

FIG

FIG WORKING WEEK 2017

Helsinki Finland

29 May - 2 June 2017

*Presented at the FIG Working Week 2017,
May 29 - June 2, 2017 in Helsinki, Finland*



Surveying the world of tomorrow -
From digitalisation to augmented reality

Organised by



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

The Power of Partnerships



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

1. Overview

- Power of Partnerships
 - Natural Resources Wales: Rhondda Valley
 - Society for the Environment: A competent profession
- Common lessons



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

2. Natural Resources Wales - 1

- The Welsh Government's Environment Bill gave Natural Resources Wales (NRW) a duty to manage natural resources sustainably in Wales.
- To prepare for this, NRW undertook three exploratory area based trials to explore how to embed an integrated approach to managing natural resources within specific geographical areas.
- Presentation covers one of these trials; Rhondda.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality



Rhondda

New, integrated area based approach to managing natural resources in Wales complementing planning and sustainable development laws to help deliver economic, social and environmental benefits.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

2. Stage 1: Partner engagement

- Worked with a wide range of partners identify key priorities and opportunities.
- Some of the key themes include:
 - Health and wellbeing
 - Nature recovery
 - Access to green spaces and green infrastructure
 - Community resilience and safety (eg flood risk, wildfires, climate change)
 - Prosperity and equality
 - Management of publically owned land



Platinum Sponsors:



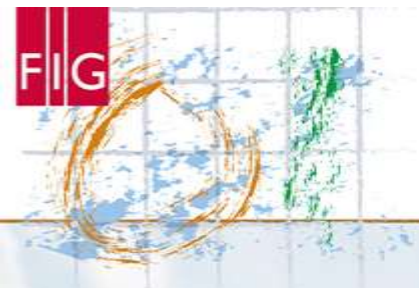


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

From the workshops, seven main themes emerged for the Rhondda:

1. Management of public land and Nature Recovery
2. Collecting what works and sharing the learning
3. Creating 'capable guardians': involving local people
4. Better links to health and outdoor recreation
5. A Restored Hydrology in the Rhondda
6. Improved Access to the Countryside
7. Changing Perceptions of the Rhondda (economic regeneration, tourism)

The published report of the first event (English / Welsh) can be requested from rhondda@cyfoethnaturiolcymru.gov.uk



Platinum Sponsors:



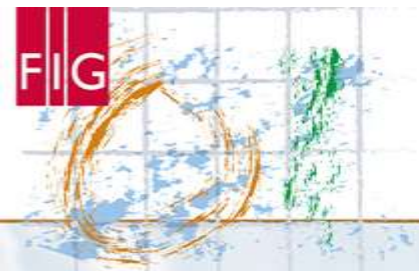


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

2. Projects

- Working with partners to help prevent wildfires caused by arson and enhance biodiversity
- Working with natural processes to help reduce flood risk to Cwmparc and bring benefits to wildlife
- Improvements at Llanwonno woodland for access, environmental education, health and wellbeing benefits
- Training community groups to manage invasive species and enhance their local environment
- Feasibility study recommending ways to enhance the management of public land for pollinators and help address the issue of widespread decline across the UK
- Running outdoor education 'Bio-blitz' events with local communities to record and collect species information and data



Platinum Sponsors:



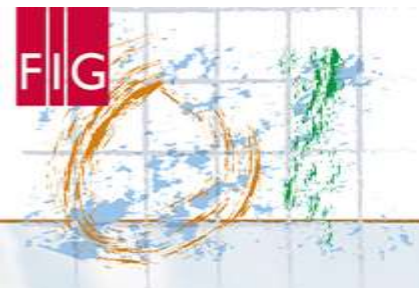


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

Example of Work

- Summary of the project Cwmparc is a typical sub-catchment in the Rhondda.
- In periods of high rainfall the concrete channels rapidly drain the water and this can cause localised flooding and contribute to increased flows in the catchment as a whole.
- By working with nature, the aim of this project was to mimic natural processes to help reduce flood risk, create resilience to climate change, and provide benefits to biodiversity.
- This was achieved by restoring an area of degraded peatland above Cwmparc, and installing in-channel woody debris to the stone lined channels.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality



Historic flooding in the Rhondda



Surface water flows, Cwmparc

There are 5,865 properties in the Rhondda currently at risk of significant flooding. Flood risk in the Rhondda is high and expected to increase in the future.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality



Degraded peatland



Restoring peatland via dams

Restoration of degraded peatland in the uplands above Cwmparc on Welsh Government Woodland Estate (approx. 10Ha site) to increase carbon storage, enhance habitat for wildlife, and reduce flooding by slowing water run-off at its source.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality



Installation of woody debris along stone-lined channels to help slow the travel time for normal and peak flows, contribute to more stable flows through the year, reduce in-channel debris downstream, and improve riverbed habitat for invertebrates, nursery areas for fish (migratory or local populations) and iconic upland species such as the dipper.



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

What we learnt about sustainable management of natural resources

Key learning points

- Nature based solutions can help build resilience and the meet the challenges facing Wales.
- They provide sustainable, cost-effective and multi-purpose solutions, e.g. restoring peatland can help improve water quality, increase carbon storage, store more water (flood attenuation) and enhance biodiversity.
- Quantifying the benefits of nature based solutions is challenging and there are uncertainties in relation to evidence.

<https://naturalresources.wales/media/679662/rhondda-case-study-working-with-natural-processes.pdf>



Platinum Sponsors:





FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

2. Society for the Environment; A Competent Profession

- Collaboration of 24 Professional Bodies
- Building the credibility / recognition of environmental professionals
- Three key aims;
 - Ensuring consistent level of competency demonstrated regardless of the profession
 - Championing environmental professionals
 - Giving environmental professionals a collective voice



Platinum Sponsors:



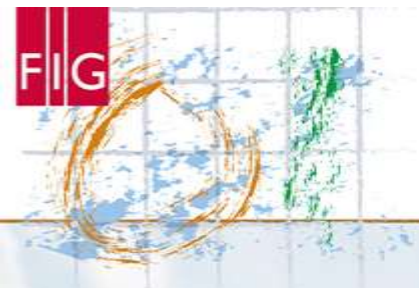


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

2. Benefits of a Common Approach to Standards

- Consistent standard regardless of technical profession
- Commitment to common code of conduct and continued professional development
- Collaboration across different technical disciplines on broad environmental challenges
 - Industrial Strategy
 - Flooding
 - Policy Development
 - Natural Resources Management



Platinum Sponsors:



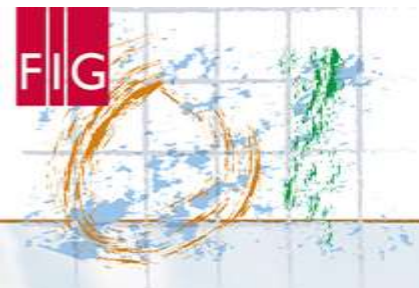


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

3. Common Lessons

- A common vision
- Stakeholder / community engagement
- Consistency in message and action
- Allow time so real benefits come from different technical disciplines working together
- Measure what is important
- Keep learning
- Celebrate success



Platinum Sponsors:



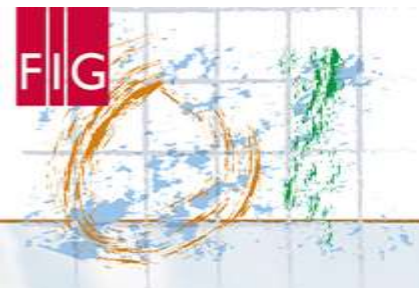


FIG WORKING WEEK 2017

Surveying the world of tomorrow -

Helsinki Finland 29 May - 2 June 2017

From digitalisation to augmented reality

Summary

Natural Resources Wales

www.naturalresources.wales

Society for the Environment

socenv.org.uk



SocEnv
Society for the Environment



Platinum Sponsors:

