

“University of the Year 2015”



“No.1 Modern University in the UK, 2014 & 2015”

THE  TIMES

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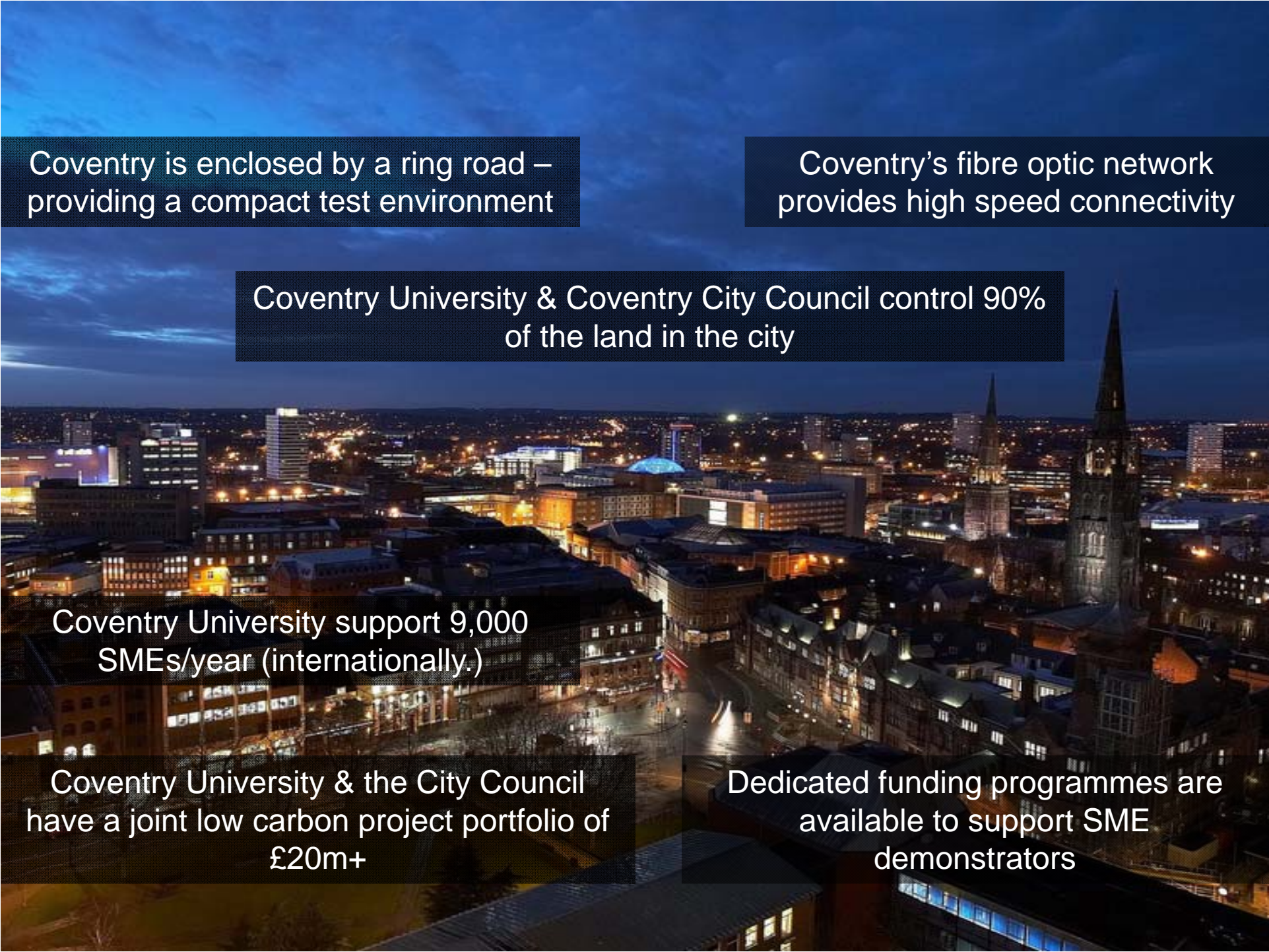


Coventry University Research Overview

February 2016

- **24,000+ students**
 - c20% international
 - *(from 130+ different countries)*
 - 400+ under/postgraduate courses
- **Organisational structure**
 - Faculties & Schools
 - Trading subsidiaries
- **£200m+ campus development**
- **Significant international activity**
 - Joint ventures across the globe



A nighttime aerial photograph of Coventry, UK, showing the city's skyline with various buildings and the prominent spire of Coventry Cathedral. The image is used as a background for a presentation slide, with several text boxes overlaid.

Coventry is enclosed by a ring road –
providing a compact test environment

Coventry's fibre optic network
provides high speed connectivity

Coventry University & Coventry City Council control 90%
of the land in the city

Coventry University support 9,000
SMEs/year (internationally.)

Coventry University & the City Council
have a joint low carbon project portfolio of
£20m+

Dedicated funding programmes are
available to support SME
demonstrators

Core Strengths

Coventry University



Technology
Park

**Skills, KT, IP
Enterprise & Innovation**



Other

**Staff/Student Exchanges
Estates Management**

**“Flexible, Fresh,
Education Provision”**



**INSTITUTE
FOR ADVANCED
MANUFACTURING
AND ENGINEERING**

A UNIPART & COVENTRY UNIVERSITY PARTNERSHIP

**2020 Research Strategy
(£250m Investment)**

**JOIN US ON
OUR JOURNEY...**

University
Estate



2020 Research Strategy

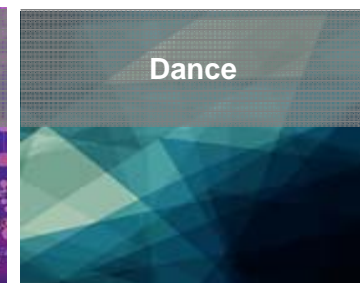
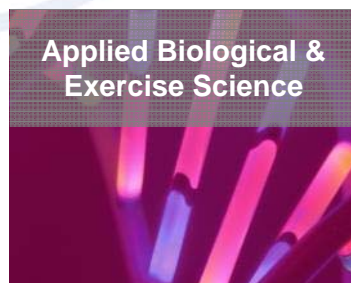
- £250m investment into research staff and facilities
- Focusing on the continuous development of high quality research – targeting ‘**Excellence with Impact**’
 - A natural development of the current focus on “applied” research
- Internationally renowned, “making a significant difference to the way in which we live”

**JOIN US ON
OUR JOURNEY...**

New Science & Health Building

- State of the Art Teaching & Research Facilities
- £64m, 11,250 m²
- Five Stories, including:-
 - Biosciences Super Lab
 - Health Simulation
 - Sports Science
- Opening January 2017

New Research Centres



Transport & Mobility

Research Interests & Capabilities:-

- Vehicle Design & Styling, Dynamics & Safety
- Vehicle Electrification
- Ergonomics & User-Centred Design
- Human Factors & Human Systems Integration
- Structural Optimisation & Lightweighting
- Wireless Sensing
- Autonomous Systems, Connectivity & Cyber Security



Transport Behaviours (EU)

€1.3m FP7 Project

- **Analysis of social behaviour**, mobility patterns and business models, **to integrate and optimise transport systems**



€2.3m FP7 Project

- Development of a tool to **measure the intermodal passenger experience**, and increase the uptake of public transport





“Studying the benefits of transport provision in Medellín, Columbia”

The impact of the Metrocable on **health, employment, education, business growth (around stations), housing redevelopment and improved community cohesion**

The development of a ‘**Metroculture**’ where people take pride in the

Manufacturing & Materials

Research Interests & Capabilities:-

- Process Control & Product Verification.
- Advanced Metrology & Experimentation
- Supply Chain Management
- Materials for Advanced Technologies
- Integrated Product Enhancement





GKN PLC

**“Global Engineering Group
– Aerospace, Automotive,
Manufacturing”**

Supporting the development of
the latest GKN Gyrodrive - a
Kinetic Energy Recovery
System (KERS)

£2m Innovate UK
Collaborative Research
Programme

Materials, manufacturing &
metrology academic expertise

Low Impact Buildings

Research Interests & Capabilities:-

- Dynamic performance of buildings
- Occupant and owner responses
- Impacts of uncertainty
- Whole-life decision-making
- Smart civic structures
- Smarter Households
- Bamboo Strength/Classification Studies
- Concrete, Soil Analysis and Geotechnical Investigation



Low Carbon Impact (EU)

€2.3m FP7 Project

- Led by Manchester Living Lab (UK), to develop & **install energy management systems** in 100+ properties **and improve domestic energy efficiency**



€8.8m FP7 Project

- Bringing together **design and decision making tools**, **innovative building fabrics** and a programme to **demonstrate improved building performance through retrofitting**



Flow Measurement & Fluid Mechanics

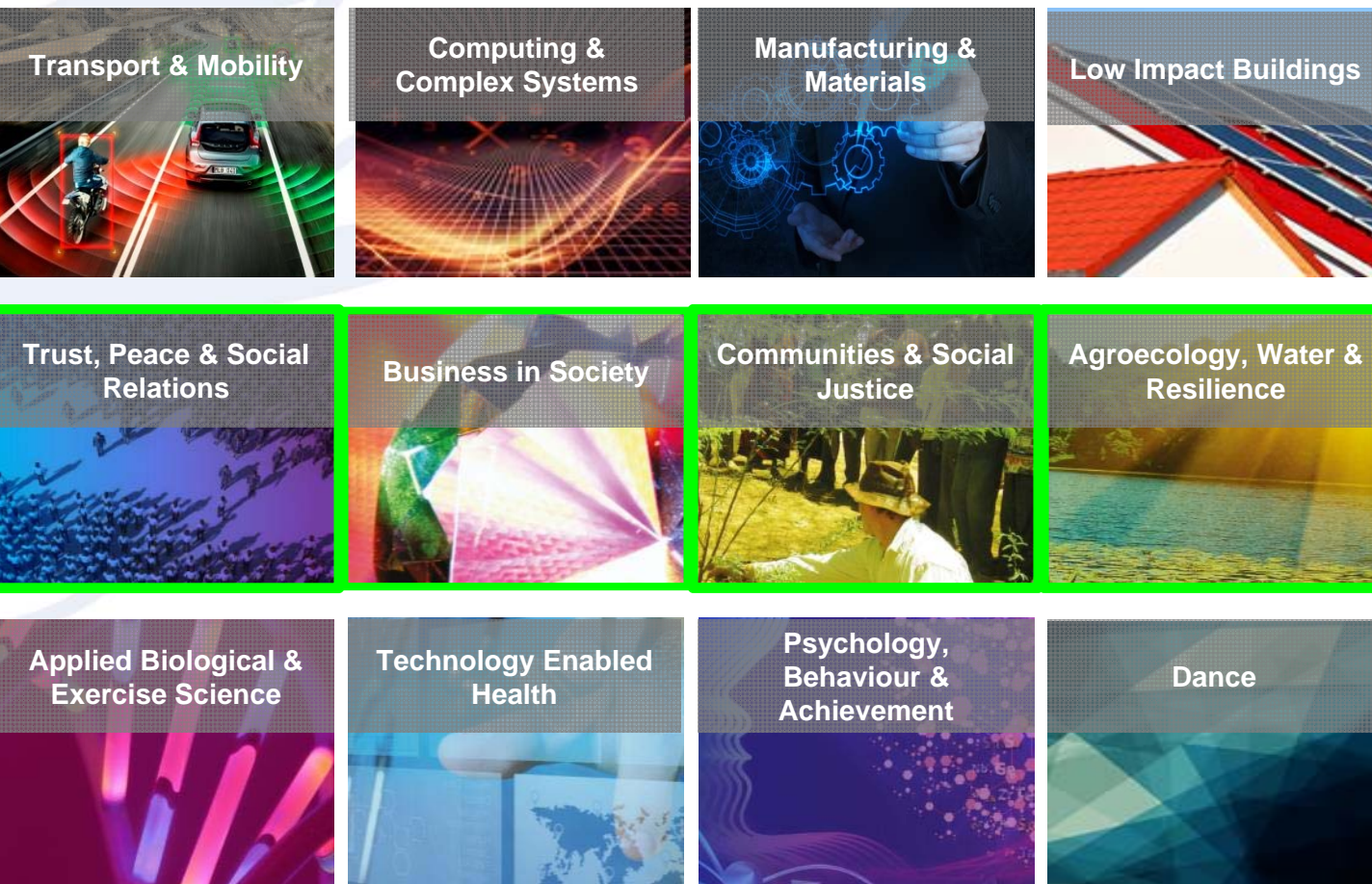
FMFM brings together Coventry University and [TUV-NEL](#) (NEL, the former National Engineering Laboratory), as well as partner Universities

new approaches to flow instrumentation and modelling as well as developing better understanding of the fundamentals of flow of gases and liquids used in a wide range of sectors, including oil and gas, aerospace, food, process industries, water, nuclear, and automotive

- Novel Measurement Techniques for Complex Flows
- Flow Measurement Uncertainty and Diagnostics
- Regimes in Multi-Component Flows



New Research Centres



Agroecology, Water & Resilience

Research Interests & Capabilities:-

- **Models of resilient food and water systems**
- Understanding **fundamental processes of resilience and instability** in environmental and social systems
- **Community self-organisation** for resilience
- **Enabling policies** for resilient food and water systems

Trust, Peace & Social Relations

Research Interests & Capabilities:-

- Working with:-
 - **Conflict affected communities**
 - **Disparate, diverse, and disconnected communities**
- **Enabling trust building and restoration within communities and organisations** to create more effective and resilient individuals, and better performing, more sustainable organisations

Communities & Social Justice

Research Interests & Capabilities:-

– Identity

- Gender, race, social class, age, disability, sexuality and belief

– Inequality

- Human rights, access to health, education and employment

– Community/Locality

- The impact of locality on individuals' quality of life and life chances

– Lifecourse

- Shaping, supporting and reviewing policy
- (e.g. ageing, disability, financial security and youth unemployment)



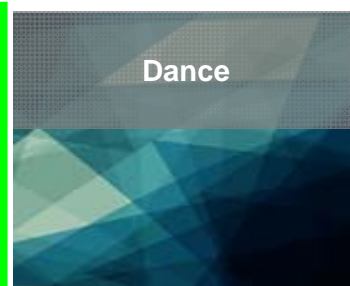
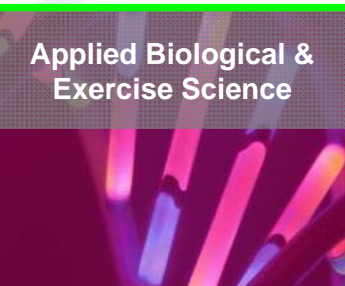
Business in Society

Research Interests & Capabilities:-

- **Policy, industries and economic growth**
- The role of national and international public policy in achieving **sustainable economies and ethical business practices.**
- A particular focus on SME's and sectors such as **automotive, transport, food and finance** within both urban and rural contexts.
- **Transformational business models**, alternative models of growth and their social and environmental outcomes.
Communities, consumers and responsible business



New Research Centres



Applied Biological and Exercise Sciences

Research Interests & Capabilities:-

- **Cellular and Molecular Biosciences.** We characterise and manipulate key cellular and molecular systems which underlie normal and pathological cell function.
- **Biological Systems, Health and Disease.** We undertake research which has the potential to profoundly alter approaches to disease prevention, diagnosis, and treatment;
- **Physical Activity, Exercise and Obesity.** We research the factors that influence physical activity, exercise and obesity, in children and older adults, to improve function, health and wellbeing. This work develops and delivers interventions that is intended to increase longevity and reduce ill health.



Technology Enabled Health Research

Research Interests & Capabilities:-

- Behaviour and Interventions Research**
- Children and Families Research**
- Health Economics Modelling and Systems Analysis**
- Innovation, Design and Technology**
- Cross cutting theme: Cancer**

Psychology, Behaviour and Achievement

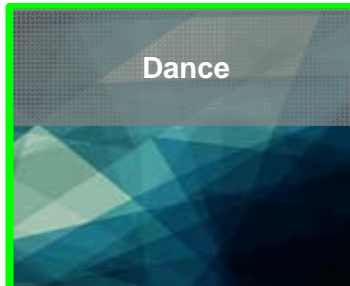
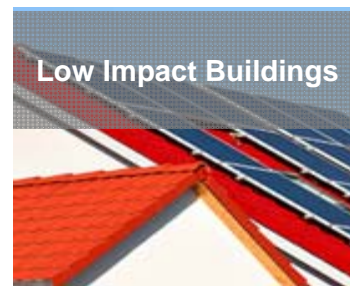
We focus on the development and evaluation of theoretically-rooted, evidence-based psychological interventions across a range of areas: children's literacy and developmental disorders, violence and interpersonal aggression, identity and resilience in communities and organisations, cognition, neuropsychology and psychopharmacology.

Research Interests & Capabilities:-

- **Atypical Development**
- **Violence and Interpersonal Aggression**
- **Literacy Development**
- **Identity and Resilience in Communities and Organisations**
- **Brain, Belief and Behaviour**



New Research Centres



Dance Research

The centre specialises in an inclusive approach to diverse forms of artistic research in dance, supported by new approaches to documentation, analysis and augmentation of choreographic creativity. Interested in dialogues across live and digital dance, and the embodied knowledge of the dance artist, research at C-DaRE is situated within a range of interrelated fields.

Research Interests & Capabilities:-

- **reflexive enquiry into forms of somatic practice;**
- **research into digital archiving and publication of live performance with a focus on dance;**
- **the development of alternative sites for performance including screen and site-responsive dance.**



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Thank you

[CU Research website](#)

