



University Student Satisfaction:

Staying relevant in a digital age

Life Is On

Schneider
Electric

Introduction

In recent years, university campuses have evolved significantly, with some now replicating miniature cities. In addition to academic buildings, they can involve; bars and restaurants, shops and cinemas, medical centres and nurseries. Creating campus environments can form a sense of community within a university, positively contributing to student's wellbeing. Additionally, a university can benefit from a multi-purpose, high-spec campus by incentivising students to remain on site. In doing so, the campus can act as an additional source of revenue to tuition fees, as the more time a student spends on site, the more money they're likely to spend on university facilities and carparking.

A UK [Student Experience Survey](#) investigated factors influencing perception of value. Significantly, campus development was ranked 3rd when students were asked which areas of university are the most reasonable use of their tuition fees, underlining the importance of investment in developing and modernising estates. Continue reading to discover ways to develop and modernise your estate, and the technologies you can leverage to improve student wellbeing and satisfaction.



1 Student Comfort

- Creating Comfortable Learning Spaces
- Agile and Adaptable Environments
- Creating a Comfortable Home

2 Technology and Trends

- University Mobile Apps
- Online Learning Trends

3 Safety and Security

- Safe and Secure Students
- Safe and Secure Data

4 Sustainability

- Passionate about Sustainability
- Sustainability Strategy Development
- Carbon Reduction Steps

Student Comfort

A typical student spends three to four years studying for a bachelor's degree, and many remain in higher education for Masters or PhD studies. With a substantial portion of their lives spent on university grounds, students should feel comfortable and satisfied on campus, from lecture room to library, onsite eateries to student accommodation.

Creating comfortable learning spaces

During our lives, many of us will be subject to a dissatisfactory working environment. With regards to the physical environment of a workspace and satisfaction, the most essential criteria involve: **functionality** (size, layout, furniture etc.), the **aesthetics** of the room, and **ergonomic factors** (lighting, temperature, ventilation and so on).

A **statement** from the World Green Building Council mentions that the environment has a tremendous impact on how students learn. It would seem obvious that a student's performance would suffer if it is too hot to concentrate, yet many don't realise that factors like CO2 levels and types of lighting can also significantly impact academic performance.

Read more about comfortable learning spaces [here](#).



Creating comfortable learning spaces

A key trend in higher education is the **adoption of remote learning**, where students can attend virtual lectures online. As a result, creating an attractive, comfortable learning environment that incentivises students to be present on campus is all the more important.

In order to optimise building comfort, we require the ability to **monitor**, **collect** and **measure** room condition data. Many universities are comprised of multiple campuses, with each of these campuses encompassing a variety of buildings. With a large task at hand, estate and facility managers would benefit from an overall view of their building conditions. Paired with alarming capabilities, which could highlight when a room leaves the desired predetermined state, they can efficiently and effectively optimise comfort for their students and staff.

Solutions



Agile and adaptable environments

University can at times be stressful for students, particularly around exam period or when coursework and dissertations are due. **Access to resources** such as library spaces, meeting rooms and research facilities are beneficial to student wellbeing and satisfaction. Millennial students expect that study rooms are open in a 24/7 mode, and that they have fast access to resources. In fact, during a **study** which focused on millennial students' expectations of higher education, technical equipment and the availability of work and resting rooms were stressed as important.

Digital systems, which have traditionally been adopted in office environments, could also be a valuable asset on a university campus. Some systems, in conjunction **with connected IoT sensors**, can provide building managers the necessary data to smartly manage spaces to optimise their use, improve comfort and enhance student experience. At the same time, students can find efficient and convenient ways to connect to their campus facilities, for example – real-time information on the number of spaces available in their libraries.



Agile and adaptable environments

Additionally, data collected from systems can aid the trend of 'agile work spaces'. At it's simplest, **an agile workplace** is one that successfully balances the people, places and processes of its organisation. For example, a lecture space which is under utilised can be repurposed for a more appropriate activity, if a library is often at full capacity, perhaps additional space is required to satisfy student needs.

Solutions



Creating a comfortable home

Leaving home for the first time, to a brand new city with unfamiliar faces can be a daunting step in a student's life. Ten years ago, student accommodation comprised of dated halls of residence and damp HMO's, where **the deciding factor** for students was location and distance to university facilities.

In recent years, the sector has flourished, and with ever increasing competition, this trend is set to continue. Today, students have a vast choice of good quality accommodation featuring luxury amenities such as cinemas, social areas and gyms. As a result, students have increasingly chosen service and quality over convenience and location.



Creating a comfortable home

To differentiate from the competition, quality and attention to detail are key factors. The finishing touches to a room can create a unique, comfortable environment for students to feel at home.

Gone are the days of cold, dingy 'digs'. As well as room aesthetics, the ability to control heating conditions, via an app, is a unique selling point for accommodation providers. Imagine a student has spent a long day in the library, mobile apps can enable them to set the heating to turn on before they arrive home, making for a comfortable, satisfied student.

Finishing touches

Room control



Technology and trends

The nature of Higher Education, how it is delivered and the role of universities in society is changing. **Universities are competing globally** for students, academics and funding, and only those that stay relevant and leverage new digital capabilities will benefit from this digital age. Amid rising costs of higher education, expectations regarding value for money are also on the incline: students have become customers who bring their own digital world expectations to university.

University mobile apps

Moving with the times

As the idea of the “traditional” student disappears from higher education, campus communities are responding to an increasingly **diverse** student body, with a wide range of backgrounds, interests and perspectives. To ensure that all students, regardless of these differences, experience a university journey that satisfies their needs, we must **expand** the traditional campus to deliver on the individual requirements. **More and more institutions** are realising that mobile can offer the flexibility to create personalised experiences with a platform that can scale across large student bodies and many campuses.

Existing platforms, which are proactively being adopted within universities, allow organisations to tailor the application’s components to the necessities of users. Starting university is a life-changing transition for all students, to ease this transition new student orientation (NSO) modules can be involved, helping them to get situated on campus and providing opportunities to connect with others.



University mobile apps

Moving with the times



University can occasionally feel isolating, for high and low performing students alike. Affordability and campus environment are two of the biggest stressors for students, and stress can contribute significantly to mental health. Whilst **an App** can contain resources to help students through issues like finding affordable housing or managing budget, a wellness module can also be incorporated.



Social media is now the primary communication channel for many; institutions are realising communications are more likely to be read if sent through a mobile device.

Apps can be utilised to ensure students are receiving information that is critical to them, allowing for a tailored approach such as class year, degree topic, as well as allowing students to self-select the communications they find the most interesting.



A strong **community** is key to a positive student experience, studies show that having a sense of belonging to the campus community and being socially active are strong contributors to a students' success. Mobile can bring people together under shared interests and keep students connected to your institution.

Solutions



Online learning trends and IT

More than ever, technology is a deciding factor for students' choice of university. Innovative IT plays a fundamental role in any modern university's operations, thereby effecting many aspects of a students' experience.



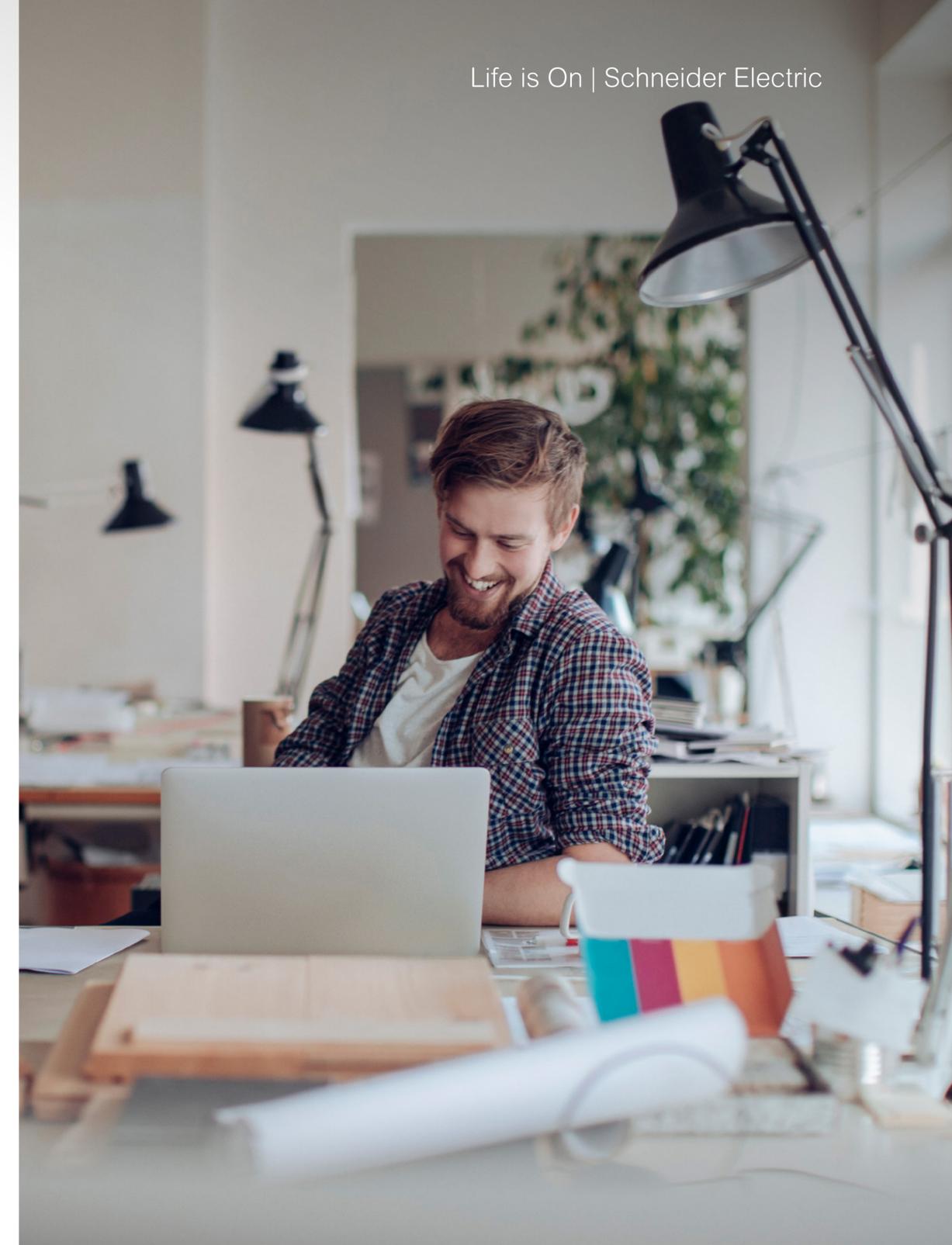
On campus, faculties and students are **rapidly integrating connected devices into their work**, from interactive whiteboards to wireless printers. Furthermore, facility managers are leveraging IoT to detect and repair issues before users realise there is a problem, ensuring a seamless experience.



Online teaching is a key trend in the higher education sector, and due to recent university access restrictions, **some institutions have reported** that **all** of their lectures will move online for the foreseeable future. If connectivity problems and latency issues arise, students may struggle to engage with online lectures.



A challenge for universities' is having an IT infrastructure that is able to adapt to and sustain new ways of working, to support data security and increased storage needs. Data centre solutions that are quick to install and easy to adapt are required to provide increased capacity.



Online learning trends and IT

Many organisations use **Cloud storage** as a solution to meet these demands, where data is stored offsite. An increasingly popular solution is 'Edge Computing', where data is stored on-site (or on 'the edge'), close to the data source. Edge storage brings several benefits including: reduced latency, saved bandwidth and improved security.

Many universities contain research facilities, which can produce terabytes of data every day. The volume and velocity of this data means cloud services are sometimes unsuitable for storage needs, and the data sensitivity makes the location of data storage critical. Universities should consider adopting a hybrid IT estate, which leverages both **Cloud and Edge** storage, thereby reaping the benefits that both solutions offer.

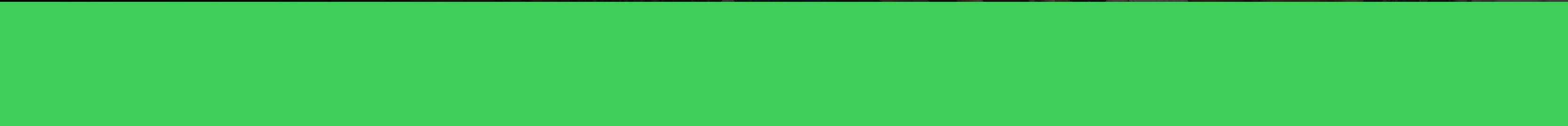
With an inevitable increase in connectivity, data volume and further breakthroughs in technology, as well as increasing student expectations, the above must be carefully considered by the higher education community.

Solutions



Safety and security

There are many aspects to student safety, from ensuring university buildings are safe environments by eliminating hazards to providing safe equipment and limiting access to buildings to only those with permission. Moreover, online threats such as cyber-attacks and scams are a more recent and increasing concern. Universities should make all necessary actions to make certain their students are protected.



Safe and secure students

Perhaps no other type of organisation has as diverse a facility infrastructure as that of universities. To serve populations of students that can reach 30,000 or more, institutions run self-sufficient cities in-and-of-themselves. These complex environments are a challenge to monitor many people to keep safe and assets to secure. An optimal campus security plan has four main components:

Protect

Secure

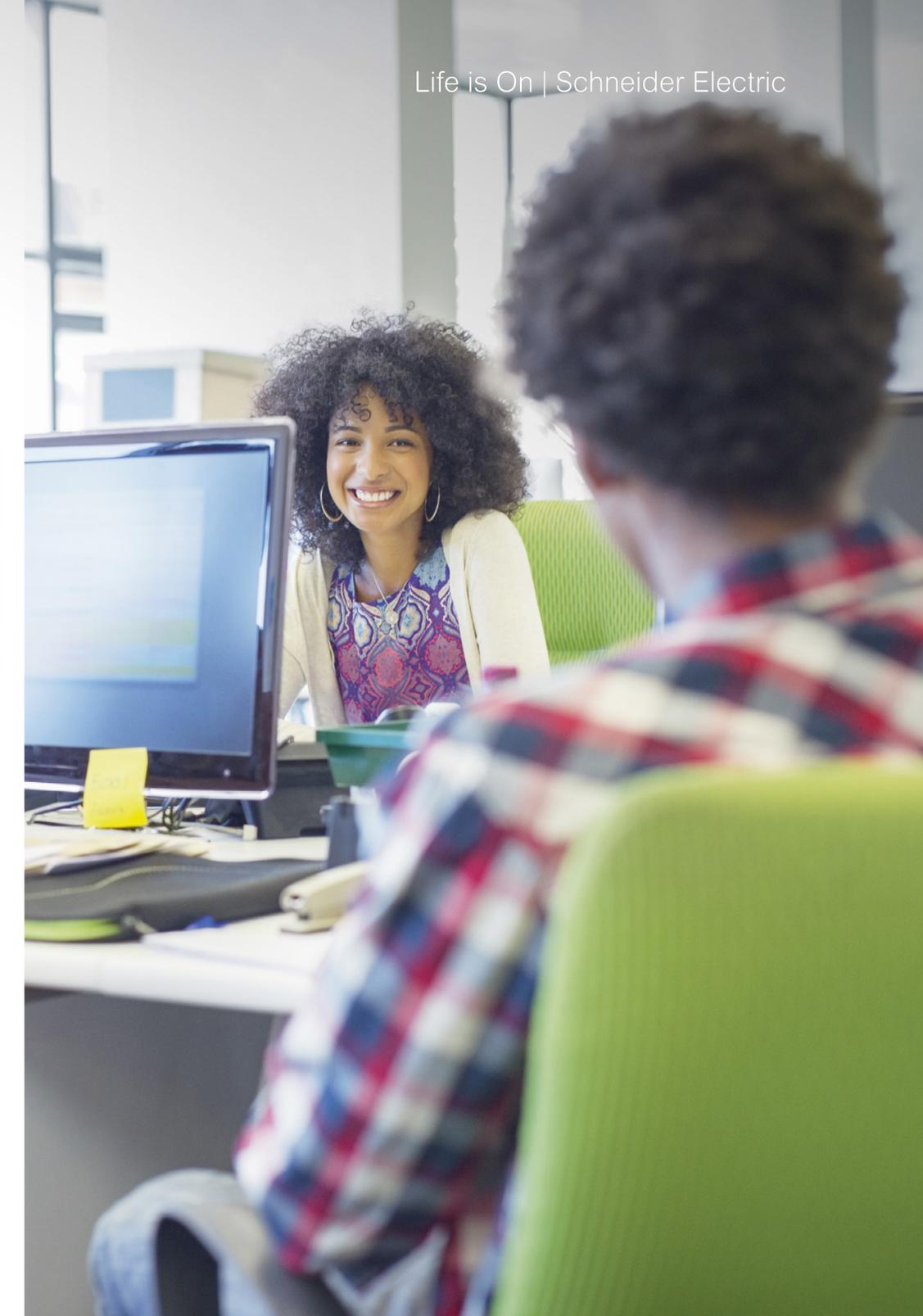
Capture

Act

By following this four-part strategy, university officials can ensure a comprehensive approach with multiple measures for optimum security on campus.

To ensure **protection** of people and assets, security officers gain the most value from integrated systems that include elements such as:

- Access control
- Fire safety
- Visitor management
- Intercom communications
- Video surveillance
- Biometric verification



Safe and secure students

Safer environments are created when facilities are properly **secured** and security protocols adhered to. A robust security infrastructure ensures that all components work together seamlessly to create effective layers of security. If an event were to occur, what processes are in place to isolate the incident? An intrusion detection application can alert officials of an incident while an electronic access control system can initiate an automatic building lockdown to prevent entry or egress in an at-risk area.

Capturing actions and incidents surrounding a security breach can be of the utmost importance to inform future decisions and prevent incidents reoccurring.

Systems in place are not complete without a well-devised action plan. The same security management system previously discussed can also be used to **act** and utilise mass notifications to instantaneously alert students to stay away from at-risk areas.

Solutions



Safe and secure data

Universities store and process vast amounts of **data** including personal information of students and staff, coursework and sensitive data from research studies. Increasingly, universities have been the target of sophisticated and malicious Cyber attacks, therefore IT solutions must protect critical data.

Furthermore, a student's ability to access documents on the university system should not be compromised, thus **IT solutions** should ensure the availability of servers and applications with secure power and fast server adjustment. Within campus data centres, uninterruptable power supply (UPS) and critical power and cooling are important components of a smart and reliable university infrastructure.

Building security is paramount within universities. In order to keep sensitive areas like research labs or data centres secure, access control should be implemented such as an access card and biometric identity verification (e.g. a fingerprint, iris scan, etc.).

Cyber Security

Uninterrupted Power



Passionate about Sustainability

In 2019 the United Nations released an [Emissions Gap Report](#), which included the steps we must make as a planet to limit global warming. As large producers of carbon, universities are not exempt from this target and they have a responsibility to follow suit and set a good example to other organisations. Many universities in the UK have set ambitious carbon reduction plans to achieve the government target of [net zero by 2050](#).

Passionate about sustainability

As well as adhering to government legislation, **research suggests** that there is a strong correlation between achieving **sustainable development** and self-reported measures of well-being, particularly in developed countries.

University students are passionate about sustainability, and this passion carries across to the institutions in which they study. For example, **websites** are actively adopted, that include university sustainability league tables, measured and ranked on attributes including **carbon reduction** and **environmental policy**.

It can be difficult to know where to begin when setting a carbon reduction plan for your institution. **The best place to start** is by approaching **experts** who can calculate your current emissions and develop a plan for your university.



Sustainability strategy development

The Global Universities Partnership on Environment for Sustainability (GUPES) developed a **tool-kit** “to provide universities with the basic strategies and tactics necessary to transform themselves into green, low-carbon institutions.”

The tool-kit suggests a review of the following areas:

Energy conservation: Staff energy conservation training, energy awareness programs, improved space utilisation and energy efficiency standards for new constructions and refurbishments

Energy efficiency: Building retrofitting; heating; ventilation and air-conditioning; and periodic recommissioning and building tuning to optimise energy efficiency

Renewable and alternative energy: Purchase of certified ‘green power’ and the installation of solar cells, wind, biomass, and other renewable energy systems



Carbon reduction steps

Some steps that universities can incorporate into their sustainability strategy include:

- Optimising **rooms conditions** in academic buildings to ensure the most efficient use of energy
- **Student accommodation** with building management controls – some solutions allow students to see how much energy they are saving
- An **efficient IT Infrastructure**
- Ensuring optimised **power** quality and **asset** performance
- **Electric Vehicle** charging points on-site
- Longer term solutions, such as **Microgrids**

Solutions



Sources

Student Academic Experience Survey 2019 (page 13)

<https://www.hepi.ac.uk/wp-content/uploads/2019/06/Student-Academic-Experience-Survey-2019.pdf> page 13

Student Expectations Towards Physical Environment In Higher Education

<http://tf.llu.lv/conference/proceedings2018/Papers/N361.pdf>

New report shows green improvements in school buildings have positive impacts on student performance

<https://www.worldgbc.org/news-media/new-report-shows-green-improvements-school-buildings-have-positive-impacts-student>

The secret to an agile workplace

<https://www.officerenew.com/tips-and-trends/place/agile-workplace-utilization-studies/>

The evolution of student accommodation: A graduate's view

<https://www.alltop.co.uk/media/evolution-student-accommodation-graduates-view/>

Staying relevant in the digital age

<https://www.pwc.co.uk/assets/pdf/the-2018-digital-university-staying-relevant-in-the-digital-age.pdf>

10 Mobile Strategies To Increase Student Success

<https://www.modolabs.com/assets/10-Strategies-Increase-Student-Success-Ebook.pdf>

Colleges Adapt IT Infrastructure to Expand Internet of Things

<https://edtechmagazine.com/higher/article/2018/06/colleges-adapt-it-infrastructure-expand-internet-things>

Cambridge University moves all lectures online until summer 2021

https://www.theguardian.com/uk-news/2020/may/19/cambridge-university-moves-all-lectures-online-until-summer-2021?CMP=fb_guandutm_medium=Socialandutm_source=Facebook#Echobox=1589955649

Emissions Gap Report 2019

<https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&disAllowed=y>

UK net zero target

<https://www.instituteforgovernment.org.uk/explainers/net-zero-target>

Sustainable Development and Human Well-Being

https://happiness-report.s3.amazonaws.com/2020/WHR20_Ch6.pdf

People and Planet

<https://peopleandplanet.org/>

The Process of Becoming Carbon Neutral: How Universities Can Hit Net Zero Emissions

<https://www.qs.com/the-process-of-becoming-carbon-neutral-how-universities-can-hit-net-zero-emissions/>

Greening Universities Toolkit

http://wedocs.unep.org/bitstream/handle/20.500.11822/11273/Greening_unis_toolkit_Single_Page.pdf?sequence=1&disAllowed=y

Life Is On



Learn more about Schneider Electric products at:

Schneider Electric

United Kingdom
Stafford Park 5,
Telford
Shropshire TF3 3BL

© 2020 Schneider Electric. All Rights Reserved. Life Is On Schneider Electric and EcoStruxure are trademarks and the property of Schneider Electric SE, its subsidiaries and affiliated companies.

SE11462