

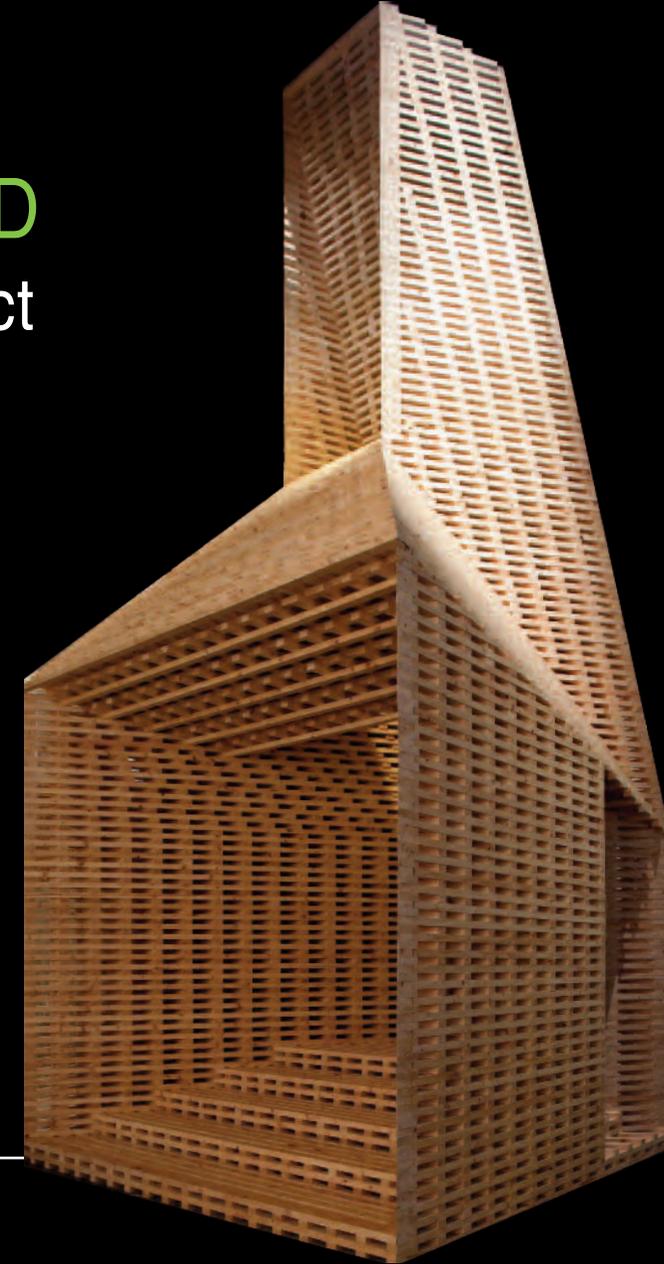
REVISED
EDITION

WOOD IRELAND

WOOD IRELAND

pride in the product

wood marketing federation



WOOD
MARKETING
FEDERATION



wood marketing federation

promoting wood as a renewable, sustainable
and versatile natural material

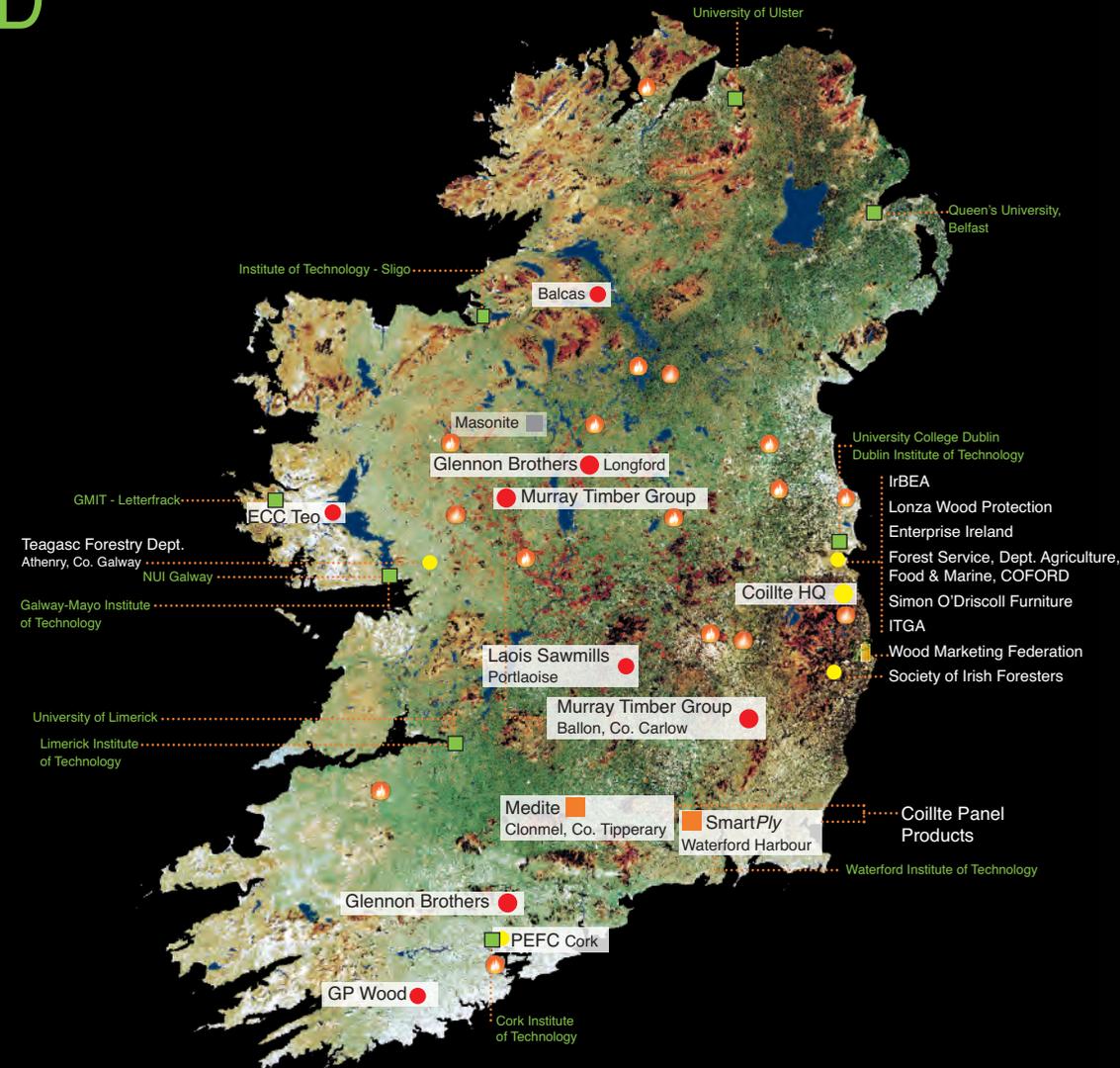
Wood Marketing Federation
e info@wood.ie
w www.wood.ie

WOOD IRELAND



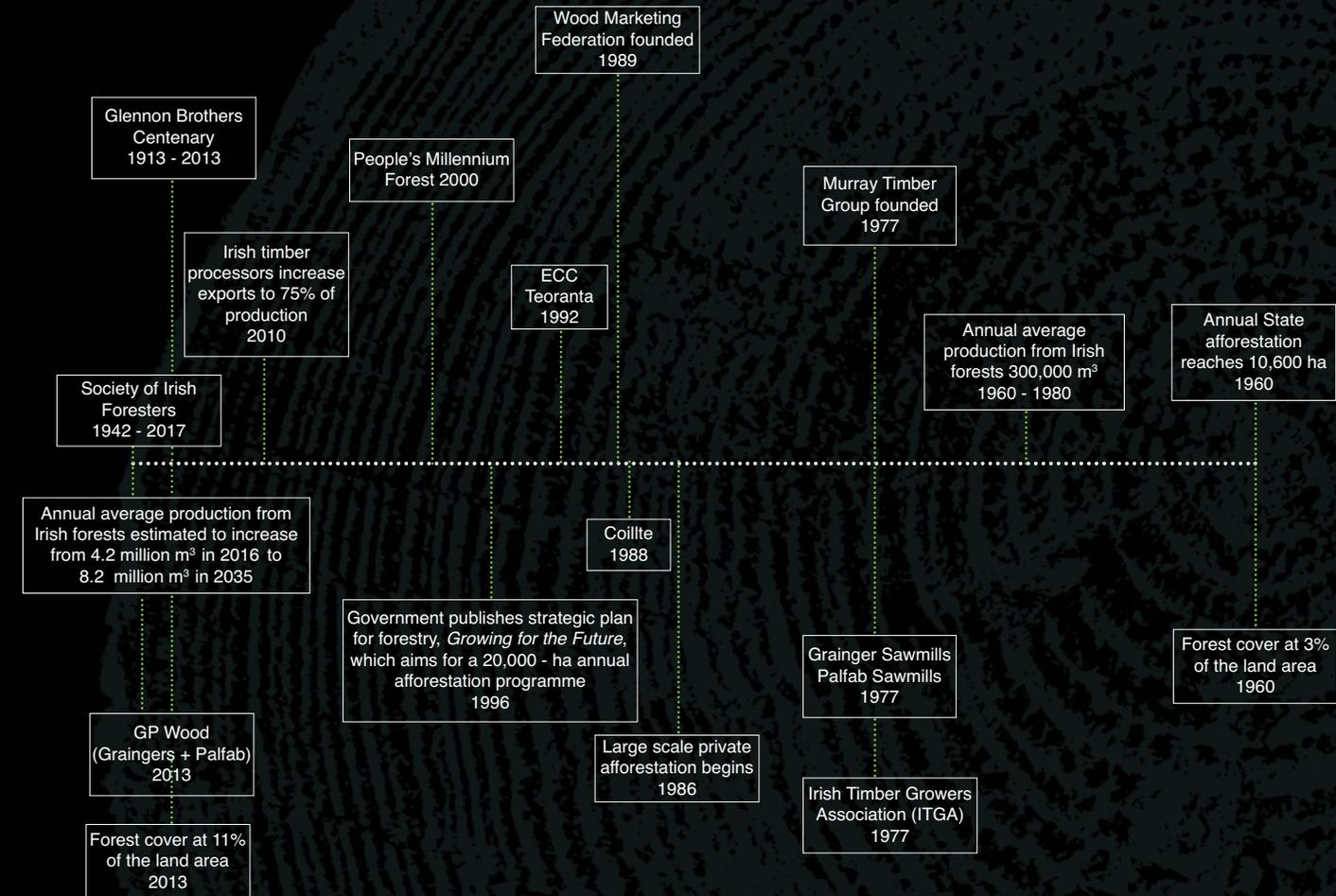
Timber processors, sawmills and key stakeholders in the Irish forestry and forest products industry

- Sawmills – members and supporters of WMF
- Board mills – members and supporters of WMF
- Stakeholders – supporters of WMF
- 3rd Level Colleges – supporters of Student Wood Awards
- Certified firewood and wood fuel suppliers under the Wood Fuel Quality Assurance Scheme



WOOD IRELAND

growing for generations



WOOD IRELAND

pride in the product

Editor: Donal Magner





WOOD IRELAND

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PROMOTING WOOD

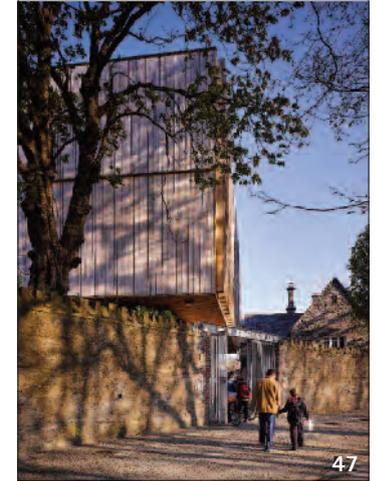
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*Wood is the greatest
renewable resource
in the world*

FOREWORD

The purpose of this publication is to promote wood and wood products to our customers and other stakeholders in Ireland and overseas. It highlights the increasing importance of the forestry and forest products industry to the Irish economy. The sector has grown from a small domestic industry in a generation to become a vibrant wealth creator now valued at €2.2 billion per annum with the potential to double this by 2030.

Wood is the greatest renewable resource in the world providing it is sourced from sustainably managed forests. We support initiatives that ensure a sustainable timber industry throughout the growing and production cycle. We place strong emphasis on environmental certification schemes and the EU Timber Regulation which effectively bans the placing of illegal timber and timber products on the EU market. Like certification, the regulation places an obligation of due diligence on all who trade in wood and wood products.

We are fortunate in the WMF to be in a position to draw on the support of leading companies and organisations to achieve our objectives. We appreciate the co-operation of stakeholders including timber processors and manufacturers, wood preservative companies, architects, engineers, designers and other specifiers, third level colleges and state agencies. This partnership has major economic, social and environmental benefits for this and future generations.



Paul Harvey
Chairman
Wood Marketing Federation



INTRODUCTION

The Wood Marketing Federation was founded in 1989 to promote wood as a sustainable and renewable medium in construction and design. While we place strong emphasis on home grown wood and wood products, we promote wood, regardless of origin, providing it is sourced from sustainably managed forests and conforms with the EU Timber Regulation (EUTR), No. 995/2010, on illegal logging and/or has independently verified chain of custody certification.

The Federation highlights the structural, aesthetic and environmental benefits of wood as a sustainable construction and design medium as well as its contribution to climate change mitigation.

This publication provides a snapshot of wood in a diverse range of applications. In addition, it directs readers to our publications, conferences, wood awards and other events. These are the core activities that keep our stakeholders informed of timber standards, specifications, design and usage.

MISSION

WMF is a non-profit making organisation whose mission is:

- To promote wood as a renewable, sustainable and versatile natural material.

Our members and other stakeholders in the forestry and forest products industry support a range of projects, which meet with the following objectives:

- **Quality:** to support the development of the highest standards.
- **Education:** to increase the knowledge and understanding of wood and wood products.
- **Innovation:** to promote and encourage new uses and applications for wood.
- **Representation:** to support member organisations in improving and developing their markets.

The WMF programme promotes wood to a wide public but most of our programmes are aimed at specialist audiences including traders, builders, timber processors, architects, engineers, designers, preservative treatment companies along with state agencies that interact with the forestry and forest products sector.

EDUCATION

WMF has a strong relationship with universities and other third level colleges which has grown in strength since the inauguration of the Third Level Student Wood Awards in 2006. All the major colleges participate in the awards, sponsored by Coillte and COFORD.



WMF recognises the need for productive and sustainably managed forests of sufficient scale to sustain a viable forestry and forest products industry. In this regard, much progress has been made in Ireland especially over the past three decades. For example, production from Irish forests – north and south – has increased from 1.3 million cubic metres (m³) in 1985 to 4.2 million m³ in 2016 and forest cover has increased from 4% to 11% of the land area over the same period. The *All Ireland Roundwood Production Forecast 2016–2035* estimates that timber production will reach 8.12 million m³ by 2035.

POLICY

The Government's review of Irish forestry proposes to double annual afforestation to 15,000ha as part of its mission: To develop an internationally competitive and sustainable forest sector that provides a full range of economic, environmental and social benefits to society.

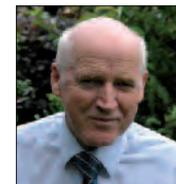
This review has been influenced by the performance of the Irish sawmilling and panel board sector which has convinced Government that these mills are sufficiently innovative and competitive to process all the available timber in Ireland.

The ambitious afforestation programme along with continued investment and expansion by our timber processors will provide the economies of scale to develop forestry as a major

wealth and job-creating sector in Ireland. It is estimated that for every one million euro in expenditure in the forest products sector a further €780,000 in expenditure is generated in the rest of the economy.

In addition to the role that forests play as carbon sinks in reducing greenhouse gas emissions, harvested wood products such as sawn timber, engineered wood and panel products are now included in the international carbon accounting framework for forests. Ireland is well placed to increase timber production, processing and manufacturing.

The timber processing sector alone has proved that it will continue to increase export and domestic market share as the raw material supply increases from our forests. The Federation will continue to play its part in supporting the forestry and forest products industry and create a wood culture in Ireland.



Donal Magner
Secretary
Wood Marketing Federation



BIG RED

*Architects: Clancy Moore, TAKA & Steve Larkin
London Festival of Architecture 2015*

*Supported by Wood Marketing Federation and members Coillte
and Glennon Brothers, suppliers of OSB and sawn timber.*





FOREST CERTIFICATION

The Irish forestry and forest products sector fully supports forest certification. All timber processors who are members of the Wood Marketing Federation have chain of custody certification as well as adhering to the EU Timber Regulation (No. 995/2010).

Irish and European foresters have managed forests for generations based on the principle of sustained yield which ensures the regular continuous supply of the desired produce to the full capacity of the forest.

Forest product certification takes this process a step further to include timber processing and manufacture.

Certification is a voluntary, market-driven initiative that provides greater access to international markets as it proves that timber and timber products are sourced in sustainably managed forests.

There are two main elements in timber certification:

- The process begins in the forest where sustainable forest management ensures that silvicultural practices are sustainable from establishment to harvesting.
- The second process begins after the timber leaves the forest and continues from processing to manufacturing until it reaches the customer.

In effect it means that timber production throughout the growing, harvesting, processing and manufacturing cycle is managed according to internationally accepted stewardship principles.

Irish sawmills and board mills process all the available logs on the island and export 80% of finished product

- Enterprise Ireland
- Coillte
- Balcas
- ECC
- Glennon Brothers
- GP Wood
- Laois Sawmills
- Murray Timber Group
- Lonza Wood Protection

TIMBER TEAM IRELAND

All mills featured are members of the Wood Marketing Federation and have chain of custody certification.



Enterprise Ireland is committed to supporting innovation in the Irish forest products industry

- Enterprise Ireland support export initiatives by Irish timber processors and promote timber at timber trade exhibitions including Timber Expo.

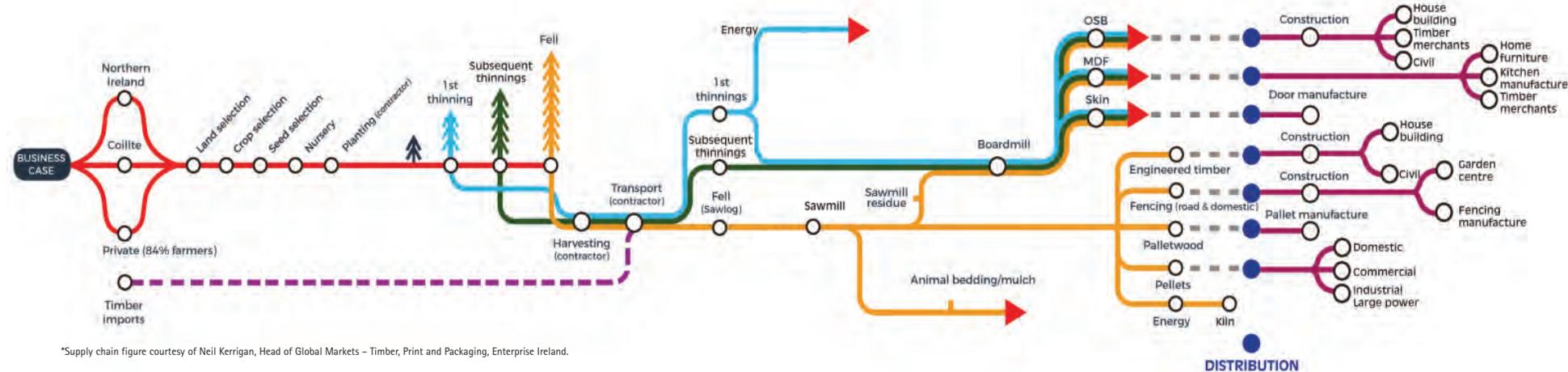
ENTERPRISE IRELAND

Forest industries international supply chain*

ZONE 1: FOREST

ZONE 2: CONVERSION

ZONE 3: INTERNATIONAL MARKETS



*Supply chain figure courtesy of Neil Kerrigan, Head of Global Markets – Timber, Print and Packaging, Enterprise Ireland.

Enterprise Ireland's mission is to accelerate the development of world-class Irish companies to achieve strong positions in global markets resulting in national and regional prosperity. Our priority is helping companies develop innovative market-led products and grow and develop new export markets. We also provide assistance for international companies who are seeking world-class Irish partners.

Enterprise Ireland has a lead role in delivering a number of key objectives of the Government's Strategy for Science,

Technology and Innovation. Enterprise Ireland works closely with IDA Ireland and Science Foundation Ireland, and has developed a number of initiatives that focus on:

- The commercialisation of technology generated from publicly-funded research.
- Promoting interactions between industry and Irish academic researchers.
- Simplifying R&D grant support structures and increasing support measures for technology transfer in the Institutes of Technology.

Enterprise Ireland works with clients, including Irish timber processors, to maximise their impact by supporting them to:

- Develop and implement strategies.
- Access new international markets.
- Invest in R&D.
- Compete through productivity.
- Build strong management teams.
- Finance growth and innovation.

Enterprise Ireland is committed to supporting innovation in the Irish forest products industry.

Enterprise Ireland
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Dublin 3
T: +353 1 727 2000
E: client.service@enterpriseireland.com



www.enterprise-ireland.com

Enriching lives through the innovative and sustainable management of natural resources

COILLTE

- Oriented strand board (OSB) produced by SMARTPLY.
- Coillte forests supply 2.8 million m³ of logs annually to Irish sawmills and to MEDITE SMARTPLY.
- MEDITE used for panelling in the reception area of the European Bank for Restoration and Development.



Coillte is a state-owned commercial company operating in forestry, land based businesses, renewable energy and panel products. Established in 1988, the company employs over 1,000 people to manage its 440,000-ha estate through the following three businesses:

- Forestry
- Land Solutions
- Medite Smartply

The company's Forestry Division supplies 2.8 million m³ of logs annually to Irish sawmills and to MEDITE

SMARTPLY the company's panel board mills in Clonmel and Waterford. These are international market leading manufacturers of environmentally produced, sustainable timber construction panels.

The award winning brands MEDITE and SMARTPLY are renowned for delivering the highest quality products, customer led innovation and industry leading customer service. These feature the latest production technology to deliver straighter, flatter and more consistent boards than ever before, in a range of

sizes unparalleled within the industry. Constant progression and investment has allowed MEDITE SMARTPLY to enter new diverse markets and sectors, meaning that there is always a fresh pipeline of new products to address market demands.

The forest industry in Ireland has the potential to double output by 2035 and Coillte will play a leadership role in delivering this growth. Coillte's vision is to become the best forestry and land solutions company in Europe by 2025.

Coillte
Head Office
Dublin Road
Newtownmountkennedy
Co. Wicklow
A63 DN25

T: 1890 367 378


COILLTE
GROW · TRANSFORM · SUSTAIN
www.coillte.ie

Balcas goals are, securing routes to market, developing people, inspiring and promoting innovation, and building relationships

BALCAS

- Kiln Dried Spruce (KD), CE marked and graded to C16 in accordance with BS EN 14081.
- Use Class 4 dried and incised round posts which allows deep penetration of preservative.
- Balcas manufactures 155,000 tonnes of brites biomass pellets annually.



Balcas is one of Britain and Ireland's largest wood product suppliers, with a turnover of circa £100m. The group has some 360 direct employees and a further 300 engaged in forest harvesting and haulage. These, along with our customers ensure that Balcas achieves its mission: "To radically strengthen our positions and ultimately our value".

Balcas operates from several sites including sawmill sites in Enniskillen and combined heat and power plants in Enniskillen and Invergordon. These provide a comprehensive range of

products including, construction, fencing, packaging and wood pellets.

Construction timber: Balcas offers a full range of high quality kiln dried graded structural timber which can be treated green or brown.

Fencing: Balcas provides an extensive range of unseasoned and preservative pre-treated fencing timbers. Our revolutionary incised and treated Permaposts are regarded as the most reliable long lasting fencing posts in the British and Irish markets.

Pallets and packaging: Balcas produces a complete range of pallet wood components from our Enniskillen site.

Wood energy: Our *brites* wood pellets are a convenient sustainable fuel used in thousands of homes and businesses throughout the UK and Ireland.

We comply with the relevant EU legislation and hold the International Environmental Standard ISO 14001. We have FSC® chain of custody certification for all of our timber processing facilities.

Balcas Timber Ltd.
75 Killadeas Road
Laragh, Ballinamallard
Enniskillen, Co. Fermanagh
Northern Ireland, BT94 2ES

Email: info@balcas.com
Tel: +44 (0) 28 6632 3003
Fax: +44 (0) 28 6632 4082

BALCAS

www.balcas.com
www.brites.eu

ECC – supplying quality products to the timber industry since 1992

ECC

Earraí Coillte Chonnacht Teoranta

- Quality begins in the forest
- World class state-of-the-art technology
- Continuous improvement programme ensures quality products for the Irish and export markets



ECC is supplying quality construction, fencing and pallet timber products to the Irish and UK markets since 1992. Founded by PJ Fahy in partnership with Aurivo Coop, the company has grown to become a major force in the Irish and UK timber industry with annual turnover now exceeding €60million.

The company's headquarters and main production facility is located in the scenic west of Ireland and also maintains sales offices in Liverpool and Ipswich to ensure a high level of customer service. Employing over 300

people at the main production facility and in areas of harvesting, haulage and distribution, ECC recognises the commitment of our workforce to the ongoing success of the company.

Recognised as a highly reliable and flexible supplier, ECC has built a reputation for consistent quality and on time delivery. We produce a comprehensive range of products for the construction pallet and fencing markets, offering high pressure preservative treatment, kiln drying and ISPM 15 Heat Treatment services on all

products. The company is grateful to its loyal customers in Ireland and the UK for continuing to support its ongoing growth and development. To ensure the highest level of quality management the company maintains a culture of continuous improvement through the use of ISO 9001:2008 QMS. In addition the company actively promotes sustainable forestry management being fully accredited with FSC and PEFC certification. As Coillte's largest customer, the company continues to drive production growth with annual capacity now exceeding 750,000m³.

ECC
Earraí Coillte Chonnacht Teoranta
Corr na Mona, Co. Galway, Ireland
F12 F406

UK Contact Sales and Support:
T: 0845 3990919

Ireland Contact Sales and Support:
T: + 353 (0) 94 9548255
E: sales@ecc.ie


earraí coillte chonnacht teoranta
www.ecc.ie

- Mike and Pat Glennon at shipment of sawn timber for the French market.
- Construction of timber frame house by Dempsey Timber Engineering.
- Glennon Brothers, major supplier of construction timber.



Since 1913, Glennon Brothers has been manufacturing high-quality timber products and is now the premier name in the Irish and UK timber processing industry. Through Glennon Brothers plants in Longford and Fermoy in Ireland and Windymains Timber and Adam Wilsons in Scotland, the company supplies the Irish, UK and French markets with products for the construction, pallet wood and fencing industries.

Products include kiln dried strength graded carcassing, pallet and packing

case material, CLS for the timber frame manufacturing industry and machined whitewoods for the construction and garden shed industries. In addition, the company offers Glendeck timber decking and Glenfence fencing for outdoor use, as well as timber frame homes and engineered roof trusses.

The company supplies residual products such as wood chips, sawdust, bark, and shavings to various end use applications including panel board, horticulture and wood energy markets.

The company is also involved in timber frame construction in Ireland and the UK through its two subsidiaries:

- Alexanders Timber Design the leading provider of quality timber frames and engineered roof trusses for the UK timber frame home and commercial markets.
- Dempsey Timber Engineering in Ireland which specialises in the supply and installation of timber frame homes and engineered roof trusses to the construction industry and also to one-off self builders.

Glennon Brothers Timber Ltd.
Dublin Road, Longford, Ireland
T: +353 43 3350800
E: info@glennonbrothers.ie



www.glennonbrothers.ie

GP Wood is one of Ireland's largest and most diversified timber processing companies

- The merger between Graingers and Palfab combines the best of both mills in producing renewable energy, quality fencing and construction timber along with garden, pallet and packaging products.

GP WOOD



GP Wood is one of Ireland's largest suppliers of sawn softwood products. GP Wood understands the importance of softwood as a valuable renewable resource and is committed to promoting its use in an expanding range of sustainable applications. We are committed to providing quality products and service excellence to our many and varied clients.

GP Wood was formed in April 2013 as a result of the merger between two of Ireland's most successful timber processing companies, the Grainger

Group and Palfab Group, both founded in 1977. Since the merger, GP Wood is committed to investing €5 million in a range of initiatives including product enhancements.

The group employs approximately 150 staff with a further 250 indirect employees in their forestry operations. Timber manufacturing focused on the construction, fencing, garden leisure and packaging markets is the core business of the group. We operate two of Ireland's largest and most technologically advanced sawmills, both

located in West Cork. We have state of the art facilities for kiln drying, machining and timber treatment. In 2005, the Group constructed Ireland's first large scale commercial biomass CHP plant which was designed around the Enniskeane sawmill's energy requirements. The plant produces 2.5 MW of electricity which is sold to the national grid, and 6 MW of thermal energy.

In addition to producing our own sawn products, we also import part-processed timber. The Group has diversified into added value markets

through its joint venture investment in Eirebloc, manufacturers of pallet blocks from recycled timber.

GP Wood
Enniskeane Co. Cork, Ireland
T: +353 (0)23 8822500



www.gpwood.ie

Policy of diversification pays dividends

- Jim McNamara, MD, has identified the leisure market as a major outlet for Laois Sawmill products.
- Laois Sawmills supplies a wide customer base including leisure and garden markets as well as providing quality sawn timber, fencing and wood pellets.

LAOIS SAWMILLS



Based on the outskirts of Portlaoise, Laois Sawmills is regarded by its customers in Ireland and the UK as one of the more innovative sawmills on these islands. The company diversifies and adds value to its product range to create a wide customer base. The company is divided into three sections:

- Sawmill, which processes the company's logs and creates a high quality finished product.
- Wood Pellet and Woodchip Plant – trading as 'Greenwood'. It produces quality wood pellets and dried woodchip from sawmill residue.

- Laois Garden World – the popular centre which sells the company's own products as well as a wide range of other products to retail customers.

The fencing line processes a wide range of panels, picket, trellis and stakes exclusively for Groundforce who market and sell the company's products along with their own range throughout Ireland.

Laois Sawmills has a policy of diversification, which ensures that it max-

imises all its logs from the minute they arrive at the factory weighbridge until final packing in their state of the art sawmill and delivered throughout Ireland, England, Scotland and Wales.

The company continues to invest in technologically advanced sawmill equipment to ensure that it stays ahead of its competitors in delivering high quality products.

Laois Sawmills
Stradbally Road,
Portlaoise,
Co. Laois
T: 057 86 21075



Murray Timber Group strives to provide ultimate product quality at the most competitive price

MURRAY TIMBER GROUP

- Eased edged planed all over Sitka spruce.
- Patrick, Paddy and John Murray.
- Load of SNR sawn timber for export.



Ballygar Forest where the demesne land of Aughrane Castle was bought in 1910, is one of the oldest Irish State forests and one where for a variety of reasons, second rotation plantations are fairly general. – H.M. Fitzpatrick, The Forests of Ireland, 1965.

Twelve years after *The Forests of Ireland* was published, Paddy Murray Managing Director founded the Murray Timber Group in nearby Ballygar. At the time the annual volume harvested in Irish forests was approximately 400,000m³, which is less than half the

total processing capacity of the Murray Timber Group today.

Since 1977, the two Murray Group sawmills in Ballygar, Co. Galway and Ballon, Co. Carlow have grown to become the largest, most progressive and flexible sawmills in Ireland.

The company is an indigenous family run business which processes over 500,000m³ of timber and has a capacity to produce over one million m³. It launched its SNR brand of eased edged construction timber in 2008 which

competes successfully against the best in the world. Kiln dried timber from Murray Timber Group is X-Ray graded according to the European EN14081 machine grading standard. The timber is planed after the drying process to ensure maximum uniformity of size and ease of handling for the end user.

Murray construction timber bears the CE mark to denote its conformity to the European directive. The Group supplies products to the construction, garden, fencing and packaging markets in Ireland, the UK and France.

Murray Timber Group Ltd
Ballygar, Co. Galway, Ireland.
T: +353 (0) 90 6624688
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Ballon, Co. Carlow, Ireland.
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E: info@mtg.ie

MTG Forestry Department
T: +353 (0) 90 6624688
E: forestry@mtg.ie


www.mtg.ie

World leader in timber treatment,
protection and preservation

- Board Walk, Connemara National Park, treated with TANALITH® E.
- Roadside fencing, treated to IS435 standard.
- Lonza is a supplier of the incising machinery Excalibur and Sidewinder.

LONZA WOOD PROTECTION



Lonza Wood Protection, a business of Arch Timber Protection Ltd., is a Lonza company. Lonza is the leading name in global wood protection.

The company is a leader in the research, development and supply of timber protection.

Lonza is the leading supplier of products and engineering services for the effective preservative treatment of fencing timbers, including Tanalith® the copper, triazole and BARamine based wood preservative (further in-

formation Paul Harvey, Business Manager (IRL)). Other leading brand preservative products such as TANATONE® and VACSOL® are used by a wide range of timber companies throughout the UK and Ireland to pressure treat timber and provide long term protection against decay and insect attack.

The resulting treated timber can be used with confidence in every possible timber end use situation, from internal building timbers to timbers used in both ground and water contact applications.

DRICON® is the most renowned fire retardant protection available for timber. Used around the world for over 25 years, DRICON® treated timber has a proven surface spread of flame protection for interior and weather protected external applications, which meets both British and European building standards. It is the only fire retardant treatment for timber that carries the prestigious BBA (British Board of Agrément) certificate. NON-COM® Exterior treatment also has a proven track record of fire protection for exterior timber applications.

Arch Timber Protection, a Lonza company

E: paul.harvey@lonza.com
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Lonza
Lonza Wood Protection

www.lonzawoodprotection.com/eu/

The following organisations support and sponsor WMF promotional and educational projects

- AHEC
- COFORD
- RIAI
- *Simon O'Driscoll Furniture*

WMF SUPPORTERS



*Magnus Celestii, in ash
Joseph Walsh Studio*

AHEC Europe – providing promotional assistance and technical information on American hardwoods

AHEC

American Hardwood Export Council

- *Along the Lines of Happiness*, a creative installation in American red oak, maple and cherry by Sebastian Cox and Laura Ellen Bacon (www.alongthelinesofhappiness.info)
- *Room on a Hill*, an outdoor playground by architect Asif Khan made in thermally modified U.S. tulipwood and ash
- *Rotunda Serotina*, designed by Kolman Boye and made by Benchmark in American cherry



The American Hardwood Export Council (AHEC) has been at the forefront of wood promotion in Europe, successfully building a distinctive and creative brand for U.S. hardwoods since the mid 1990s.

In 2016 alone, AHEC initiated three major projects in American hardwood: *The Smile*; *Along the Lines of Happiness*; and *The Workshop of Dreams*. These demonstrated the performance potential of sustainable wood as well as providing valuable inspiration.

The Smile was a landmark project for the prestigious London Design Festival. AHEC invited architect Alison Brooks to create a structure from cross-laminated timber (CLT) panels. She chose to make a wooden 'mega-tube' with the help and guidance of engineering group, Arup. Made from the first ever industrial-sized panels of tulipwood CLT, which is considered for structural uses in future builds.

Along the Lines of Happiness in American cherry, maple and red oak was on show at the Interni exhibition

for Milan Design Week. AHEC created a display with a twist by live-making some of the sculpture. Watching sculptor, Laura Ellen Bacon and designer-craftsman, Sebastian Cox steam-bend these beautiful timbers and weave them into the structure drew large crowds.

The Workshop of Dreams, a creative journey in American hardwoods, brought together four of Spain's most exciting architects and designers from diverse cultural fields who celebrated Spanish creativity and craftsmanship,

resulting in the creation of four beautiful objects which were exhibited at the Hay Festival, Segovia.

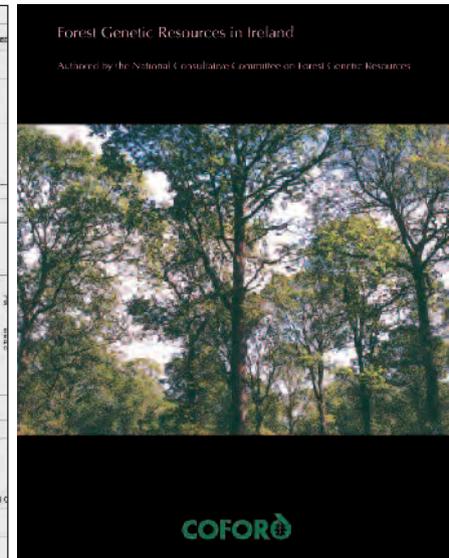
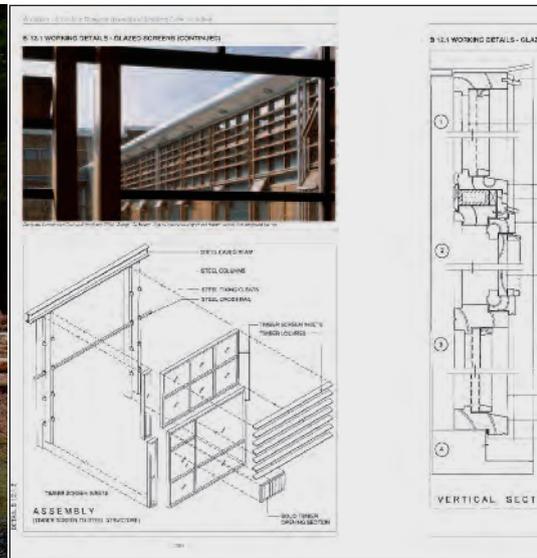
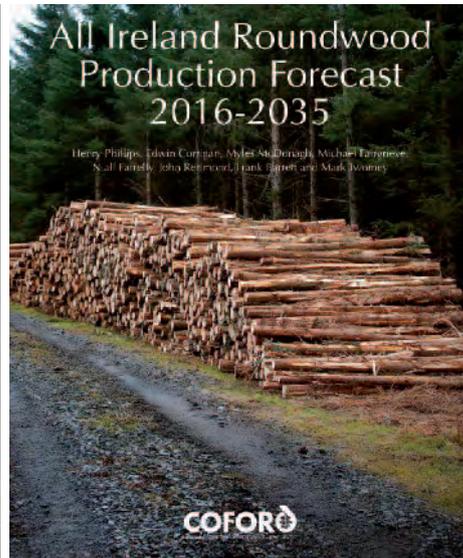
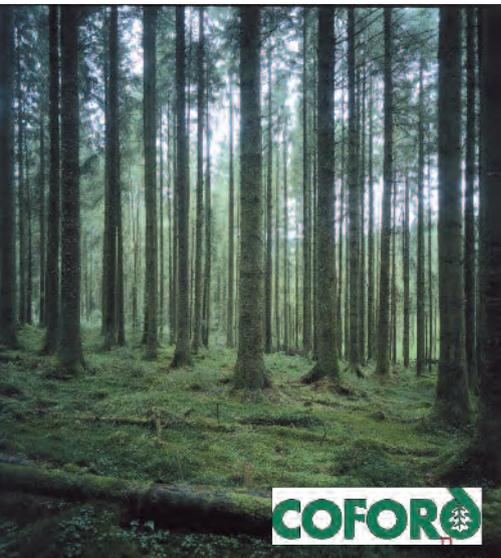
Keep up to date with AHEC news by following us on twitter and Instagram at [@ahec_europe](https://twitter.com/ahec_europe) and by visiting americanhardwood.org.



Establishing and strengthening links between research and industry

COFORD publications include

- The COFORD Connects series of practical information notes which review various aspects of forestry.
- All Ireland Roundwood Production Forecast 2016-2035.
- Woodspec - A Guide to Designing, Detailing and Specifying Timber in Ireland in association with WMF.
- Forest Genetic Resources in Ireland.



COFORD - the Programme of Competitive Forestry Research for Development - is based in the Research Division of the Department of Agriculture, Food and the Marine.

COFORD was established in 1993 and its current programme is funded by the Irish Government under the National Development Plan.

COFORD is responsible for the development of national forest research and development policy and priorities the formulation and

implementation of programmes that address these issues as well as transferring the knowledge generated into practice.

COFORD's mission is to:

- establish and strengthen links between research and industry;
- determine forest research and development needs to maintain international competitiveness, provide sustainable employment, encourage innovation and enhance environmental harmony;
- evaluate research and development

progress and transfer technology to ensure maximum benefit.

COFORD's programme objectives include:

- improving the share of home-grown wood products in the local and export markets and developing innovative wood products and conversion technologies in line with market requirements and quality systems;
- improving the cost competitiveness and underpinning the economic and environmental sustainability of the

forest industry through the investigation of silvicultural techniques, wood harvesting and transport systems, forest health and vitality, and environmental interactions of forests and forest operations.

The RIAI is the national body for the promotion, regulation and support of architecture in Ireland

RIAI

The Royal Institute of the Architects of Ireland

Winners of Wood Awards Ireland supported by the RIAI

- Overall winner, 2016 – Samuel Beckett Civic Campus, Ballyogan Rd., Dublin by Bucholz McEvoy Architects Ltd.
- Joint construction category winner 2016 – Model School, Inchicore, Dublin by Donaghy and Dimond Architects.
- Overall winner 2014 – Operations and Maintenance Centre, Dun Laoghaire-Rathdown Co. Council, Ballyogan, Dublin by Bucholz McEvoy Architects Ltd.



Founded in 1839, the RIAI supports and regulates the architectural profession.

Support services are also provided to architectural technologists.

The RIAI engages with government, the professions, industry, clients and the public to promote the value of quality and design in architecture.

Its aim is to deliver attractive and sustainable built environments; to enrich our distinctive culture and heritage; to contribute to the

competitiveness of our economy; and to improve quality of life for the people of Ireland, today and for generations to come.

The RIAI promotes the value that architecture brings to society for everyone's benefit and engages with government, the professions, industry, clients and the public to deliver quality and sustainability in the built environment.

As the official registration body under the Building Control Act 2007, the RIAI

is committed to discharging its obligations to administer the Register of Architects in Ireland.

Find out about our extensive programme of public events and our publications by signing up for our free monthly public newsletter on www.riai.ie.

Visit the RIAI Bookshop – Ireland's largest architectural and design bookshop.

RIAI
8 Merrion Square,
Dublin 2
(Open 9am-5pm, Mon-Fri).

T: +353 (0)1 662 8593
E: info@riai.ie



www.riai.ie

Simon O'Driscoll Furniture creates a unique range of internal and external furniture

- Outdoor furniture, Bryce House, Glengarriff, Co. Cork
- Tree Installation DELL - 3rd Floor Long View, Mahon Point, Cork
- Ballymun Primary Care Centre, Co. Dublin



SIMON O'DRISCOLL FURNITURE

After 20 years designing furniture for domestic and commercial interiors Simon still has a passion for designing and making furniture that reflects great attention to detail, is made to last and is timeless. Combining the best of natural and manmade materials sourced from sustainably managed forests he keeps the designs simple but yet unique. Simon O'Driscoll Furniture creates unique furniture for office interiors including boardrooms and reception areas while in the hotel, restaurant, ecclesiastical and public sector he can supply furniture from his

existing range or make to order. Furniture from his range can be viewed on the website (sodf.ie) or viewed by appointment.

Testimonials

O'Driscoll Furniture brought their technical know-how to a highly complex project for my client, DELL, performing in all areas, including quality of service and execution to an exceptionally high standard of finish. I would have no hesitation in recommending this firm.
Jason Cronin - Virtuscm Contract Management, 2013.

O'Driscoll Furniture successfully worked with us in delivering a design and installation of Oak and Steel Beam Seating Waiting Area furniture in a HSE Primary Care Centre in Ballymun for our client. O'Driscoll furniture was meticulous in detail and assisted in preparing mock-ups to achieve a good balance of excellent ergonomics and seating capacity in a visual striking design. We have no hesitation in recommending O'Driscoll Furniture for high quality furniture installations.

David Lanigan, Director, A&D Wejchert & Partners Architects, 2015.

Simon O'Driscoll Furniture
43 William Street North, Dublin 1
Ireland

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E: simon@sodf.ie
www.sodf.ie



*Furniture winners - Wood Award Ireland 2014
Winners - Grand Designs Live London 2015*



PROMOTING WOOD

Most Wood Marketing Federation projects have a strong educational content, especially in relation to wood design in Ireland. Our programme is aimed at a number of audiences including wood users, designers and specifiers along with our future audience such as students currently studying engineering, architecture and design in third level colleges. Projects to date include:

- Wood Awards Ireland – open to Irish architects, engineers, designers and woodworkers.
- Publication of *Woodspec – A Guide to Designing, Detailing and Specifying Timber in Ireland*.
- Third Level Student Wood Awards with entrants from colleges throughout Ireland.
- Shows and events including Venice Biennale, Plan Expo-Ecobuild, Timber Expo, Bloom Garden Festival and Electric Picnic.
- Studies and seminars on wood design aimed at architects, engineers, designers, planners and other specialist groups.
- Irish Timber Information Centre (ITIC), established to provide information on wood and wood products.
- Production of wood promotional and educational literature including posters, website wood.ie and the *Talking Timber* series on a range of subjects on wood products, wood treatment, design and usage.

WAI promotes wood as a sustainable material in innovative construction, design and conservation

- Overall Winner 2016: Samuel Beckett Civic Campus, Bucholz McEvoy Architects Ltd.
- Innovation Award 2016: Magnus Celestii, Joseph Walsh Studio, Sculpture Park, Salisbury, England.
- Joint Construction Award 2016: The Model School, Inchicore, Dublin by Donaghy + Dimond Architects.
- Innovation Award 2014: Contemplation Space, Mater Hospital, Dublin by Garvan de Bruir, Laura Magahy & Michael Goan.
- Special Award 2016: The Carmelite Prayer Room, Clarendon Street Priory, Dublin by Niall McLaughlin Architects.
- International Award 2016: Wind and Rain Bridge in Fujian Province, China by Donn Holohan, Hong Kong University.

WOOD AWARDS IRELAND



Wood Awards Ireland (WAI) promotes wood as a sustainable material in innovative construction, design and conservation. The project is compatible with the Federation's mission "to promote wood as a renewable, sustainable and versatile natural material".

Organised by the Wood Marketing Federation and supported by the RIAI, WAI rewards architects, engineers, designers and wood workers in creating work in Ireland and overseas incorporating wood as an inherent medium in their projects with the emphasis on in-

novation and sustainability. There are eight categories covering large-scale construction, residential buildings, restoration projects, structural works, furniture, innovation, sculpture, start up enterprises and international works.

The award sculptures created by the internationally acclaimed artist Michael Warren are highly prized by the architectural, engineering and design communities. The judging panel chaired by Ciaran O'Connor, State Architect comprises Ireland's foremost architects, designers and engineers.

Projects are assessed by the judging panel before the shortlist is announced. All shortlisted permanent structures entered for the awards are inspected by the judges.

Sustainable timber sourcing and usage is a key element of the project with emphasis on energy efficiency. Timber used must be sourced in sustainably managed forests and conform with the EU Timber Regulation (No. 995/2010).

Wood Awards Ireland 2014 sculpture, Michael Warren

Wood Awards
IRELAND



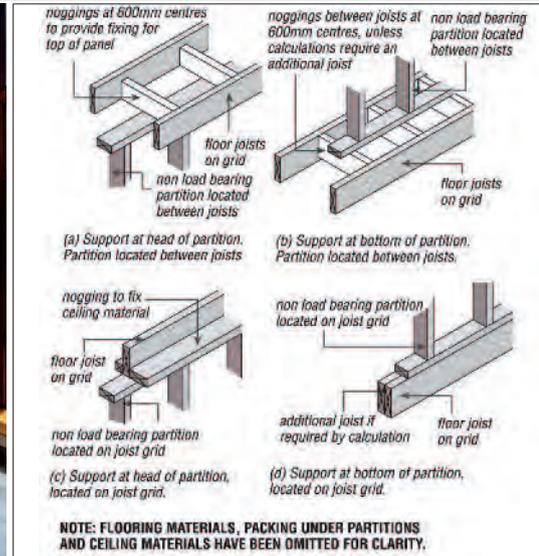
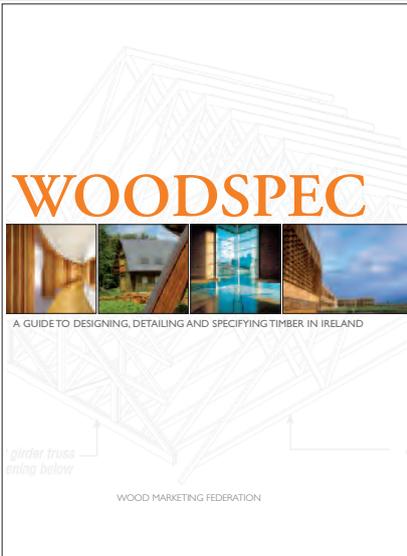


Magnus Celestii in ash
Joseph Walsh Studio
Winner of the Innovation Award, Wood Marketing
Federation Wood Awards Ireland 2016.

Comprehensive timber guide for architects, engineers, designers and other specifiers

WOODSPEC

- *Woodspec – A Guide to Designing, Detailing and Specifying Timber in Ireland*, published by the WMF.
- EU Food and Veterinary Office, Grange, Co. Meath and Marine Institute, Galway, both buildings designed by Ciaran O'Connor, OPW, and featured as case studies in *Woodspec*.
- Detail drawing from *Woodspec*.



Woodspec – A Guide to Designing, Detailing and Specifying Timber in Ireland was published in 2001 and modified in the intervening years to reflect changing standards and specifications in wood construction, design and preservation.

It is the first comprehensive guide to wood usage in Europe and its success reflects a growing confidence in wood usage and design in Ireland.

It includes principles of good practice, case studies and five comprehensive

technical sections covering design guidance, detailed drawings, timber specifications, building specifications and reference material.

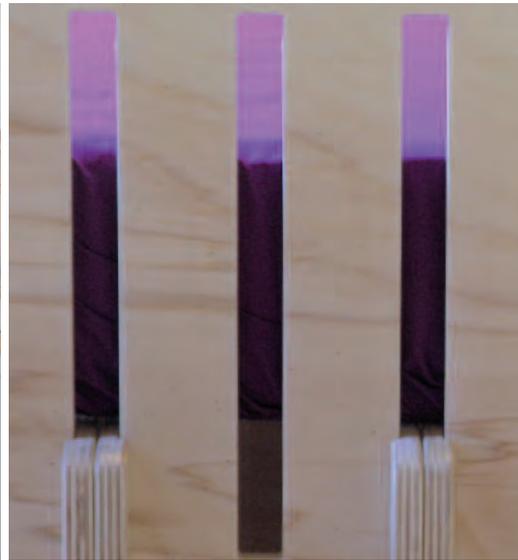
Although it is aimed primarily at architects, engineers, designers, builders, woodworkers, specifiers and students, anybody with an interest in wood and woodworking will find it an indispensable guide. *Woodspec* is compatible with the mission of the Wood Marketing Federation 'to promote wood as a renewable, sustainable and versatile natural material'.

Wood is a versatile building and design material capable of producing a diverse range of products and finishes. It is an environmentally friendly and sustainable material. Those who design and build in timber, do so, safe in the knowledge that what they use will be replaced, given the renewable nature of wood. It has endless variations, but it requires knowledge and expertise, and a different creative and practical approach to other building materials. *Woodspec* provides the necessary information to use wood practically and innovatively.

COFORD, Department of Agriculture, Food & the Marine host the *Woodspec* website and provide a technical advice backup service in collaboration with the Wood Marketing Federation.

www.woodspect.ie

- *'Timber Systems Through Circumstance'* by Niamh Denny, Dublin Institute of Technology winner of the 2016 architecture award.
- Interlocking panels in *'Fixing Free Bed'* designed by Jens Kosak, Letterfrack College, winner of 2011 Design Award.
- Andrew Murphy (right), Waterford Institute of Technology explaining his project with judging panel Des O'Toole, Coillte, Duncan Stewart, Earth Horizon and Simon O'Driscoll, O'Driscoll Furniture.



Launched in 2006 the Third Level Student Wood Awards play a key role in the Wood Marketing Federation educational programme.

The annual awards organised in association with Coillte are now much sought after by third level students of architecture, engineering and design in Ireland.

The awards are open to students who incorporate wood as an inherent element in their projects. Award winners have gone on to pursue

successful careers in wood and related businesses and have exhibited at Irish and international shows. The objective of the awards is to encourage students to explore functional, aesthetic and design aspects of wood and wood products.

The awards are judged by top professionals in the fields of architecture, engineering and design.

Coillte is the main sponsor and the awards are also supported by the Department of Agriculture, Food and the

Marine. Duncan Stewart, architect, environmentalist and television producer has been a major supporter of the awards since their inauguration along with judges such as Simon O'Driscoll, Simon O'Driscoll Furniture and Des O'Toole, Coillte.

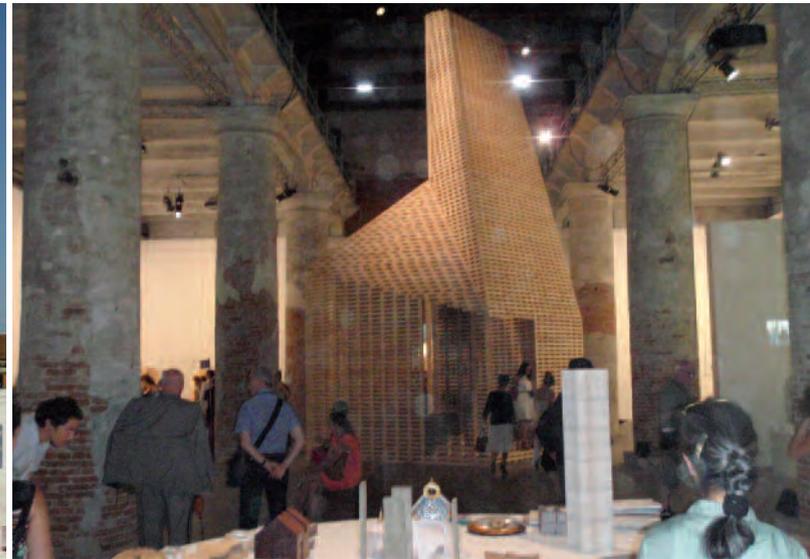


Making Space, Werburgh Street, Dublin, by Fergal Rainey, University of Ulster, winner of the architectural award 2012. His brief was to design a house and workshop for a guitar luthier and his family. Building materials included Irish grown spruce and Dublin calp limestone.

Vessel is not only a fine example of Irish creativity and craftsmanship but an excellent advertisement for Sitka spruce and the Irish forest industry

- Sitka spruce lengths being transported by barge to the Arsenale, Venice.
- Vessel was exhibited in the Central Pavilion, Corderie building.

VESSEL IN VENICE



A large articulated truck being transported by barge along the canals of Venice is not a common sight, especially if it is laden down with 5,000 carefully sawn and planed Sitka spruce timber lengths. The cargo was bound for the 2012 Venice Biennale the most prestigious architectural event in the world.

The timber was sourced in Coillte forests, sawn and kiln dried by Glennon Brothers and finished by Gem Construction based on a brilliant design by O'Donnell + Tuomey, Architects, Dublin.

Entitled *Vessel*, the original design and model so impressed David Chipperfield, artistic director of the Biennale that O'Donnell + Tuomey were invited to install the work in the Central Pavilion.

The full production cycle took five months including harvesting, sawing, assembly, transport and reassembly in Venice along with other aspects of the exhibition, which included Irish designed furniture and craft and music as well as a poem by the Nobel Laureate Seamus Heaney who sadly died on 30th August 2013. Located in a key

location, *Vessel* had to compete against international architectural superstars such as Kazuo Sejima and Luigi Snozzi. For example it was within a few metres of the Norman Foster brash installation *Gateway*. *Vessel* acted as an ideal counterweight to Foster's visual extravaganza.

Standing over nine metres tall it is not only a fine example of Irish creativity and craftsmanship but an excellent advertisement for Sitka spruce and the Irish forest industry. The reaction from visitors including builders, architects,

engineers, urban planners and designers was extremely positive.

Funding was facilitated by the Wood Marketing Federation with generous sponsorship provided by Coillte, Glennon Brothers and the Murray Timber Group with support from the Department of Agriculture, Food and the Marine. The exhibition took place from August to mid November and was visited by close to 200,000 people.

- Visitors to the Wood Marketing Federation pavilion at 2014 Timber Expo, design by Ciaran O'Connor constructed in Sitka spruce supplied by the Murray Timber Group.
- Woodspace designed for PlanExpo, Dublin by Ciaran O'Connor combining American hardwoods red oak, tulip wood and maple. Sponsored by AHEC.
- Pyramid in elm by Michael Warren, at PlanExpo.



The Irish timber processing sector has presented a partnership approach at a number of events in Ireland and the UK in recent years including PlanExpo and Timber Expo. The Wood Marketing Federation provides the pavilion *Woodspace* which is an ideal setting for Irish processors to market their products to a domestic and international audience.

Commissioned by WMF and designed by Ciaran O'Connor, *Woodspace* is now proving to be an excellent demonstration area. It was built mainly in eased

edged planed all over Sitka spruce, courtesy of the Murray Group while OSB was provided by Coillte Panel Products. The exhibition and the processing mills – all members of the WMF – were well received at the show as they tick all the right boxes including quality products all sourced from sustainably managed forests with FSC certification.

Hosted by Coillte, in partnership with Enterprise Ireland, the exhibition was situated in an ideal location in the premier timber trade show in the UK.

Over 150 timber and related companies exhibited and over 5,000 traders, architects, engineers, builders, contractors and designers visited the exhibition as well as representatives from State agencies and public bodies.

Timber Expo provided an important opportunity for the Irish timber sector to engage with customers and drive exports to the UK, a key strategic objective of Coillte, Irish sawmills, Enterprise Ireland and the Wood Marketing Federation.

Woodspace featured in a number of Irish shows including PlanExpo as a stand-alone Sitka spruce construction and combined with other species such as American hardwoods, which, like Sitka spruce were sourced in sustainably managed forests.

SUSTAINABLE LIVING

Garden of Plenty – award winning exhibition at Bloom

- Garden of Plenty – Sustainable Living before the arrival of 110,000 visitors. Designed by Wood Collective in collaboration with the Wood Marketing Federation, the exhibition won the Silver Gilt Award.



Sitka spruce – sawn and engineered – was the mainstay at the Wood Marketing Federation exhibition at the 2013 Bloom Garden Festival. Winner of the Silver Gilt medal, it created huge interest and publicity for Irish timber among the 110,000 visitors. The combination of eased edged planed all over sawn timber from the Murray Timber Group and OSB provided by Coillte Panel Products provided a spectacular setting for the productive garden featuring over 50 different varieties of fruit, vegetables and herbs.

The exhibition was the first time that this combination – food and wood – was attempted at an Irish exhibition, which is surprising as both are compatible in many ways. Wood has been used for centuries in the preparation of food as well as storage and transportation while wooden barrels or casks are still the preferred containers for whiskey, wine, sherry and brandy. Up until the 16th century, Ireland exported staves for barrel making and today sawn timber and panelboard material is exported around the world.

THE MEDIUM IS THE MESSAGE

WMF conferences promoting wood as a sustainable material

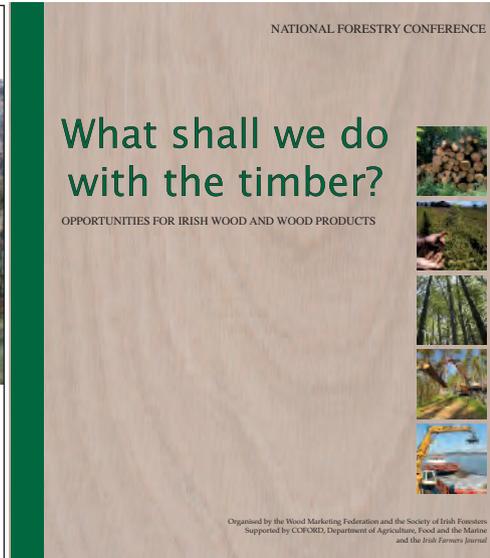
The Wood Marketing Federation produces special edition booklets to accompany all conferences such as

- Minor Conifers in Ireland
- What shall we do with the timber



Wood Marketing Federation conferences and information days have influenced forestry and forest products policy in Ireland. For example, our seminar and associated research on timber roadside fencing influenced decision makers to move from predominantly concrete fencing to wood.

More recently, the following seminars challenged established thinking on the potential of homegrown and sustainably sourced timber in fencing and construction as well as wealth creation in rural development:



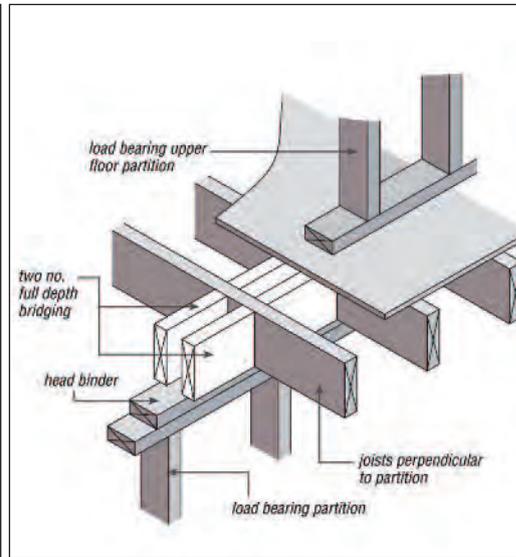
- Preservation of timber in ground contact.
- Cross laminated timber (CLT) in multi-storey construction.
- Wood mobilisation in Ireland.
- What shall we do with the timber? Future timber supply and markets.
- What shall we do with the hardwoods? Challenges facing forest owners and processors of hardwood species.
- Minor conifers. An appraisal of the silvicultural and marketing potential of coniferous alternatives to Sitka spruce.

Wood Marketing Federation

Irish Timber Information Centre
questions answered on wood, the renewable resource



ITIC answers queries on wood and wood products from specification to usage and species suitability to treatment.



ITIC was established in 2015 by the Wood Marketing Federation (WMF) in collaboration with NUI Galway.

The main objective of this initiative is to provide information on a wide range of timber issues relevant to stakeholders working in wood including architects, engineers, designers, builders, timber preservation specialists, third level colleges, wood workers and other specifiers. ITIC also prepares literature on timber design, construction, usage and preservation.

WMF believes that ITIC can play a key part in advancing the spread of knowledge on a wide range of wood related topics. It is compatible with most of our other projects which have a strong promotional and educational content because we recognise that there is still a lack of information relating to wood usage and design specific to Ireland. ITIC provides:

- The Irish timber and related industries with a single point of contact for technical and regulatory information.

- Information to timber specifiers in architecture, engineering, design, processing, building and preservation as well as third level students and researchers.
- Information on aspects of wood through the compilation of literature on wood testing, processing, engineered wood and certification.

Queries will be answered as soon as possible after consultation in-house or with experts in Wood Technology Ireland (WTI).

ITIC is supported by the WMF, COFORD, Department of Agriculture, Food and the Marine, NUIG and stakeholders in the forestry and forest products sector.

If you have a query, simply go to www.wood.ie and click on the ITIC icon on the home page. Then enter your details and query, and press the 'continue' button.



Maximising the resource

THE WOOD FROM THE TREES

- Boardroom, Coillte Headquarters. Home grown timber was used throughout the building. The chairs and carved boardroom table are made from Irish grown sycamore and elm. These blend with the arched ceiling supported by spruce glulam beams.



TREE SPECIES

- Mature Norway spruce plantation, Rathdrum, Co. Wicklow. Both Sitka spruce and Norway spruce are widely used in Ireland for construction, fencing and pallet production.
- Ash at the first thinning stage, Co. Tipperary.
- Ash is used for wood energy and furniture. Its strength and elasticity makes it an ideal species for hurley manufacture.



Irish foresters began restoring the lost forest resource from 1904 when forest cover amounted to 1% of the land area of Ireland after centuries of exploitation and neglect. The emphasis was on growing high yielding mainly exotic species from western North America for most of the last century.

During the past decade new plantation owners have been planting more broadleaves. In recent years, the average annual afforestation programme comprised 70% introduced species and 30% native broadleaves mainly as

a result of planting by farmers who made better quality land available for afforestation.

These species will take time to mature so Irish timber processors will rely on spruce, pine, larch and a number of minor conifer species for the foreseeable future as well as imports from countries where timber is sourced from sustainably managed forests.

In time, home-grown broadleaves or hardwoods will be available to Irish processors and end users.

We feature the most common species, all of which, are available in Ireland. They comprise homegrown timber and imports from Europe, North America and the tropics.

Specifiers and purchasers should ensure that wood complies with the European Union Timber Regulation (EUTR). This guarantees that timber originated in a forest where sustainable forest management is practised.

HOME GROWN AND EUROPEAN Softwood

- Sitka spruce
- Norway spruce
- Larch
- Scots pine
- Douglas Fir
- Western red cedar

Hardwood

- Ash
- Oak
- Alder
- Beech
- Birch
- Sweet chestnut
- Wild cherry

NORTH AMERICAN

- Hardwood
- Cherry
 - Tulipwood
 - Red Oak
 - Hard Maple
 - Soft Maple
 - American Alder

OTHER

- Iroko
- Teak
- Sapele

SITKA SPRUCE
IRELAND

Picea sitchensis

NORWAY SPRUCE
IRELAND

Picea abies

LARCH IRELAND

European larch
Larix decidua

Japanese larch
Larix kaempferi

SCOTS PINE
IRELAND

Pinus sylvestris

DOUGLAS FIR
IRELAND AND EUROPE

Pseudotsuga menziesii

WESTERN RED CEDAR
IRELAND, USA, CANADA

Thuja plicata

Source

Native to British Columbia and the northwest United States; grown extensively in Ireland, where it is the highest yielding species.

Timber on the Irish market is home grown from sustainably managed forests, and competes successfully with other European white-woods.

Wood

Sapwood is creamy white to light yellow and merges gradually into the heartwood, which is light pinkish yellow to pale brown with some irregular darker pink streaks; straight even grain; even, medium texture; somewhat lustrous. Irish timber is fast grown, light in weight and coarse in texture; non-durable.

Uses

Construction; formwork; packaging; pulp and paper products; poles; fence rails.

Source

Grown successfully in Ireland especially in sites vulnerable to frost damage. North and central Europe, available from Scandinavia, Baltics and the Russian Federation.

Wood

Almost white to pale yellowish brown, with no discernible difference between sap and heartwood; straight grained; fine textured; growth rings visible, but less prominent than in European redwood; slight natural lustre; non-durable.

Uses

Construction; joinery and carpentry; plywood; particle board and pulpwood; veneers; packaging. Finishes better than Sitka but slower growing,

Source

Grown throughout Europe, including Ireland. European larch was introduced to England in 1620 and made its way to Ireland in the following century.

Japanese larch, a native of Honshu Island, Japan, is more popular than European larch. In recent years hybrid larch has gained in popularity and combines the best qualities of both parents.

Wood

Sapwood: narrow, pale yellow; heartwood: pale reddish-brown to brick red, sharply differentiated from sapwood; clearly defined growth rings; contains hard knots; straight grained; resinous; moderately durable.

Uses

Boat building; flooring; transmission poles; fencing; piling; cladding; exterior construction and joinery.

Source

Scots pine is the only native Irish conifer that has commercial value as a forest tree. It has little opposition as there are only two other native conifers in Ireland: juniper and yew.

Was a major tree in Ireland's primeval forests but almost died out in early Christian times. Experienced a revival from the 18th century.

Wood

Scots pine – or red deal as it is known in the timber trade – is suitable for a wide range of high value end uses. It machines well and is used for joinery, furniture and flooring.

Uses

If treated with preservatives it has an extensive range of external uses including transmission poles, fencing stakes, posts, gates, railway sleepers and decking.

Source

Western USA and Canada; old growth forests can produce large-dimensional clear stock.

Wood

Sapwood: whitish to pale yellow, or reddish white; slow-grown material has a narrower band of sapwood than fast-grown stock. Heartwood: variable, generally a pale reddish brown, but can range from yellowish to deep red; growth rings distinct; grain straight, even or uneven; texture uniform in slow grown stock, often uneven in faster-grown material; moderately durable.

Uses

One of the few conifers from which clear timber or baulks of large dimension in long lengths can still be obtained. Uses include: heavy construction; flooring; interior trim; window joinery; veneer; plywood; poles; piles; paper pulp, cladding.

Source

British Columbia, and to some extent Washington, Oregon and southern Alaska. Grows well in Ireland and has been used in mixtures as it is an excellent 'nurse' species.

Wood

Sapwood: whitish; heartwood: dark chocolate brown. May be variegated; ages to reddish brown; on weathering assumes a silver grey colour; straight even grain; texture medium; cedar-like odour; very durable; wood acidic and corrodes most metals when damp (except stainless steel, silicon bronze or copper).

Uses

Naturally durable, it is an excellent wood for external trim and cladding; posts and poles; shakes and shingles; boat building; packaging and decking.

ASH
IRELAND AND EUROPE

Fraxinus excelsior

OAK
IRELAND AND EUROPE

Sessile
Quercus petraea
Pedunculate
Quercus robur

COMMON ALDER
IRELAND AND EUROPE

Alnus glutinosa

BEECH
IRELAND AND EUROPE

Fagus sylvatica

BIRCH
IRELAND AND EUROPE

Betula spp.

SWEET CHESTNUT
IRELAND AND EUROPE

Castanea sativa

Source

Throughout Europe, including Ireland. Grown widely in Ireland until recently when it was threatened by *Chalara* ash dieback.

Wood

White to light brown, usually no distinction between sap and heartwood; growth rings distinct with band of obvious pores which give attractive figure on flat sawn surfaces; may have irregular dark brown to black heartwood which is sound and can give an attractive feature. Attractive joinery timber. Typically straight grained, it is tough and flexible; perishable.

Uses

Hugely popular tree in Ireland for making hurleys. Ideal for manufacture of furniture and chairs; sports goods, agricultural implements and tool handles; gymnasium equipment; flooring; plywood and decorative veneer (panelling).

Source

Both sessile and pedunculate are native to Ireland and much of Europe. Can get clear boles up to 15m long in some European forests.

Wood

There is no difference between the wood of the two European species of oak. Sapwood is pale cream, 25 – 50mm wide; heartwood ranges from yellowish brown, light tan to deep brown. Growth rings are obvious due to alternating bands of large pored early wood and dense late wood, and produce a flare pattern on flat sawn surfaces. Fast-grown oak is tough and hard, slow grown is easy to work; grain is normally straight, but may be irregular.

Uses

Furniture and cabinet making; joinery and panelling; flooring; construction; veneers; exterior trim and cladding; boat building; fencing and railway sleepers.

Source

Common alder is native to Ireland and is available in small quantities.

Most alder sold in Ireland is likely to be American or red alder (*Alnus rubra*).

Wood

When freshly cut, alder is pale in colour but darkens in the light to a light reddish brown colour, resembling cherry. There is little differentiation between heartwood and sapwood. It is straight-grained with an even texture and of relatively low density. It takes a good finish and can readily be stained and polished. Non-durable although it can resist decay when submerged in water.

Uses

Furniture, especially kitchen cabinets, internal joinery, mouldings.

Source

Mid to southern Europe, including Ireland, although we are near the northern limit of its range. It is a naturalised species in Ireland but not native.

Wood

No clear distinction between sap and heartwood; pale reddish brown (deep reddish brown after steaming); growth rings evident, ray tissue showing as small spindle-shaped marks on flat sawn surfaces to dark irregular flecks on quarter sawn; no distinct figure; perishable. High movement.

Uses

Furniture (solid and laminated) and interior joinery, construction and flooring; domestic woodware, tool handles, turnery and craft; plywood.

Source

Limited supply of native birch available. Most commercial birch comes from North America. Tree improvement schemes currently being carried out on native birch.

Wood

Birch is normally pale or light brown, frequently with darker streaks or flecks. The wood is hard, of high density and with good wearing properties. Non-durable.

Uses

Widely used in Europe for the manufacture of plywood, both throughout and as a facing veneer. Also used as flooring, furniture and for turned items.

Source

The Romans introduced it to Britain but nobody is sure when it arrived in Ireland. It may have been introduced here by the Normans. We know that it was certainly growing in Ireland in the 17th century as the writings of O'Sullivan Beare show that it was well established as early as 1625. Also known as Spanish chestnut, it is a Mediterranean species.

Wood

Growth rings are obvious and the species has many similarities with oak.

Uses

In some countries it is valued as much for its edible nuts as its wood. The wood is excellent and is used for furniture, flooring and veneering. It makes excellent fencing posts and providing it is dried properly, it will last for 25 years without preservation.

AMERICAN CHERRY
NORTH AMERICA

Prunus serotina

Source

American cherry is from the northeast US hardwood forests and is unique to North America

Wood

Cherry's heartwood can vary from rich red to reddish brown and darkens on exposure to light with time. The sapwood is creamy white. The wood has a fine uniform, straight and unpronounced grain with a fine smooth texture. The small brown pith flecks, pin knots and gum pockets or streaks are natural characteristics of cherry, but their occurrence varies regionally.

Uses

Furniture, cabinet making and high class joinery. It is widely used for doors, panelling, architectural interior joinery, mouldings and kitchen cabinets.

TULIPWOOD
NORTH AMERICA

Liriodendron tulipifera

Source

American tulipwood is one of the most prolific US hardwood species and is unique to North America

Wood

The sapwood in tulipwood is creamy white whereas the heartwood can vary from pale yellow or brown and even green to purple in extreme cases. The wood darkens with time on exposure to UV light and the green colour will turn brown. The wood of tulipwood is straight-grained with a medium to fine texture.

Uses

Furniture, doors, panelling, architectural interior joinery and mouldings and kitchen cabinets. It is also used in certain applications for construction.

RED OAK
NORTH AMERICA

Quercus rubra, Q. falcata

Source

American red oak is the dominant species in the US hardwood forests.

Wood

In general the sapwood of red oak is light brown and the heartwood is often, but not always, pinkish to reddish brown. The wood of red oak is generally straight-grained and coarse textured. The wood is figured with medullary rays – a feature of all true (Quercus) oaks – smaller in red oak than white oak.

Uses

Furniture, flooring, doors, architectural joinery and mouldings and kitchen cabinets. It is also used in certain applications for construction.

HARD MAPLE
NORTH AMERICA

Acer saccharum

Source

Hard maple grows naturally in the hardwood forests of North America.

Wood

The sapwood of hard maple is normally creamy white but can show a slight reddish/brown tinge. The heartwood of hard maple varies in colour from light to dark reddish brown. Both may contain pith fleck as a natural characteristic. The wood of hard maple has a close fine texture and is generally straight grained.

Uses

All types of flooring, furniture, cabinet making, high class joinery. Widely used for table and work tops, mouldings, and kitchen cabinets.

SOFT MAPLE
NORTH AMERICA

Acer rubrum

Source

Soft maple, grows naturally in the hardwood forests of North America.

Wood

The sapwood of soft maple is normally greyish white but can be darker, with pith flecks as a natural characteristic. The heartwood of soft maple varies in colour from light to dark reddish brown. The wood is generally straight grained with fine texture. It has medium bending and crushing strength, but is low in stiffness and shock resistance.

Uses

It is used in furniture, cabinet making and joinery as well as doors, kitchen cabinets and for turning and mouldings.

AMERICAN ALDER
NORTH AMERICA

Alnus rubra

Source

American alder trees grow prolifically in the Pacific Northwest under sustainable management.

Wood

Alder is almost white when freshly cut, but quickly changes on exposure to air, becoming light brown with a yellow or reddish tinge. There is no visible difference between the sap and the heartwood, although heartwood is formed only in older or mature trees. The wood of alder is fairly straight grain, somewhat similar in character to cherry, with uniform texture.

Uses

Furniture, kitchen cabinets and interior joinery. It is also used for doors and panelling.

IROKO

Milicia excelsa

TEAK

Tectona grandis

SAPELE

*Entandrophragma
cylindricum*

Source

Tropical Africa 10° north and south of the equator, from Sierra Leone in the west to Tanzania in the east.

Wood

Freshly sawn heartwood is a distinct yellow, quickly changing to golden-brown on exposure to light. Sapwood narrow, pale and clearly defined. Grain interlocked and texture rather coarse but even; very durable.

Uses

Interior and exterior joinery; window frames and sills, stair treads, fire-proof doors; laboratory benches; piling, dock and harbour work.

Source

Teak has a wide range of distribution including Indonesia, India, Myanmar, Philippine, and Malaysia.

Wood

Heartwood is brownish red in colour and darkens as it ages. Sapwood is whitish to pale yellowish brown in colour.

Uses

Teak is resistant to all kinds of weather and is also resistant to decay and insect damage. It is used as the main material for both indoor and outdoor furniture including decking for outdoor recreation and ships. It is prized for its elasticity and solid fibre.

Source

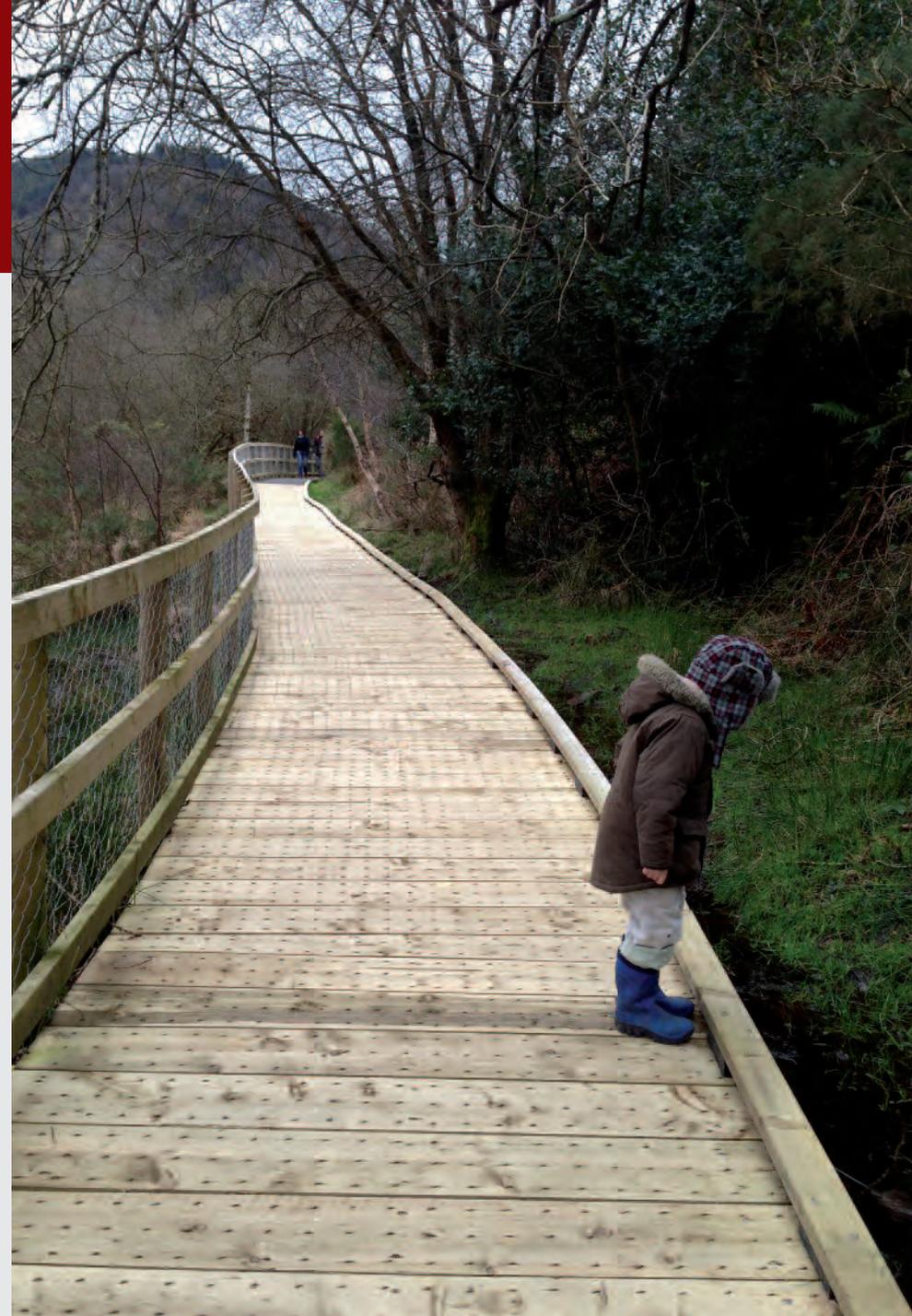
An African tree, it extends from Ivory Coast to Cameroon and eastward through Zaire to Uganda. Some of the production forests are sustainably managed.

Wood

Sapwood: grey-pink or cream; heartwood: red-brown or purple-brown. Grain: moderately interlocked or wavy. Quarter sawn stock shows a regular stripe; wavy grain produces fiddle back and roe figure. Texture is moderately fine. The wood is lustrous with a cedar-like scent.

Uses

Joinery, furniture, boat building, panelling, veneer and plywood.



Board walk, Glendalough Forest. Correct treatment with modern wood protection systems preserves not only the timber but also the soil and flora in this important heritage woodland.

FUTURE FORESTS

International architects, engineers and designers have been using wood as an inherent material in construction and other projects for generations. They specify wood for its strength, versatility and aesthetic qualities. The uptake of wood has been slower in Ireland mainly because we lost our forest resource centuries ago and with it our wood culture. This is now changing as Irish architects, engineers, designers and other specifiers are choosing wood because of its capability to produce a wide range of finishes and structures for small and large-scale projects.

The challenge now is to produce wood in sufficient quantities to satisfy a growing domestic and export market. The current annual production of 3.2 million m³ is estimated to reach 4.5 million m³ by 2025. Demand is likely to continue to outstrip supply as the processing sector continues to utilise all the available timber on the island. Further demands will be made as the economy improves and as the wood energy market grows.

The short-term solution is to increase supply from private forests which are now reaching the production phase following high annual afforestation programmes since the late 1980s.

*Backweston Laboratory Campus, Celbridge, Co Kildare.
Architect: RKD Dublin.*

FOREST RESOURCE

- Annual production from Irish forests is estimated to increase from 3.2 to 4.5 million m³ by 2025.
- Wood Marketing Federation directs much of its wood promotion programme to third level college students of architecture, engineering and design.



The long-term solution is to increase afforestation from the current levels of less than 7,000 ha annually to at least 15,000 ha and higher to achieve 18% forest cover by 2050. This is still less than half the current EU forest cover. There are major benefits in expanding forest cover in Ireland. Irish forests produce yields three times higher than their northern European counterparts so early return on investment is achievable.

Our soils and climate support a wide range of species. These include fast

growing conifers to produce construction, fencing, pallet and fibre material along with broadleaves and minor conifer species that produce wood with higher value end uses including joinery, furniture and veneering. This mix has environmental, landscape and social benefits in tune with sustainable forest management.

Sitka spruce will continue to be the mainstay of Irish forestry followed by Norway spruce and a mix of pine, larch and Douglas fir. There has been a dramatic increase in native species in re-

cent years, mainly the broadleaves oak, ash and alder along with Scots pine our only native conifer with commercial potential.

Forest owners and timber processors need to assess the species required for likely future markets. The disconnect that existed in the past between growers and end users is being bridged. Both sectors also need to optimise the added value potential of species.

In recent years, Irish timber processors have made great strides in adding

value to homegrown timber. The panel board sector continues to develop new products to satisfy the increasing demand of customers for more sophisticated longer lasting weather resistant products. Likewise, sawmills have met demands for higher quality timber. There is room for further research into engineered wood products and composites.

However, growers can also add value. Wood processors require good quality logs to produce quality products. Sawmills in particular need straight,

- Auditorium Wexford Opera House in walnut by Klaus Unger + Ciarán McGahon, OPW, Keith Williams + Richard Browne, Keith Williams Architects.
- The Savill Garden in Windsor Great Park, Surrey by Glen Howells Architects in oak and larch. Presented as a case study at the 2012 Wood Marketing Federation seminar.
- WMF combined with the Royal Institute of Architects of Ireland (RIAI) Southern Region to organise a lecture by Dr. Christoph Dünser, Hermann Kaufmann Architects, Austria on sustainable multi-storey construction in wood.



clean logs with a low knot:timber ratio. These are essential timber qualities especially for high-end construction markets.

Forest owners can add value in the forest by ensuring good silvicultural practices including judicious thinning and pruning of some tree species. There are also major opportunities to produce high quality timber through vegetative production (VP) of Sitka spruce and other species leading to better stem form and quality logs.

Sawmills, growers and nurseries need to co-operate in R&D projects exploring VP and other tree improvement programmes.

The Federation looks beyond Ireland to see how countries with strong wood cultures utilise a wide range of hardwood and softwood species. We invite visiting lecturers to take part in workshops and seminars to discuss species diversity and its implications in wood design and construction. We also look to Irish architects in the private sector and in OPW to learn about the design

possibilities of wood, both home grown and imported, provided it is sourced from sustainably managed forests. Many of the species used in these projects can be grown successfully in Ireland.

We invite all stakeholders to join with us in our wood promotion and education programme. WMF encourages all players in the forestry and forest products sector to collaborate to maximise the social, economic and environmental benefits of wood, our greatest renewable resource.



