicate the industry's contribution to Scotland
- Grow the market share and value added of Scotland's forest products
- Grow the skills and capacity of our people
- Maximise the productive capacity of Scotland's woodlands and forests

Forest and Timber Technology Sector

- Timber frame and recycled wood
- Furniture and finished products
- Forestry and timber processing
- Imported timber and distribution
- Secondary processing

Forest based Tourism

Furniture and finished products

Timber frame and recycled wood

Forestry and timber processing

Imported timber and distribution

Secondary processing

Forestry and timber technologies sector

Scottish Enterprise
“Roots for Future Growth” update

- Refresh and re-launch “Roots for Future Growth” and report on progress of action plan. (Autumn 2016)
- Supported by small Strategy group including Confor and UKFPA.
“Roots for Future Growth” update

INVESTMENT
- Education, skills and health
- Infrastructure and digital
- Business investment
- Natural capital, resource efficiency and low carbon
- Communities, local assets and housing

INNOVATION
- Business innovation and entrepreneurship
- Workplace innovation and digital
- Commercialisation of research and development
- Public services

INTERNATIONALISATION
- Trade
- Investment
- International connectivity
- Global outlook, influence and networks

INCLUSIVE GROWTH
- Fair Work
- Business pledge
- Promoting equality and tackling inequality
- Place and regional cohesion
Scottish Forest and Timber Technologies Industry Leadership Group Structure – sub groups

SFTT ILG

Skills
Emerging Markets
Forest Floor Efficiencies
Adding value through innovation in Construction
Emerging Markets: Marketing material for wood fibre as a feedstock for a biorefinery in Scotland

**Feedstock**
- Supply and demand study of availability.
- Characteristics of wood fibre.
- Chemical composition of softwoods and hardwoods

**Process**
- What processes are used in other parts of the world. What works, what doesn’t?
- Process appropriate to characteristics and availability of feedstock in Scotland/UK.
- Economic viable scale?

**Products and market development**
- Matching chemical composition to existing markets in Scotland and further afield.
- Viability of product and market development.
- Opportunities for exporting outputs of biorefinery.
Adding value through forest floor efficiencies

• Initial meeting of small working group of private sector operations managers.
• Initial thoughts on priority areas for development:
  – Improve inventory forecast (yield, quality and form)
  – Decrease rotation lengths without loss of quality.
  – Improved collaborative timber logistics (right timber for right processor)
  – Maximizing wood fibre recovery from harvesting.

• Next steps discussion with FCA and other supply chain players.
• Prioritise topics and develop project proposals.
Adding value through innovative Construction products

• Create a task group to review progress to date and identify most likely opportunities for new products and systems to add value to wood fibre supply chain.

• Significant success through Wood PIG and other funding initiatives.
Queen’s Anniversary Prize: “Timber Engineering and Construction to reduce the carbon footprint and benefit the UK economy”
FC Scotland **Timber Development Programme** investment in collaboration with Scottish Construction Innovation Centre.

- £50k against £1M investment in equipment to initiate innovation in timber in construction.
Offsite Manufacture Pilot Line

Cross Laminate Timber Vacuum Table

Sub-Component Construction Table

CNC Timber Processing

Airlay Thermobond Pilot Line

Masonry Extrusion Press

3D Printing (Multi-Material)

6 Axis Robot (Multi-Tool)
Offsite Manufacture Automated Pilot Line

Capacity
1.1 Scale wall, floor and roof panels for demonstration on live builds
6x3m Timber Frame Closed Panels (Multi-Materials)
6x3m Timber Frame / Solid Timber Hybrid Panels (Multi-Materials)
6x3m Timber Frame Structural Insulated Panels (Multi-Materials)
6x3m Solid Timber Nailed Plank Panels

Training
Off site manufacturing techniques & processes.
Encouraging uptake of automation amongst SME’s
Cross Laminate Timber Vacuum Table

**Capacity**
1.1 Scale wall, floor and roof panels for demonstration on live builds
10x3m Solid Timber Cross Laminated Panels & Products
10x3m Timber Frame Closed Panels (Multi-Materials)
10x3m Timber Frame / Solid Timber Hybrid Panels (Multi-Materials)
10x3m Timber Frame Structural Insulated Panels (Multi-Materials)

**Training**
Off site manufacturing techniques & processes.
Encouraging uptake of lamination techniques amongst SME’s
Sub-Component Construction Table

Capacity
1.1 Scale wall, floor and roof panels for demonstration on live builds
6x3m Timber Frame Open Panels (Multi-Materials)
6x3m Timber Frame Sub Assemblies (Cladding etc)

Training
Off site manufacturing techniques & processes.
Encouraging uptake of sub assembly processes amongst SME’s
CNC Timber Processing

Capacity
1200x2400mm Timber & Composite Boards

Training
Encouraging manufacture of innovative products amongst SME’s
Airlay Thermobond Pilot Line

Capacity
1.1 Scale non-woven composites (e.g. Insulation, Acoustic Underlays, Textiles)
Up to 600mm wide by 5-300mm deep Composites
Use of waste streams (Cotton, Polyester, Denim, Cellulose, Wood, Feathers!)

Training
Encouraging uptake of manufacturing techniques & processes amongst SMEs
Objectives

Single point of entry to the construction innovation landscape

Help industry uncover the value that lies in innovating and empower ownership of innovation

Drive future demand for innovation by industry from within Scotland’s leading universities

Better align economic development agency support

Encourage networking to develop collaboration and share challenges and disseminate information
Other things you might be interested in?

- Sustainable Construction Timber 2nd edition (June 2016).
- 3 CPD Events at the Lighthouse in Glasgow:
  - 10th March: Engineered Wood Products for Modern Methods of Construction.
  - 17th March: Solid Wood Systems.
  - 24th March: Timber Cladding and Innovation.
- Wood for Good “Modern Timber House” publication. (May 2016)
- Wood for Good conference in Edinburgh on Innovative timber frame housing. (May 2016)
- Wood properties and uses of Scots pine in Britain Summer (2016)
Ashley Woodhouse, FES Modern Apprenticeship Manager

- Member of ILG Skills Group.
- Chair of “New Entrants” sub-group.

“Sector Skills issues and how do we address them as an industry”