We are always working to make improvements across the estate. Recently, we replaced the old lighting in the library with new LED panel luminaires, delivering a 32% reduction in energy consumption. We now have around 500 utility meters on campus, and in 2013 we initiated a project involving profile alerts, baselining expected utility usage in the buildings across campus so that alerts are sent when utility usage rises above the expected normal range—which usually indicates a problem. In less than 24 months this initiative has identified potential increases in consumption to the equivalent of £300,000, and has delivered a reduction in actual consumption of £90,000.

Towards the end of 2015, we installed additional water meters in the Smeaton Building to assist with identifying the cause of the high water usage in the building; consumption has since decreased by 35%. Our newest buildings on campus have incorporated some elements of sustainable technology as well, including a 20,000 litre water tank in The House and photovoltaic technology in the Wellbeing Centre and the Marine Station, and the Marine Station also has its own Combined Heat and Power boiler.

We have ambitious targets to reduce carbon emissions from our activities and to reduce our impact on the natural environment. It's important to create a campus that is a living example of sustainability, reducing our impact in practice as well as translating this through our teaching and learning environment. We've been successful in reducing our gas, electricity and water usage since 2005–06, created an award-winning sustainable catering service, and have begun to improve biodiversity and green spaces on campus, with the most significant achievement being the refurbishment of Drake's Place to Green Flag Award® standard.
WELCOME TO THE EXECUTIVE SUMMARY OF THE 2014–2016 SUSTAINABILITY REPORT

This summary includes highlights from Plymouth University’s full report, which is available at www.plymouth.ac.uk/your-university/sustainability.

The report is aimed at stakeholders who have an interest in our sustainability performance, including staff, students, local communities and local businesses. It focuses on our material sustainability issues and those that are of interest to our stakeholders, and reflects the University’s award-winning whole institutional approach to sustainability, incorporating operations, research, and teaching and learning.

The content of the report has been prepared in accordance with the comprehensive option of the G4 guidelines linked to the Global Reporting Initiative (GRI).

This summary provides a quick overview of our performance and activities for the reporting period. Please visit our website and our main report for a more complete story.

The report has been awarded a Green Gowns 2016 award in the Sustainability Reporting category and a Building Public Trust in Corporate Reporting award in the Sustainability Reporting in the Public Sector category, both for the quality and relevance of publicly available information provided by the institution.
I am pleased to introduce our fourth Sustainability Report which, for the first time, adopts the Global Reporting Initiative (GRI) Framework to put us on a global platform for sustainability reporting. The GRI adopts a robust framework to measure our performance across environmental, social and economic sustainability. It provides a broad review of our work since 2014, helping to deliver on our strategic ambitions for Plymouth University.

Our reputation for sustainability grows, and we are recognised as international leaders in the sector; since our last report, the University has risen one place in the People & Planet Green League to claim the top spot. The National Union of Students (NUS) awarded the University of Plymouth Students’ Union (UPSU) the Green Impact Gold Award, in recognition of how our staff and students work together to enhance the University’s ethical and environmental credentials. In partnership with UPSU, we also received a Responsible Futures Award from the NUS for the quality of our sustainability education.

In the summer of 2014, together with our commercial partner, University Commercial Services Plymouth (UCSP), we gained a Sustainable Restaurant Association Three Star standard, demonstrating that good food can be produced sustainably in any venue. The University also won a fantastic three Green Gown Awards in 2014 from the Environmental Association of Universities and Colleges (EAUC), which recognises the most inspirational projects across the sector. Plymouth won awards for food and drink, for our enterprise work, and for embedding sustainability in our courses and learning, demonstrating the breadth of our sustainability expertise. The University continues to support and host a wide array of activities on campus, including Fairtrade Fortnight, Bike Week, and regular campus markets featuring local producers and products.

We continue to work on reducing the impact of our campus operations on the environment, both in terms of our existing estate and in the design of our new buildings. In October 2015, our new Marine Station, certified ‘BREEAM Excellent’, won the 2015 Michelmores Property Award for ‘Commercial Project of the Year with a Value under £5 Million’ as well as being shortlisted in the Guardian University Awards under ‘Buildings that inspire’. The Marine Station followed the opening of our new performing arts centre, ‘The House’, again built to ‘BREEAM Excellent’ standard. In 2014, we reopened the historic Drake’s Place after an extensive £1.4 million restoration to its gardens and reservoir, providing a welcoming space to staff, students and the wider Plymouth community; Drake’s Place received Green Flag Award® status in 2015 which was renewed in 2016. June 2016 saw the formal launch of our Sustainable Earth Institute with an event where researchers, businesses, community groups and anyone with an interest in the subject had the opportunity to listen to the UK Government’s Chief Scientist, the Head of the BBC Natural History Unit, and the CEO of Friends of the Earth. This event set the scene for the new institute and helped promote our sustainability agenda, which extends beyond the University, making an influential and positive difference nationally and internationally.

I hope that you find the Sustainability Report informative and inspiring. I am grateful to all of our students, staff and partners for their sustainability work, some of which is included in the report. If you would like to get involved in our work directly, or simply offer ideas, then please feel free to contact us at sustainability@plymouth.ac.uk.
OPERATIONS

CARBON
REDUCE CO₂e BY 52% BY 2030. TO DATE:
- 15% reduction in CO₂e emissions since 2005
- 11.7% reduction in electricity use since 2005
- 33% decrease in gas use since 2004–05

TRAVEL
TO INCREASE THE NUMBER OF STAFF COMMUTING BY WALKING, CYCLING AND CAR SHARING BY 2% EACH BY 2017 AND 1% FOR STUDENTS. TO DATE:
- Unfortunately, staff walking has decreased by 6%, cycling by 2%, and car sharing by 1%
- Unfortunately, student walking has decreased by 5%, but car sharing has increased by 1% and cycling has remained at 3%

WATER
TO REDUCE WATER CONSUMPTION TO BELOW 3.3M³ PER STUDENT BY 2015. TO DATE:
- 35.8% reduction in water since 2005–06
- 3.78m³ water consumed per student in 2014–15, and we’re on target for 2015

FOOD
TO CREATE A SUSTAINABLE FOOD CULTURE ON CAMPUS. TO DATE:
- Fairtrade University
- Food For Life Silver award
- Three Star Sustainable Restaurant Association standard
- Green Gown Food and Drink Award 2015
- Taste of the West Silver and Gold awards

TEACHING AND LEARNING
TO ENABLE OUR STUDENTS TO ENGAGE WITH SUSTAINABILITY ISSUES AFFECTING THEIR PERSONAL AND PROFESSIONAL LIVES IN A RAPIDLY CHANGING WORLD, AND TO ENABLE ORGANISATIONAL LEARNING INVOLVING ALL MEMBERS OF THE UNIVERSITY COMMUNITY.
- Over 30 Education for Sustainable Development researchers in PedRIO (one of the University’s research institutes)
- Around 50% of the University’s curriculum programmes cover an aspect of sustainability

WASTE
TO RECYCLE 70% OF WASTE BY 2015 AND REDUCE WASTE TO 20KG OR LESS PER STUDENT. TO DATE:
- 40% of waste recycled in 2014–15
- 22kg waste generated per student in 2014–15
- 12% reduction in waste since 2011

BIODIVERSITY
TO MAINTAIN THE LEVEL OF GREEN SPACE ON CAMPUS COMPARED WITH 2011 LEVELS AND INCREASE THE NUMBER OF ANIMAL AND PLANT SPECIES AND MARINE ECOSYSTEM LEVELS COMPARED WITH 2011 LEVELS. TO DATE:
- Drake’s Place Gardens and Reservoir restored and reopened
- Beehives sited on campus

RESEARCH
TO CONTRIBUTE TOWARDS DEFINING THE PROBLEMS, AND CREATING SOLUTIONS, FOR THE WORLD’S MOST PRESSING ENVIRONMENTAL, ECONOMIC AND SOCIAL CHALLENGES.
- The Sustainable Earth Institute’s fourth annual conference in 2015 saw 230 delegates attend
- Seven small collaborative awards made providing seed funding to sustainability research projects
- Research manifesto with Plymouth City Council launched

PROCUREMENT
EMBED SUSTAINABLE PROCUREMENT BY ENSURING WE ARE PURCHASING FROM SOCIALLY, ETHICALLY AND ENVIRONMENTALLY RESPONSIBLE BUSINESSES
- 10% of procurement budget spent on local PL4 suppliers

CONSTRUCTION AND RENOVATION
ALL NEW CONSTRUCTION PROJECTS TO ACHIEVE AT LEAST BREEAM EXCELLENT
- The House, opened in 2014, built to BREEAM Excellent
- Marine Station and Wellbeing Centre, opened in 2014 and designed to BREEAM Excellent (awaiting final certification)
OPERATIONS
We are always working to make improvements across the estate. Recently, we replaced the old lighting in the library with new LED panel luminaires, delivering a 32% reduction in energy consumption. We now have around 500 utility meters on campus, and in 2013 we initiated a project involving profile alerts, baselining expected utility usage in the buildings across campus so that alerts are sent when utility usage rises above the expected normal range – which usually indicates a problem. In less than 24 months this initiative has identified potential increases in consumption to the equivalent of £300,000, and has delivered a reduction in actual consumption of £90,000. Towards the end of 2015, we installed additional water meters in the Smeaton Building to assist with identifying the cause of the high water usage in the building; consumption has since decreased by 35%. Our newest buildings on campus have incorporated some elements of sustainable technology as well, including a 20,000 litre water tank in The House and photovoltaic technology in the Wellbeing Centre and the Marine Station, and the Marine Station also has its own Combined Heat and Power boiler.

We have ambitious targets to reduce carbon emissions from our activities and to reduce our impact on the natural environment. It’s important to create a campus that is a living example of sustainability, reducing our impact in practice as well as translating this through our teaching and learning environment. We’ve been successful in reducing our gas, electricity and water usage since 2005–06, created an award-winning sustainable catering service, and have begun to improve biodiversity and green spaces on campus, with the most significant achievement being the refurbishment of Drake’s Place to Green Flag Award® standard.

PERFORMANCE
Our key performance indicators (KPIs) measure progress and key trends against sustainability objectives. These are mapped against the Global Reporting Initiative (GRI) aspects as included in G4.

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>GRI</th>
<th>2013–14</th>
<th>2014–15</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECONOMIC</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (£ million)</td>
<td>G4-EC1</td>
<td>234.1</td>
<td>236.5</td>
<td>24</td>
</tr>
<tr>
<td>Expenditure (£ million)</td>
<td>G4-EC1</td>
<td>233.2</td>
<td>230.4</td>
<td></td>
</tr>
<tr>
<td>Surplus (£ million)</td>
<td>G4-EC1</td>
<td>0.9</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Staff costs (£000)</td>
<td>G4-EC1</td>
<td>127,316</td>
<td>125,770</td>
<td></td>
</tr>
<tr>
<td>Funding body grants (£000)</td>
<td>G4-EC4</td>
<td>55,535</td>
<td>38,941</td>
<td>48</td>
</tr>
<tr>
<td>Procurement budget spent on local suppliers (%)</td>
<td>G4-EC9</td>
<td>10</td>
<td></td>
<td>39</td>
</tr>
<tr>
<td><strong>ENVIRONMENTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct GHG² scope 1 (tCO₂e)</td>
<td>G4-EN15</td>
<td>2598</td>
<td>2463</td>
<td>26</td>
</tr>
<tr>
<td>Indirect GHG scope 2 (tCO₂e)</td>
<td>G4-EN16</td>
<td>8,587</td>
<td>7,664</td>
<td>26</td>
</tr>
<tr>
<td>Indirect GHG scope 3 (tCO₂e)</td>
<td>G4-EN17</td>
<td>31,863</td>
<td>31,131</td>
<td>26</td>
</tr>
<tr>
<td>GHG emissions intensity (scope 1 &amp; 2 per student)</td>
<td>G4-EN18</td>
<td>896</td>
<td>516</td>
<td>26</td>
</tr>
<tr>
<td>GHG change (tCO₂e) (scope 1 &amp; 2)</td>
<td>G4-EN15</td>
<td>+3,525,562</td>
<td>8,014,415</td>
<td>26</td>
</tr>
<tr>
<td>Total energy consumption (GJ)</td>
<td>G4-EN3</td>
<td>105,286</td>
<td>102,642</td>
<td>33</td>
</tr>
<tr>
<td>Total renewable consumption (GJ)</td>
<td>G4-EN3</td>
<td>965</td>
<td>515</td>
<td>33</td>
</tr>
<tr>
<td>Energy intensity (GJ per student)</td>
<td>G4-EN5</td>
<td>5.2</td>
<td>5.2</td>
<td>33</td>
</tr>
<tr>
<td>Reduction in energy consumption (GJ)</td>
<td>G4-EN6</td>
<td>4,926</td>
<td>2,645</td>
<td>33</td>
</tr>
<tr>
<td>Water withdrawal from municipal water supplies (m³)</td>
<td>G4-EN8</td>
<td>79,245</td>
<td>74,701</td>
<td>35</td>
</tr>
<tr>
<td>Water recycled and reused (%)</td>
<td>G4-EN10</td>
<td>0.34%</td>
<td>0.59%</td>
<td>35</td>
</tr>
<tr>
<td>Total waste (tonnes)</td>
<td>G4-EN23</td>
<td>475</td>
<td>601</td>
<td>37</td>
</tr>
<tr>
<td>Hazardous waste (tonnes)</td>
<td>G4-EN25</td>
<td>1.37</td>
<td>2.23</td>
<td>37</td>
</tr>
<tr>
<td>Transport (tCO₂e)</td>
<td>G4-EN30</td>
<td>4,782</td>
<td>2,849</td>
<td>29</td>
</tr>
<tr>
<td><strong>SOCIAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee turnover (%)</td>
<td>G4-LA1</td>
<td>13</td>
<td></td>
<td>62</td>
</tr>
<tr>
<td>Staff accidents</td>
<td>G4-LA6</td>
<td>100</td>
<td>91</td>
<td>67</td>
</tr>
<tr>
<td>Average hours of staff training per employee</td>
<td>G4-LA9</td>
<td>5.6</td>
<td></td>
<td>63</td>
</tr>
<tr>
<td>Employees receiving regular development review (%)</td>
<td>G4-LA11</td>
<td>75</td>
<td></td>
<td>63</td>
</tr>
<tr>
<td>Total number of grievances about labour practices</td>
<td>G4-LA16</td>
<td>4</td>
<td></td>
<td>65</td>
</tr>
<tr>
<td>Consumer (student) satisfaction rates (%)</td>
<td>G4-PR5</td>
<td>85</td>
<td>87</td>
<td>59</td>
</tr>
</tbody>
</table>

² Greenhouse Gas Emissions
OPERATIONS

We have ambitious targets to reduce carbon emissions from our activities and to reduce our impact on the natural environment. It’s important to create a campus that is a living example of sustainability, reducing our impact in practice as well as translating this through our teaching and learning environment. We’ve been successful in reducing our gas, electricity and water usage since 2005–06, created an award-winning sustainable catering service, and have begun to improve biodiversity and green spaces on campus, with the most significant achievement being the refurbishment of Drake’s Place to Green Flag Award® standard.

We are always working to make improvements across the estate. Recently, we replaced the old lighting in the library with new LED panel luminaires, delivering a 32% reduction in energy consumption. We now have around 500 utility meters on campus, and in 2013 we initiated a project involving profile alerts, baselining expected utility usage in the buildings across campus so that alerts are sent when utility usage rises above the expected normal range – which usually indicates a problem. In less than 24 months this initiative has identified potential increases in consumption to the equivalent of £300,000, and has delivered a reduction in actual consumption of £90,000. Towards the end of 2015, we installed additional water meters in the Smeaton Building to assist with identifying the cause of the high water usage in the building; consumption has since decreased by 35%. Our newest buildings on campus have incorporated some elements of sustainable technology as well, including a 20,000 litre water tank in The House and photovoltaic technology in the Wellbeing Centre and the Marine Station, and the Marine Station also has its own Combined Heat and Power boiler.
Across campus our buildings incorporate a number of sustainable technologies to help us reduce our negative impact on the environment and reduce our utility usage.

1. Solar thermal hot water
2. Thermal decks
3. Passive ventilation
4. Night time cooling
5. Solar shading
6. CHP location
7. Voltage optimisation
8. High-efficiency LED lighting
9. Lighting sensors
10. Rainwater harvesting
11. Low-loss transformer
12. Large gardens and growing space
   Inverter controls all across campus
13. Photovoltaics
   Green roof and photovoltaics – Dental School
RESEARCH

Across health, science, technology, the arts and the humanities, our people are advancing knowledge and transforming lives through research. We have a commitment to applying world-leading research to the grand challenges of our global society. We are delivering research that helps to advance global change by providing evidence that underpins policy making and shapes the way organisations operate, creating jobs and opportunity. In 2014, we were ranked 66th on grade point average in the Times Higher Education Research Excellence Framework (REF 2014) results, up from 75th position in 2008. We were ranked number one in the country for Research Outputs in Clinical Medicine; and Earth Systems and Environmental Sciences (which includes marine, environmental chemistry and geology) was our highest-rated submission, with 85% of the research graded as 3- or 4-star standard. A number of other courses were also ranked highly; for more information, please visit our webpages.

The Sustainable Earth Institute (SEI) leads the action areas on sustainability research in collaboration with other research institutes, centres and groups across the University. Based in the Faculty of Science and Engineering, the SEI promotes interdisciplinary partnerships and pursues applied research, investigating and tackling the diverse environmental, economic and social challenges that threaten a sustainable future. The aim of the SEI is to contribute towards defining the problems, and creating the solutions, for the world’s most pressing environmental, economic and social challenges. In 2015, the SEI organised their fourth annual conference entitled ‘Cracking Earth 2015: Building Sustainability Research with Foundations’, which attracted over 230 internal and external attendees, an increase on the 170 attendees who attended the 2014 conference, revealing a growing success. In 2015, the SEI also launched its pioneering research manifesto with Plymouth City Council aimed at tackling sustainability issues that are impacting the city, defining unique research opportunities and providing the platform for increased collaboration with the city council over key issues including health, housing, transport, water quality, flooding and food.

There is a wealth of ongoing research activity at the University, and total research funding has increased from £11.5 million in 2013–14 to £15.1 million in 2014–15. This research includes a wide breadth of sustainability research ranging from the incorporation of sustainability into nursing practices via the NurSus project, the impact of plastic marine debris on marine life, potential treatment for Parkinson’s disease, to the impact of rocky shore platforms on wave energy. More information on research projects is available on our webpages.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total research funding (£ million)</td>
<td>13.3</td>
<td>11.5</td>
<td>15.1</td>
</tr>
</tbody>
</table>

Marine Building COAST laboratory.

Falcon Spirit, School of Marine Science and Engineering, a flexible platform for teaching and research.

School of Computing, Electronics and Mathematics robotics laboratories.
One of our greatest impacts on sustainability is ensuring that our students are equipped with the knowledge and skills to apply sustainability principles in their future workplace, whether that is in constructing sustainable buildings or supporting investment in ethical funds. We are committed to enabling our students to engage positively with sustainability issues affecting their personal and professional lives, and support organisational learning involving all members of the University community.

The Centre for Sustainable Futures (CSF) is the education team responsible for driving forward the Education for Sustainable Development (ESD) agenda, as part of the wider Teaching and Learning Support group and the Pedagogic Research Institute and Observatory (PedRIO), involving over 30 academics. Working closely with professional and academic staff and students across the University, the CSF leads and supports the ESD agenda through curriculum support and research. In 2015, Plymouth University received the Responsible Futures accreditation from the National Union of Students for work embedding sustainability into both the formal and informal curriculum. We are committed to extending the provision of ESD to all degree programmes; currently around 50% of curriculum programmes include an aspect of sustainability content, or a pedagogical approach. To advance this, the CSF works with staff to provide the space and resources to develop new learning resources and approaches for sustainability education. Additionally, there is a focus on extracurricular sustainability opportunities outside the formal classroom.
SOCIETY, LOCAL COMMUNITIES AND COMMUNITY ENGAGEMENT

Our approach to community engagement is to open up our facilities and skills to the wider community, and engage in partnerships which improve the lives of others and improve the learning for our students. We have a dedicated External Relations partnerships and community engagement team that lead on such outreach and partnership activity, leveraging mutually beneficial opportunities across core University business, including brand and reputation, student experience, academic endeavour and research, giving visibility to those outcomes to inspire others.

The past two years have seen many successful community and partnership projects. We launched our ‘Come On In’ campaign to encourage community engagement and visitors on campus through the sharing of our facilities, such as the library, cafés and gym. Our School of Law, Criminology and Government, which has a long history of offering pro bono work, recently launched the Law Clinic, where students offer real representation and advice to individuals and families, thus making a real difference to clients’ lives. The clinic is growing, with up to 60 students having helped over 100 clients between 2013 and 2015. Our students are providing free eye care to members of the public through our award-winning Centre for Eye Care Excellence, located near Plymouth town centre. We also provide free dental care and advice through our four Dental Education Facilities across the South West, addressing dental health inequalities in the region, attending to over 10,000 patients in 2015. Our official charity partner is Brain Tumour Research. We are proud to be one of only four universities in the UK working with Brain Tumour Research to improve the treatment and outcome of brain tumours. Our Plymouth University Centre of Excellence specialises in low-grade brain tumours to identify and understand the mechanism behind the development of brain tumours, in the hope that greater understanding may lead to exploring ways to halt or reverse that mechanism in the future.
The University is committed to providing information in accessible formats. If you require information from this guide in an alternative format, please contact:

Tel: +44 1752 600600
Email: sustainability@plymouth.ac.uk

Learn more
To learn more about sustainability at Plymouth University:
Read the full report at www.plymouth.ac.uk/sustainability

AWARDS AND ACCREDITATIONS

- ISO 14001
- Fairtrade University
- First University to be awarded the Social Enterprise Mark
- Athena SWAN: 2014 Bronze Award
- Green Gown Awards: 2014 winner for ‘Food and Drink’, ‘Enterprise’ and ‘Courses and Learning’
- Abercrombie Awards for Drake’s Place: 2014 winner of Best Public Space and People of Plymouth awards
- Green Flag Award® status for Drake’s Place Gardens and Reservoir 2015 and 2016
- Guardian University Awards: 2015 winner for Social and Community Impact
- Green Impact Students’ Union Scheme: 2015 Gold winner (UPSU)
- Food for Life Catering Mark: 2015 Bronze and Silver winner
- Sustainable Restaurant Association: 2015 Three Star standard
- Taste of the West: 2015 Silver and Gold winner

SUSTAINABILITY WITH PLYMOUTH UNIVERSITY