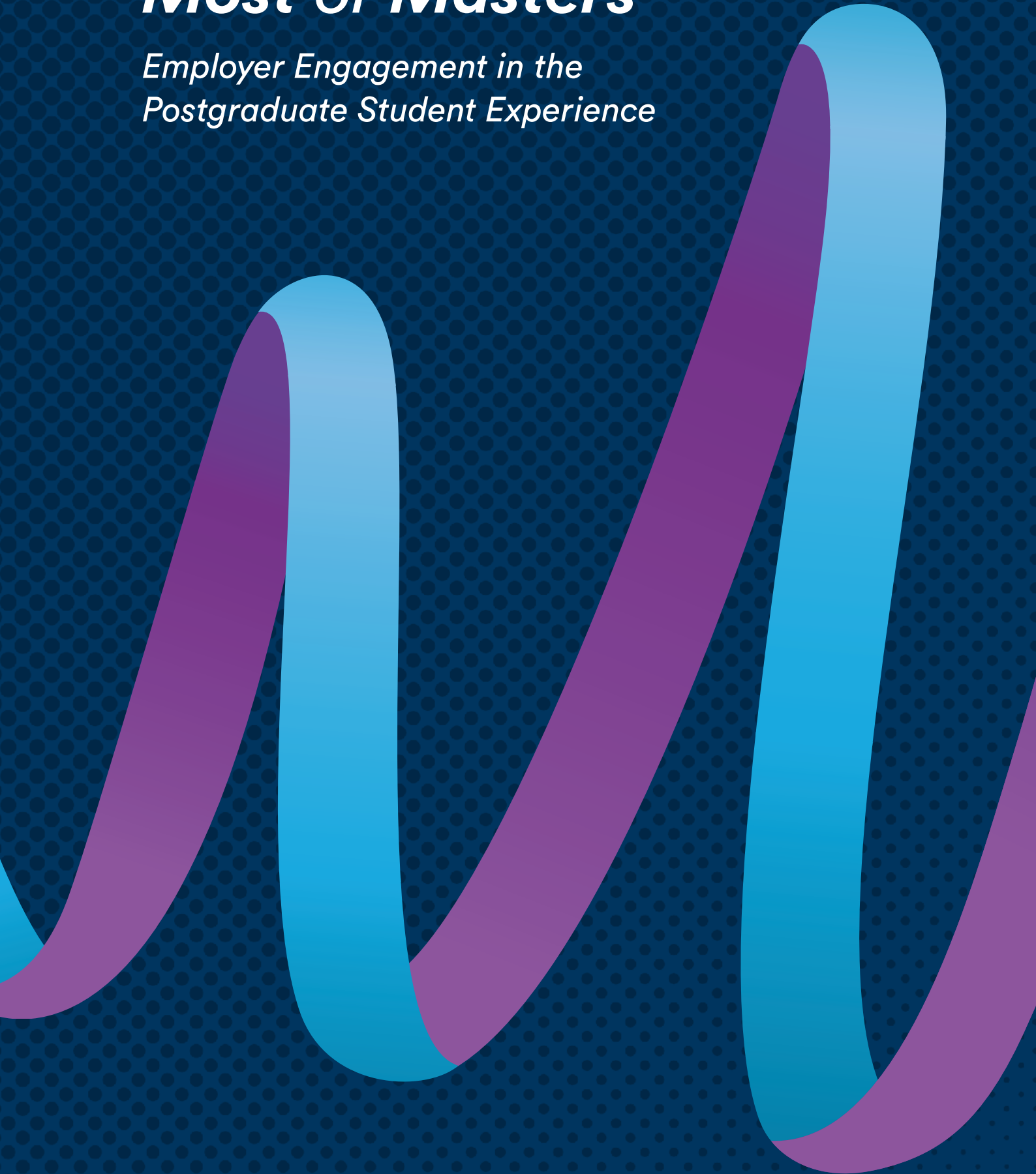
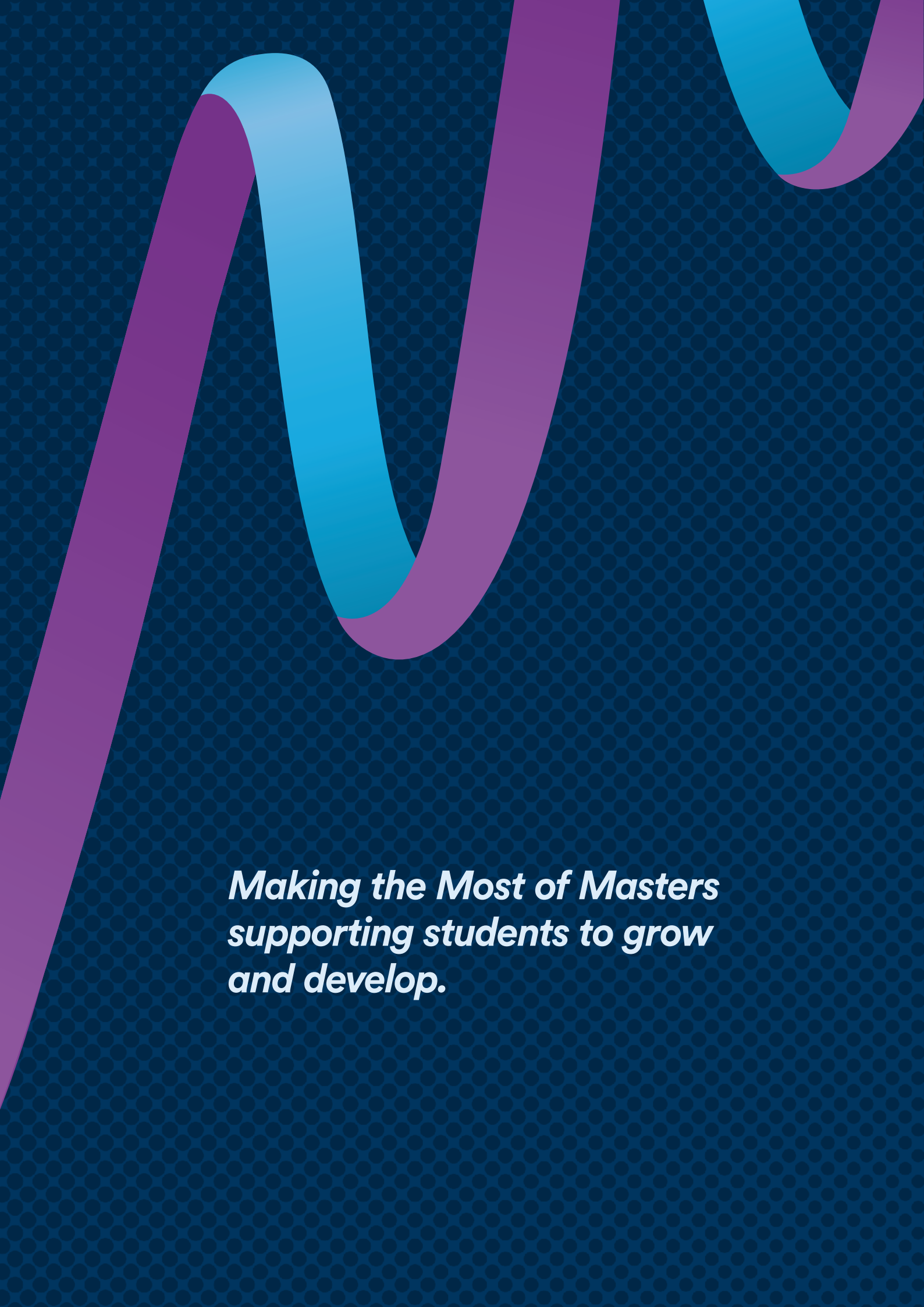


Making the Most of Masters

*Employer Engagement in the
Postgraduate Student Experience*





***Making the Most of Masters
supporting students to grow
and develop.***



Welcome

Making the Most of Most of Masters (MMM) began in 2011 as a pilot programme designed to test and embed the use of external Work Based Projects (WBPs) as an alternative to the traditional academic Masters dissertation. Such has been the success and impact of MMM that it is now firmly embedded within the three original partner Universities and expanded across Scotland to a total of eleven strategic partners across Scotland (9 universities, Highlands and Islands Enterprise and the Scottish Funding Council) promoting further innovation in advanced graduate work-based learning.

Key objectives of the MMM project are to:

- Embed the MMM approach as a key element of Scottish Masters provision and University business engagement.
- Further leadership of best practice in accordance with UK QAA Guidelines in credit-bearing Work Based Projects.
- Share creative and strategic approaches to employer engagement and associated curriculum innovation; this includes provision of networking events and education resources, links to business networks, and employer and professional organisations.

The challenges of bringing business, masters programmes and students together are considerable. These have been met by adopting approaches that suit the very specific and varied needs of our stakeholders to deliver masters level dissertations in partnership with employers. Success is evidenced through the completion of more than 1450 WBPs across the partnership by academic year 2015/2016.

A comprehensive MMM Toolkit of our research and education resources has been developed that is free to use and available from the Making the Most of Masters website, www.makingthemostofmasters.ac.uk.

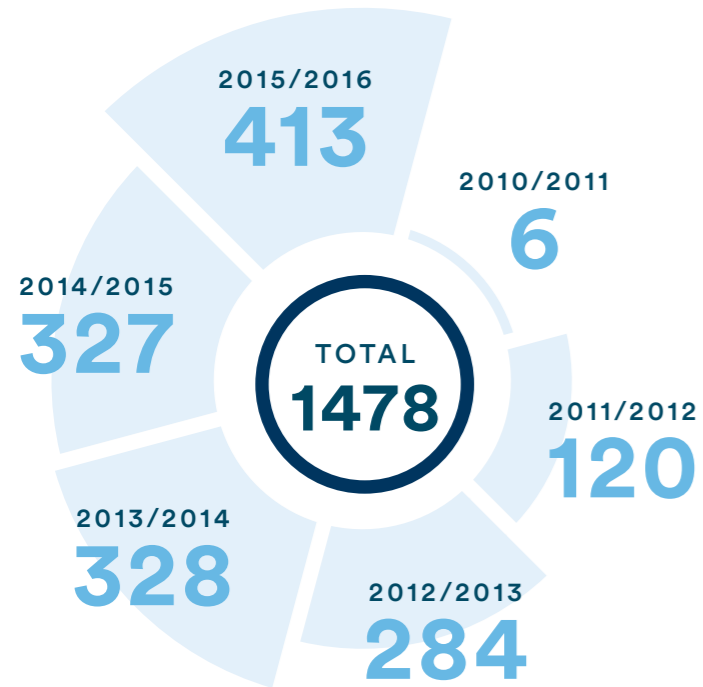
The projects team continue to develop a deep understanding of the challenges and benefits of offering WBPs in a range of different Masters programmes, involving many different employers and economic sectors. This publication highlights some of the many success stories that MMM has generated through employer engagement as part of the postgraduate student experience in this SFC funded programme.

Rosemary Allford, MMM Project Manager

Key Facts

WE CREATE OPPORTUNITIES

Expansion of work based projects 2010 - 2016



ELEVEN PARTNER ORGANISATIONS ARE INVOLVED

Abertay University
 University of Strathclyde
 University of Stirling
 University of Aberdeen
 Edinburgh Napier University
 University of Edinburgh
 University of the Highlands and Islands
 University of Dundee
 University West of Scotland
 Highlands and Islands Enterprise
 Scottish Funding Council



AWARD WINNING!

Making the Most of Masters won the 2013 Times Higher Award for Outstanding Employer Engagement Initiative



PROGRAMME TIMETABLE

JANUARY 2011 - JULY 2015

IDENTIFY

Identify Masters projects and businesses for dissemination to new partners



MMM TOOLKIT DEVELOPMENT

DEVELOP

Develop further curriculum innovation and employer engagement activities



ACADEMIC YEAR 2015 - 2016

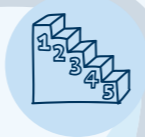


NEW PARTNERSHIPS

Small scale trial of MMM work based projects within new partners

BUILD

Build on legacy of embedded MMM work based projects with existing partners



ACADEMIC YEAR 2016 - 2017

EXPANSION

Expansion in MMM partners and existing and new projects



DEVELOP

Develop plans for embedding within new MMM partners

NEW WEBSITE

Launch of the new website
www.makingthemostofmasters.ac.uk



Foreword



DR JON TURNER
 CHAIR, MMM BOARD

Making the Most of Masters – benefits for all

Making the Most of Masters is a simple concept. Students undertake a Work Based Project as an alternative to the traditional academic dissertation. When we developed the MMM project we were confident of the potential benefits of the approach – for students, universities and employers. We were also aware of some of the challenges bound up in this simple idea.

We ask a lot from employers. MMM is different to most placement schemes, Work Based Projects need to be carefully designed and implemented so that students can demonstrate their Masters level achievement and learning. We ask students to leave their comfort zone and work in new and unfamiliar environments for the most important element of their Masters study. We ask Universities to expand the range of dissertation projects offered, resulting in extra organisational, assessment and Quality Assurance demands.

This effort has been rewarded. Students have taken the opportunity to grow and demonstrate their learning and skills in real world settings. Universities and masters programmes have embraced the model. Employers have benefited from the work of our students. Relationships between universities and a wide range of external organisations have been strengthened.

As MMM continues these benefits look set to grow.



PROF IAN SIMPSON
 ACADEMIC LEAD, MMM

Making the Most of Masters futures – the research skilled workforce

With increasing requests from our employer networks for extended research-focused work-based learning, new approaches are needed to bridge the gaps between the University research base, enterprise and a research skilled workforce.

We want to support development of skilled postgraduates who lead in research activity and contribute directly to research and enterprise in Scotland's economy. We want to provide highly skilled work-ready postgraduates able to engage with greater innovation in SMEs and start-up activity in industry and business. Extending the successful Making the Most of Masters programme into the Masters of Research arena can address these demands.

The work-based MRes is envisioned as high quality learning that leads to new and innovative industrial-driven research opportunities across Scotland. This can only happen with exceptional university – industry partnerships, partnerships that have been the foundation of our MMM success and that are now prepared to take a new and innovative step in Masters provision in Scotland.



Assessing Human Rights Impacts in the Food Industry

Through Bastian's positive consultative approach we have gained a more insightful knowledge of ourselves...

Highlands and Islands Enterprise (HIE), the Scottish Government's economic and community development agency for the Highlands and the Islands, facilitated the placement with a fish-processing company in the North of Scotland. The company experienced significant growth during the last few years and was seeking feedback on its human rights compliance and potential avenues for future Corporate Social Responsibility (CSR) activities.

The company facilitated interviews with workers of the processing units as well as middle and senior management. In addition, the student gained insight in current human resource and supply chain management challenges and processes.

The placement enabled Bastian to form the basis of his Master's dissertation project on the human rights compliance of Scottish companies and how it can be improved. Bastian undertook a study on how human rights are embedded in food supply chain management processes, especially through social auditing.

MMM EMPLOYER EXPERIENCE

"We engaged with Bastian to allow the business to gain a greater and wider understanding of corporate social responsibility. As a business we have a collaborative approach to working in partnership with our customer and suppliers, however we were seeking to gain some feedback and recommendations on the wider context of corporate social responsibility in terms of human right principles outwith the UK.

Through Bastian's positive consultative approach we have gained a more insightful knowledge of ourselves as well as a greater understanding of the wider context of corporate social responsibility."

PROGRAMME DIRECTOR

DR IOANA CISMAS, LECTURER IN LAW & DIRECTOR OF THE LL.M CORPORATE SOCIAL RESPONSIBILITY, UNIVERSITY OF STIRLING

"The MMM programme offers a framework for graduate students to test theories and apply concepts acquired in classroom contexts to real-case scenarios. Students are encouraged to work independently, while being provided with unique access to employers' networks, and academic guidance. MMM is a perfect illustration of the benefits of active learning: students strengthen their knowledge, acquire new skills, and increase their employability prospects. This particular project has been a great success thanks to the student's exceptional analytical skills, dedication to his research and passion for the topic, the employers interest in and commitment to the programme, and outstanding support throughout, as well as the academic and administrative assistance provided by the University of Stirling. As a result, Bastian has developed new research in the under-studied area of small businesses and human rights—his dissertation, and the other activities undertaken alongside it, have the potential to achieve a real impact outside academia."

STUDENT FEEDBACK

BASTIAN ROOS - LL.M IN CORPORATE SOCIAL RESPONSIBILITY, UNIVERSITY OF STIRLING

"It was very insightful to see how companies manage human rights in their daily operations and supply chains after so much theoretical input through the modules and lectures of my master programme. The opportunity to witness the attempts of a company to establish additional processes to tackle their human rights was a privilege and I am thankful for this unique opportunity. In addition, I had first-hand experience of observing the need for effective communication so that the language of academia and business can work together to progress this important area. Indeed, I feel that this work related project will help me in the articulation of my skills as I progress my future career."

Developing Software Security Industry Tools

“Graphic Visualisation of the weakest link attack surfaces of a given online individual or enterprise ecosystem”

The aim of the project was to produce a tool that provides an interface for end-users to calculate their digital footprint and produce a graph that visually dictates the paths of least resistance within their user network that would be used for maximum exploitation in the case of a worst case scenario exposure. The student was given full reign over the direction of the project while the project supervisor at Abertay advised on the scope of the project and offered assistance with academic matters. The company, Cigital, were also available to offer both general and sometimes more specific advice regarding technological or mathematical matters.

PROJECT SUPERVISOR

DR NATALIE COULL - SCHOOL OF ARTS, MEDIA & COMPUTER GAMES, ABERTAY UNIVERSITY

“I really enjoy supervising students who are working on industry based projects. It’s great to see the students growing in confidence as they realise through the project how the skills they’ve learned at university can be relevant in an industrial context, and get an insight into the issues that companies are trying to tackle in the field of ethical hacking. From my own perspective, it’s also invaluable to work (albeit virtually) along side a company to supervise a student and gain a better understanding of the company profile and their goals. I can use this to inform my own teaching and research.”

I really enjoy supervising students who are working on industry based projects.

STUDENT FEEDBACK

SAMANTHA BEAUMONT - ABERTAY UNIVERSITY

“Having a sponsor who suggested a topic of real relevance to current industry is extremely beneficial to me as a student just entering this field, as I have more of a realistic perspective regarding research topics and responsibilities demanded from an individual entering an unknown space within the community.”

EMPLOYER INFORMATION

CIGITAL - CYBER SECURITY COMPANY

“Cigital takes a holistic approach to designing, building and maintaining secure software—a concept we call ‘Building Security In.’ To accomplish this, Cigital offers a comprehensive portfolio of solutions delivered through managed services, professional services, and products. These solutions range from end-to-end application security programs to threat modeling to training.

We believe that finding bugs is only a part of the application security process. We place the emphasis where it belongs: collaborating with our clients to fix their vulnerabilities and prevent security issues before they occur. Cigital has the people, processes, policies and tools to make any security journey a success”

 **Cigital**
BUILDING SECURITY IN

 **Abertay University.**





Investigating the Effect of Recent Peatland Restoration on Water Quality

Flanders Moss National Nature Reserve (NNR) is one of the largest and least damaged lowland raised bogs in the UK.

Over the last 20 years there has been large scale restoration works carried out to restore the peatland habitat by returning the water table to the bog surface. Increasingly Scottish Natural Heritage (SNH), the managers of the NNR are viewing Flanders not just as a designated site but as an important feature in the landscape. The restoration of the moss can bring benefits to the local area in mitigating climate change by locking up carbon and providing natural flood management through releasing rainfall slowly.

Measuring the quantity and quality of the outflow of water off the moss is therefore of great importance. A monitoring system is being set up to monitor water levels within the peat body and amounts flowing off the site, but little information was available on the quality of this outflow of water.

It was very rewarding to have such a valuable experience...

PROJECT SUPERVISOR

PROFESSOR MIKE BILLET - UNIVERSITY OF STIRLING

“The Flanders Moss peatland is on the doorstep of the University and has the potential to act as an easily accessible site for both teaching and research. The knowledge-base and support provided by SNH is essential to make this happen. Peatland restoration is one of the tools which is being used to meet climate change targets, both at a national and international level. Having a local research site and working in partnership with a key stakeholder, like SNH, provides an excellent research platform to train current and future practitioners and researchers.

The MMM Programme helped initiate the employer collaboration and provides the opportunity for students to develop new skills and then apply them to the most challenging environmental issue of our time.”

STUDENT FEEDBACK

DERWYN LEAR - MSc ENVIRONMENTAL MANAGEMENT

“Whilst completing my MSc in Environmental Management, I worked with SNH on a dissertation project investigating the water driven losses of carbon from a part-degraded and restored lowland raised peat bog. This unique opportunity provided me with work experience and contacts within SNH and the wider research community. The research has been highly beneficial in furthering my understanding of the hydrological and biogeochemical processes associated with peatland systems. Most importantly working with SNH on a nature reserve that has been at the forefront of peatland restoration, and gaining an intimate knowledge of the restoration practices that have been adopted, has provided me with invaluable knowledge that I have since put to use in the restoration of peatlands within the commercial sector.”

EMPLOYER EXPERIENCE

DAVID PICKETT - SCOTTISH NATURAL HERITAGE, STIRLINGS NNR RESERVE MANAGER

“Making the Most of Masters provided us with the opportunity to work with near-by University of Stirling and their research knowledge in this area. This student project allowed us to establish a baseline of water quality measurements that could be revisited in future years and an indication of the effect of the restoration works carried out on water flowing off the moss. Working with Derwyn went very well. Time spent providing background information and an initial induction day on the moss was well spent. Derwyn was then able to collect samples through the summer. SNH offered Derwyn opportunities for work shadowing of SNH staff which provided insight of the organisation and the business sector.”



The Challenge of Partnership Working at Home and Abroad

Work-based projects in 2015/16

Chritiana Ekezie with Public Health, NHS Grampian

investigated the prevalence of depression in people living with HIV/AIDS in Sub-Saharan Africa. She developed a protocol to carry out a systematic review and had it accepted by the International Prospective Register of Systematic Review. She then went on to carry out the Systematic Review for her Master's Project.

Sharon Mokuia with Aberdeenshire Council

in Peterhead carried out a literature search to find a method to empower "hard to reach" groups in rural Aberdeenshire, to help the Council engage with their young people, adults with disabilities and immigrants working in the area.

Chloe Brooks worked with Naretu Girls and Women Empowerment Programme in Kenya

to find out about the issues involved with female genital cutting and then assessed the action being taken by Councils in Scotland, to protect girls living in Scotland from harmful, cultural practices.

Deena Tissera with the Politics of Health Group

used case studies from well known health-related campaign groups and charities to investigate the most effective means of using Social Media to capture a global audience.

BACKGROUND

The MSc Global Health and Management programme has developed an innovative, curriculum based opportunity to allow students to develop work relevant skills and experience in the Global Health context. Across semesters 1 and 2, students have access to two modules:

Semester 1, Mandatory 0-credit 'Introduction to Global Health'

- Introduction to global health and global citizenship through social media and digital technology
- Developing their online identity and career planning

Semester 2, Elective 15-credit 'Work-based projects'

- Competitive application process by CV and cover letter
- Placement carried out with an external organisation— on site or in Aberdeen. The placement is student directed under the guidance of a supervisor from the University and the organisation

**Assessment: Reflective Diary (30%),
Placement Output (70%)**

EMPLOYER EXPERIENCE

PUBLIC HEALTH, NHS GRAMPIAN.

Organisations are positive about the placements and want to stay involved :- Naretu Girls and Women Empowerment Programme, Kenya and Wits Rural Public Health and Health Transitions Research Unit, South Africa have taken a student every year since the course started.

"The work-based projects provided the student the opportunity to gain practical experience and skills associated with research and employability, whilst contributing to our work."

STUDENT FEEDBACK

With a competitive application process, students can be matched to specific organisations.

"Having career goals in health politics, I was incredibly excited to undertake my placement with the Politics of Health Group and gained an understanding of the power of social media"

Skills gained:

"people skills as I liaised with people in South Africa and Aberdeen"

"understanding the challenges of forming partnerships between organisations based in different countries"

"time management— juggling work on the placement while attending other courses"

LESSONS LEARNED

- Mutual benefit obtained if care is taken to understand and balance the students' and organisations' needs and expectations
- Flexibility is required to account for diverse organisations
- Placement output is agreed by the organisation and University to suit the task the student will undertake eg Developing a web site; Writing a project protocol; Data analyses and reporting
- Financial support to allow students to spend time with the external organisation appears to confer maximum benefits
- Often, placements lead on to student projects, allowing students to extend networks within the organisation and to carry out projects they have developed and feel ownership of





Collaborations Across Scotland's Industrial Biotechnology Sector

Having an MSc student is also a way to increase interdisciplinarity in our team...

The IBioIC Collaborative MSc in Industrial Biotechnology is a unique course which is administered and awarded by the University of Strathclyde and taught over eight HEIs throughout Scotland with valued input from our industrial partners. The 10-12 week industrial project placement is a collaborative activity between the Industrial Biotechnology Innovation Centre (IBioIC) and its industry members, with members being afforded the opportunity to host one or more MSc projects annually.

Xanthella are a core member of IBioIC and are participants in a number of research projects and PhD studentships along with academic partners from St Andrews and Robert Gordon University. This research project was the second MSc project hosted by Xanthella in recent years and the student was based at the company site in Oban throughout the placement.

The project aimed to investigate the effect of narrow spectrum light on cultures of microalgae and Cyanobacteria. Key objectives included the investigation of both HINS light and blue light LEDs exposure and Cyanobacteria inactivation and approaches to ensure a cost-effective application of HINS light in large scale micro-algae cultivation.



EMPLOYER EXPERIENCE

DOUGLAS MCKENZIE - XANTHELLA LTD

"The opportunity to have MSc students working alongside Xanthella's team has been a very fruitful experience to our company. Being a small-sized enterprise involved in a number of different projects, the contribution of students of such level allows us to reach targets that otherwise would take longer or additional efforts to accomplish. To offer industrial placements of this kind is also a good way to increase our collaborations with other institutions which potentially can result in new research projects and contribute to the further development of our products.

Having an MSc student is also a way to increase interdisciplinarity in our team and that may result in new ideas and improvement of our processes and procedures. We have had two IBioIC MSc students so far and both of them have become involved in our activities after their placements, one as a PhD researcher as part of a collaboration with Robert Gordon University in Aberdeen, and the other one as our employee. Barbara, now Xanthella's Algal Technologist. She has been a very motivated and enthusiastic student who performed research and development work of very good quality. The results from her MSc project are going to be included in a patent and published in a scientific journal."

SKILLS MANAGER

DR SUSANNE BOYLE - IBioIC

"The industry based project provides our students with the opportunity to undertake research on a project offered by one of the Industrial Biotechnology Innovation Centre's (IBioIC's) industrial partners. Project allocation is by open competition and includes shortlisting and interviews with industrial hosts. The laboratory based industrial placement also exposes students to the wider activities of the business thereby supporting the development of a wide range of transferable skills and potentially enhancing their employability."

STUDENT FEEDBACK

BÁRBARA GUIMARÃES - MSc INDUSTRIAL BIOTECHNOLOGY STUDENT, UNIVERSITY OF STRATHCLYDE

"I was attracted to the MSc Industrial Biotechnology degree course since it provided an opportunity to get more involved in Biotechnology and associated projects that have more applicability in the industry. I thoroughly enjoyed this unique and challenging course and the opportunity to attend courses at different universities across Scotland meant that we were tapping into the strengths of each university, developing a national network and experiencing the culture and ethos of different institutions.

During my project my industrial supervisor, Ana dos Santos Vejrazka, gave me a lot of freedom to design my experiments and stimulated my creativity and problem solving skills. I was able to attend meetings with the scientific advisors of the project I was involved in which gave me a much better understanding of the impact of my work and improved my confidence. This MSc course has enhanced my career prospects since I was offered and accepted a post at Xanthella as an Algal Technologist and started the role immediately after my placement."





Improving Digital Banking Services in North Africa

This project assisted a British multinational banking and financial services company with many business interests in emerging markets. The company was looking to improve its digital banking services in several countries in northern Africa to increase usage of the service. By using digital banking, clients can access banking services at home/work (ease of access), while reducing pressure on the banks local branches (saving cost and improving customer service).

The project involved:

- Selecting an African country to research its digital banking usage.
- Identifying the reasons that prevent businesses and individuals using digital banking.
- Providing country specific recommendations to increase digital banking usage for Standard Chartered customers.

STUDENT FEEDBACK

XINGYUE WANG, MSC INTERNATIONAL BUSINESS AND EMERGING MARKETS, THE UNIVERSITY OF EDINBURGH

“Coming from China, one of the biggest emerging markets in the world, I’ve always been interested in how emerging markets develop. This business project allowed me to increase my knowledge of the business environment in North Africa, especially Nigeria, which was the focus of this study.

During the project, I learned the processes of doing market research for a business, including gaining experience in cold calling individual businesses in Nigeria. Our client was very satisfied with the outcomes of the project and I feel that the report we delivered has made a significant impact on the company’s strategy in the country.

The weekly meetings with our client, giving updates on our progress was one of the most valuable experiences for me, something that couldn’t be gained through other courses. Completing this project has given me greater confidence when dealing with business clients in my work place.”

Coming from China, one of the biggest emerging markets in the world, I’ve always been interested in how emerging markets develop.



Developing work based projects with Dundee’s Art Gallery and Museum

The Programme Director of the Master of Fine Art: Art, Society & Publics, Professor Tracy Mackenna, School of Art & Design, has developed a Making the Most of Masters student placement opportunity at the McManus, Dundee’s Art Gallery and Museum, based on the project, “The People’s Story”. This project is part of a year long programme of activities and events in 2017 to celebrate the 150th Anniversary of the McManus Art Gallery and Museum. This placement was developed jointly with Christine Millar, Section Leader, Learning and Engagement, Leisure & Culture Dundee. Christine Millar met the Masters students at their programme induction event in September 2016 and, following the circulation of the project brief, students were interviewed for the placement opportunity in November 2016. The placement will take place in 2017. The results of the placement will be made public during the School of Art and Design’s Masters show event in August 2017 and will be featured on that event’s website. The process of organising this placement and its outcome will also form the basis of an institutional staff development event in 2017 organised by the University’s Centre for the enhancement of Academic Skills, Teaching, Learning & Employability (CASTLE).





Investigating Training Approaches for Low Literate Populations

Elizabeth McLeod worked with The Soapbox Collaborative during her Placement. The Soapbox Collaborative is an Aberdeen based charity which promotes clean safe care at birth in low and middle income countries, to reduce maternal and newborn deaths.

In their focus countries, Soapbox had found that cleaners receive no formal training in hygiene and infection prevention & control (IPC).

During the Placement...

Elizabeth carried out a systematic review to find evidence on training approaches used with low literate populations and in low income settings which could be used to inform the development of essential training in hygiene and IPC for staff with low literacy levels in poorly resourced settings.

I learned to ask for help when needed—and got support from my supervisors...

What is a work-based placement?

A task planned by an organisation that can be completed by the student in the time available, with academic rigour. Students apply for 3 placements in a competitive process, based on CV and cover letter. Students complete the placement one day per week, over 10 weeks, at the organisation or in Aberdeen. The output is flexible (agreed by the organisation and the University) so that the organisation gets a useful resource from the placement eg web site, protocol, literature review or findings from data analyses. Students gain real life work experience and develop networks that improve their employability.

EMPLOYER EXPERIENCE

THE SOAPBOX COLLABORATIVE

“Soapbox was extremely fortunate to have an excellent student who was able to undertake a piece of work that we didn’t have capacity to complete ourselves.

We had initial reservations about the time required to support Liz, but she used her own initiative and worked well independently.

Problems arose from the lack of information on the topic and this was where the complementary roles of the Soapbox and University supervisors came in to play and regular communication between Liz and both of her supervisors was of great benefit.

Ultimately, Liz’s placement led her to do her project with us, the results of which will form the basis of a significant piece of work for Soapbox. The mutual benefits of having students of this calibre join our organisation are great and we would certainly consider a placement again in the future.”

STUDENT FEEDBACK

ELIZABETH MCLEOD - MSc GLOBAL HEALTH AND MANAGEMENT, UNIVERSITY OF ABERDEEN

“My work based placement with The Soapbox Collaborative was a tremendous experience for growth and personal development.

I learned to ask for help when needed—and got support from my supervisors at The Soapbox Collaborative and the University.

I learned that in research, you have to be flexible as it may not be possible to answer the original research question.

The skill set I gained from the Work Based Placement was invaluable when it came to carrying out my MSc Project, from which I was awarded the Prize for the Best Thesis.”

The mutual benefits of having students of this calibre join our organisation are great...



Investigating Innovative Forensic Science Techniques through Industry Focused Research

This 13 week work based project was based at LGC Forensics in Culham. The project title was “Examining the Performance and Robustness of the ParaDNA® Screening and Intelligence Assay Systems”

This project involved assessing the impact of common forensic presumptive tests on the ability to obtain results using novel ParaDNA systems.

The results demonstrated:

- Forensic fingerprint enhancement tests and body fluid presumptive tests show little impact on a novel rapid DNA technology.
- Direct PCR shows robust amplification of forensic samples.

This is an ideal preparation for the time after their studies...

PROGRAMME COORDINATOR

LYNSEY SHAW - CENTRE FOR FORENSIC SCIENCE,
UNIVERSITY OF STRATHCLYDE

“Work based MSc projects give our students an opportunity to work in the forensic science industry, applying their newly acquired knowledge to a current and relevant piece of forensic research. This is an ideal preparation for the time after their studies and helps to ease the transition from university into a career.

In this instance Gillian excelled and published valuable research as a result of her project, gaining an excellent reference and subsequent employment in the field of scientific research.”

EMPLOYER EXPERIENCE

NICOLA DUXBURY - LGC FORENSICS

“Having MSc students working with the ParaDNA team has enabled us to carry out research into a number of areas of our technology that we would not otherwise have had the resource to investigate. In some cases the results of this work have been incorporated into major project streams leading to improved product performance. In other cases they have carried out valuable proof of principle work for alternative applications which we have been able to share with other parts of the LGC business. Many of the research projects have also resulted in publications in peer review journals.

It also allows staff to gain experience of mentoring, an opportunity that would be otherwise very limited due to the small size of our team. Hosting MSc students at LGC has helped us to foster good relationships with a number of academic institutions and raised the profile of the work we do both here in ParaDNA and across LGC as a whole.”

STUDENT FEEDBACK

GILLIAN DONACHIE - MSC FORENSIC SCIENCE, UNIVERSITY OF STRATHCLYDE

“I found the Masters placement to be highly beneficial as it allowed me an excellent opportunity to add to my lab experience and learn new skills in an industrial environment. I was able to work with a team of people who put in time and effort with me to develop a research plan which I was interested in and was motivated to work hard to achieve the project aims. We developed a good working relationship which continued after the placement and allowed us to publish my research as a scientific paper, which was an excellent skill for me to learn and add to my CV.

Furthermore, I feel the placement experience has improved my CV and the time I spent on placement was a positive attribute which potential employers were interested in during the job application process. I also found I was less intimidated by job applications (including interviews) as I knew more what to expect as a result of undertaking the same process when applying for my placement role. I fully believe the placement experience has helped me move on in my career and encouraged me that scientific research was an area I wished to remain in.”





Middle and Senior Management Differences in Applying the Principles of the Corporate Athlete Paradigm in Middle Management

Drummond International, is a leadership development firm, based in Scotland. Drummond International supported by B Corp Team Scotland and local leaders in middle management development hosted a professional dinner for forum discussion and networking. The group considered how would they address some of the current challenges in middle management?

In response to that question a research project was designed, using the Corporate Athlete concepts, as postulated by Jim Loehr and Tony Schwartz in 2001. They suggested that there are four capacities (physical, emotional, mental and spiritual), which are supported through rituals and balanced work/rest ratios.

The research project sought to answer two primary questions:

- Do managers know the best practices for taking care of themselves on all levels of the four capacities?
- Are there differences between middle managers and senior managers in the practice of self-care?

The project focused on 9 middle and senior managers, who all volunteered to fill out a questionnaire and be interviewed. Four clear themes emerged from the research.

1. Managers are most vulnerable during transitions (i.e. changing jobs, moving, children being born, or marriage).
2. Organizational values are only powerful if they are understood and lived.
3. The Physical Capacity is relevant to business as ill health does not support the other three capacities.
4. More autonomy does not lead to better self-care. There was no significant difference between middle and senior managers, no matter the role, they were faced with the same challenges.

Although the research outcomes were powerful, the impact the managers had on the research team was above and beyond the most meaningful part of the study.

STUDENT FEEDBACK

ZACH MURPHY - MSC PERFORMANCE PSYCHOLOGY, UNIVERSITY OF EDINBURGH

"My work with Drummond International created a very transformational balance between research and application. I believe that starting with relationships is the best way to seek any outcome, and this project gave me that chance.

I was exposed to many members of the local community who are leading real people with real challenges, whether it be not having enough time, not having enough energy, or simply being too worn out to do anything extra.

This research project taught me how important it is to link research with industry. I was incredibly blessed to have a supervisor who supported me throughout the process, and guided me through a challenge I would not been able to navigate on my own. I was also very fortunate to have Drew Drummond along every step of the way.

My relationship with Drummond International will continue and my hope is that we are able to help managers in the community see the benefits of prioritizing self-care among other responsibilities."

EMPLOYER EXPERIENCE

DREW DRUMMOND - MANAGING DIRECTOR OF DRUMMOND INTERNATIONAL

"It's all about relationships. We had an opportunity to take some of the theory of the Master's programme and endeavour to put this into application. Whilst a self-starting process on behalf of the student, it very quickly became apparent of the benefits for all parties involved. Building on new and existing relationships enabled the reality, learning and benefits of research being able to be applied and lived out in a connected and current reality. It has and continues to work – thank you."



Award-winning Partnership for Sustainable Water Management

An Abertay MSc project led to a national environmental award! The award stemmed from collaborative work on a stormwater management MSc project that was supervised by Dr Rebecca Wade (Abertay University) alongside Dr Brian D'Arcy (C&D Associates). It involved testing a new product ('SUDSbox') designed by C&D Associates. The Student worked with a major residential developer (TaylorWimpey plc) to install this innovative technology at one of their sites, the project developed into a partnership which also included representatives from Scottish Government and Central Scotland Green Network Trust (CSGNT). This joint effort was the winner of the 2015 VIBES Co-operation Award. The Co-operation Award recognises organisations with the strategic vision to recognise that working in partnership can improve its overall contribution to sustainable development.

MSC PROGRAMME LEADER

DR REBECCA WADE - SCHOOL OF SCIENCE ENGINEERING AND TECHNOLOGY, ABERTAY UNIVERSITY

"The MSc Energy, Water & Environmental Management programme at Abertay University offers an integration of scientific, technical, managerial and entrepreneurial concepts. The MSc equips students with knowledge on efficient use of energy and water resources, whilst ensuring sustainability and environmental protection. The MSc programme is delivered by a team of leading academics supported by industrial practitioners. The links with industry and research result in interesting and applied MSc teaching and projects."

STUDENT FEEDBACK

JAMES TRAVERS - SENIOR ENGINEER, TAYLOR WIMPEY WEST SCOTLAND

"Why did I choose to study for my Masters at Abertay? I have been involved in residential site design for over 25 years and have seen drainage/SUDS design steadily grow and be more technically involved. I had previously been on two SUDS courses run by the Urban Water Technology Centre at Abertay University, they are regarded within the industry as a leader in the field."

"I was able to do the MSc course part-time, with support from my employer. I could keep working and also raise my profile in the SUDS community." An award-winning partnership has certainly helped with that. "I would definitely encourage other students to study at Abertay. I have already placed several of my staff on the on-line SUDS training courses at Abertay."

I could keep working and also raise my profile in the SUDS community.

EMPLOYER EXPERIENCE

STEPHEN ANDRE - TECHNICAL DIRECTOR, TAYLOR WIMPEY WEST SCOTLAND

"We're really delighted that our Torrance Park Water Project has secured such a high-profile award. It recognises the strength of the entire team that's been working together for some time now, and it truly reflects the benefit of collaborative working where each organisation is using its expertise to create an innovative way to encourage greener gardens that will contribute to the wider green infrastructure."

NEIL CAMPBELL AND BRIAN D'ARCY - PARTNERS OF C&D ASSOCIATES LLP

"We are thrilled to have received a VIBES Award. Our focus is on exploring new ideas to bring about practical solutions to problems that in turn bring significant environmental and business opportunities to Scotland."

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