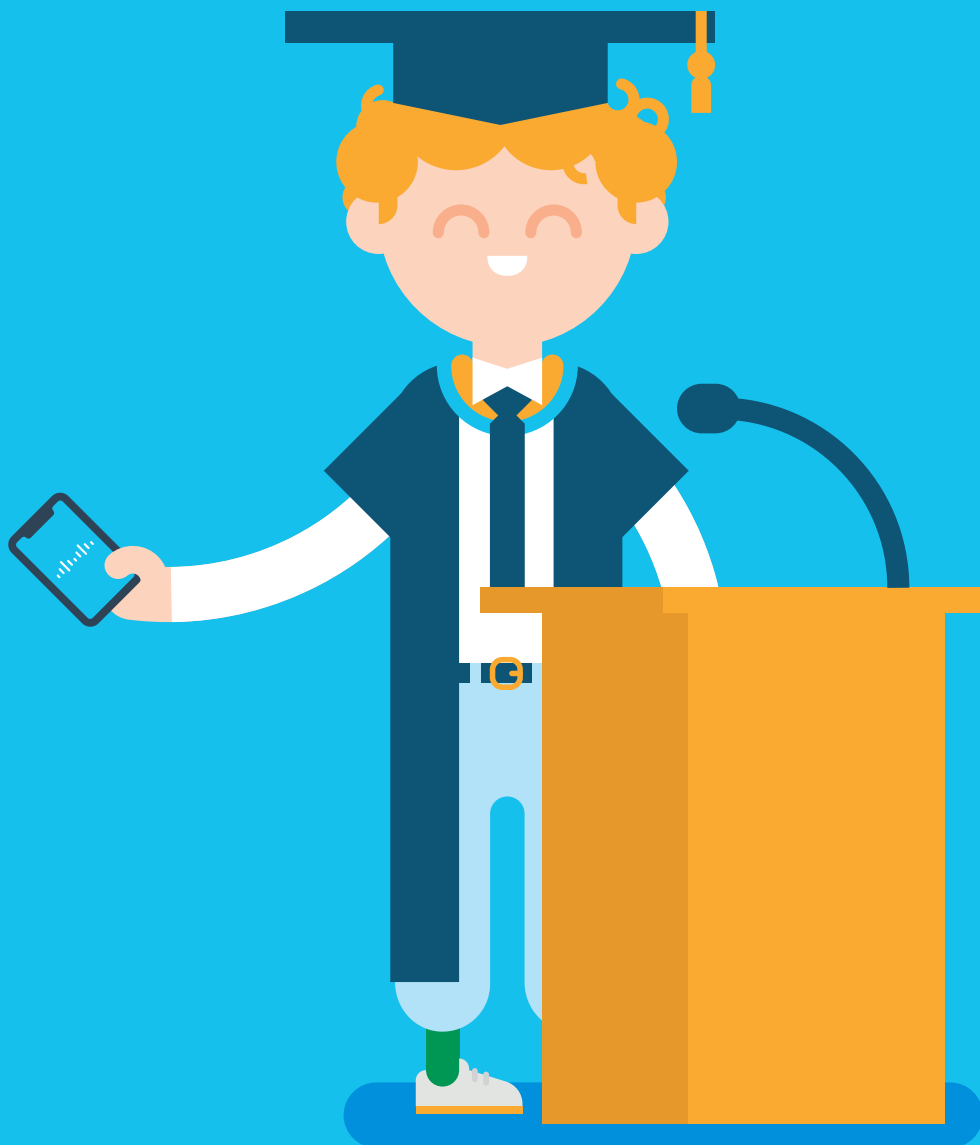# Building an intuitive future for higher education

Contents

Introduction

There's no doubt about it: investment in university infrastructure is on the rise.

UK annual spend on university estate reached £3 billion for the first time in the 2015-2016 academic year to cater for the country's 1.7 million students.

Some of these additional funds go towards refurbishing old buildings, but they're also used to build new ones that will be more carbon and cost-efficient in the long run.

And it's working.

Despite managing an extra half-a-million square metres of estate between them, property costs for UK universities are roughly the same as they were three years ago.

On top of that they're of higher quality and in better condition than ever.

But with the sector increasing its estimate of improvements needed in the coming years, it's clear that further investment will be vital in order for our universities to keep up with the demands of staff and students.

With student numbers predicted to remain stagnant for some time - and in some cases even reduce - this is likely to be the cause of many sleepless nights for estate decision-makers.

We believe a totally new approach is the answer.

A 21st-century response to a 21st-century challenge. One that meets the needs of staff and students alike, keeps costs under control and allows universities to evolve with the times.

But most importantly, an approach that transforms the student experience in ways we've never seen before.

Welcome to the intuitive campus: a new type of higher education environment powered by human-centric connectivity and processes.

In this report we explain what the intuitive campus is and how it can help transform universities and higher education for ever.

Read on to find out more.

Our goals

Our mission is to move away from technology-centred campuses towards a campus that is totally responsive and centred around the needs of the people who use it.

Higher quality of life

Economic competitiveness

More sustainable universities

Chapter 1: The future of higher education

Why do universities exist?

To transform the lives of their students. To inspire change in the world by helping people become the best they can possibly be in their chosen field. That's some responsibility, not least because it has a massive impact on the future prosperity of the country and wider economy.

To achieve such lofty goals universities need technology fit for the students of today and tomorrow. And they need it now.

Why? Because the way students expect to work and learn is fast evolving. They are networked individuals who consume information in any number of ways.

This means education has had to evolve. The days of primarily sitting in a room listening to lecturers speak are behind us. Yes, those traditional methods still apply. But today they're supported by multiple different streams of learning materials across physical and digital formats.

In short: a blended learning approach.

By embedding connected technology into physical infrastructure, universities can provide an education experience far more in tune with the next generation of students – a personalised experience that can scale and transform as technology improves and the needs of students continue to evolve.

Dealing with the issues of today

There is another, arguably more pressing, reason to transform universities through intuitive connectivity:

Attracting students in the first place. And keeping them.

University drop-out rates rose in 2017 for the third consecutive year, according to a report by the Higher Education Statistics Agency, with many students dropping out before the end of their first year.

Of course, there are many potential reasons for this. But the Higher Education Policy Institute's director Nick Hillman suggested it was largely due to "lower value-for-money perceptions among students" caused by increased fees, along with many students not always getting the support they need "in full."

An intuitive campus can help solve both those issues, providing an all-round better service for students and giving them the help they need throughout their time at university.

But apart from attracting and retaining students, the intuitive campus could have a wider impact on universities as a whole, from improving research and knowledge to driving internationalisation and ultimately, providing greater financial stability.

The needs of today's universities

Enriching the student experience

- Create better environments in which to study and live
- Improve people's graduate prospects
- Offer people the right courses for them
- Develop new ways of teaching and learning
- Improve student on-boarding
- Boost enrolment
- Improve attainment and retention

Increasing international reach

- Gain global access to research results and access to research projects the university undertakes.
- Make talent more readily available
- Improve financial stability through higher international fees
- Enrich the global diversity of the university

Improving research and knowledge

- Provide greater access to available funds
- Attract and retain the best talent
- Give students more access to great minds
- Help students achieve their undergraduate goals and encourage them to undertake post-grad and research positions. Improve student progression to achieving their undergrad
- Commercialise research more effectively

Achieving greater financial stability

- Increase teaching and research income
- Reduce operating costs
- Utilise space more effectively
- Improve workplace productivity
- Have a positive local and national economic impact

CISCO

Chapter 2: Why choose an intuitive campus?

In the previous chapter we highlighted the challenges facing universities today, and outlined how a people-focused digital approach could help overcome them. But why is an intuitive campus the right choice and how does it differ from what's gone before?

In reality, it's a logical progression from what Cisco has already talked about in recent years.

Firstly, you take the traditional campus and add digital technology. Then you join everything up using sensors and wireless connectivity, bringing previously siloed technologies and datasets together to create a smart campus.

The idea of an intuitive campus is to use pre-existing technology in a more people-centric way, improving the wellbeing of staff and students and providing a completely effortless and personalised experience, from the day they arrive at university to the day they graduate.

Ultimately, it's about removing friction from people's university lives – giving them what they need, when they need it, rather than them having to look for it.

Everything people need in one place

Key to the success of the intuitive campus is the application that sits in the centre and brings all the different functions and datasets together.

One university we spoke to for this project uses no fewer than 52 different apps to service its students. That means 52 different places students have to use to find what they need.

We must do better than that. And we can. With one central platform bringing together every service, students on an intuitive campus only ever have to go to one place to find what they're looking for.

Better than that: they don't even have to search for it.

Imagine a student has an exam one day. The app knows this. It also knows that student may want to pick up a coffee on their way to the exam room.

So the app could work out the best route, based on real-time traffic and other parameters, suggest the best place to stop for a drink – and perhaps even offer a promotional voucher.

Or let's say a student's lecture gets moved at the last minute. They'll get a notification informing them of this change, with directions to the new room, all within plenty of time to ensure they don't arrive late.

That's got to be better than a note scribbled on the classroom door!

21st-century communication for 21st-century students

The way we all interact with the world around us through technology has fundamentally changed. This is particularly true for young people arriving at universities across the UK.

As we mentioned earlier, people no longer want to search for the information they need. In our personal lives we're used to sites like Google and Amazon offering contextual suggestions personalised to our unique preferences. So why not replicate that in the student experience?

We can do that through the intuitive campus, taking data from multiple, previously disconnected sources and using it to serve students in bespoke, real-time way. A way that completely removes any effort or friction for them.
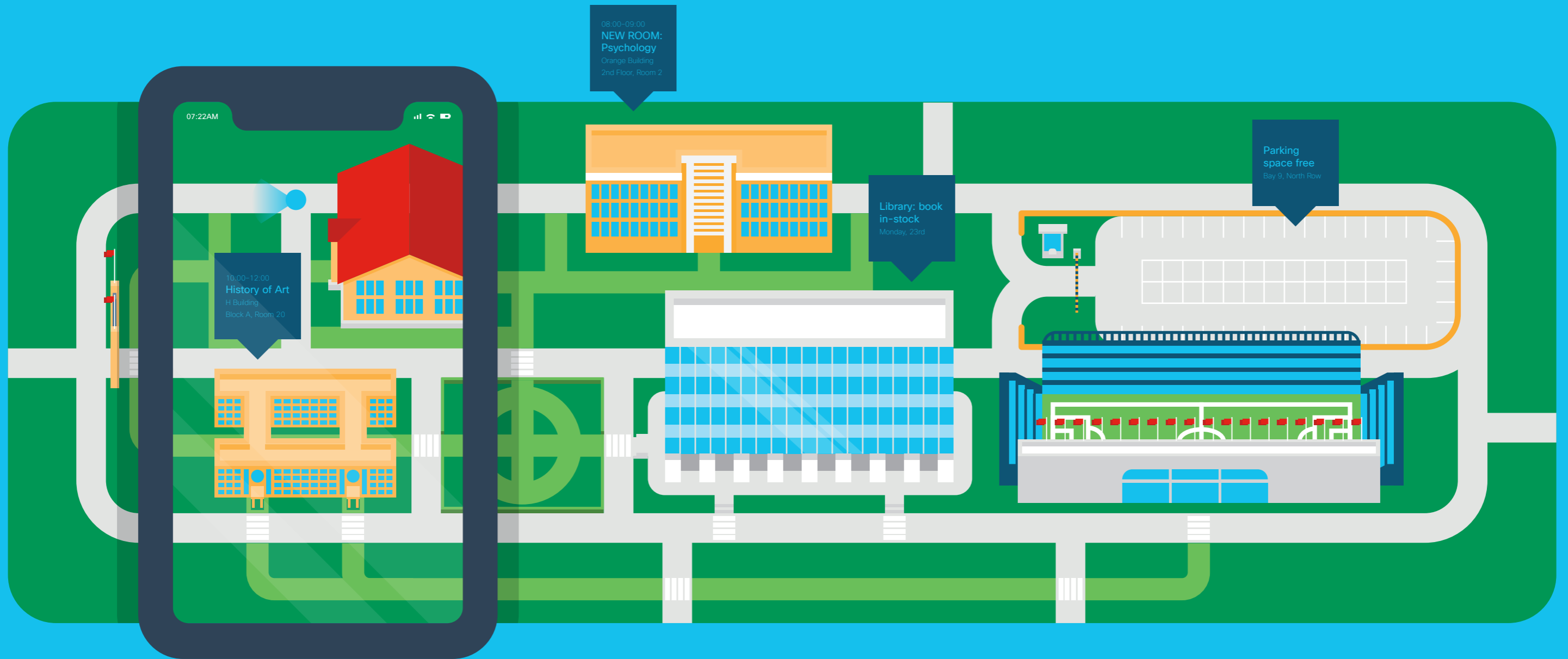
Let's say a student walking past the library as an overdue book they've forgotten to return. Their intuitive campus app would send them a nudge reminder to ensure they remember to return the book at just the right time.

Or perhaps they're looking for a quiet place to study. The app could tell them the library is currently busy but is likely to be much quieter in an hour's time, meaning they don't have to waste time and increase their stress levels searching for a place where they can concentrate on their work.

This kind of real-time contextual information can help universities attract prospective students, too. Imagine somebody with a passion for sport arriving to look around the campus – you could send them a notification as they pass the sports hall, inviting them to check out the facilities.

There are an almost infinite number of possibilities for the intuitive campus, all of which can help improve student and staff wellbeing while enhancing the reputation of the university.

08:00–09:00
NEW ROOM:
Psychology
Orange Building
2nd Floor, Room 2

Parking
space free
Bay 9, North Row

Library: book
in-stock
Monday, 23rd

07:22AM

10:00–12:00
History of Art
H Building
Block A, Room 20

Chapter 3:
Real-life applications

Living

- Getting to class on time, from room change updates to detailed directions

- Locating the things students need, from coffee shops to libraries and everything in between

- Ensuring students can access the right space, whether collaborating with classmates or focusing on a dissertation

- Supporting wellbeing and health, from real-time pollution level updates to pollen counts

- Offering positive nudges, from reminders when a library loan is overdue to information on what's happening around the campus

- Building inclusivity into technology, to ensure students disabilities can make the most of their time on campus too

- Joining a Webex, to watch lectures when students can't attend in person

- Offering a route master service, effectively giving people a dedicated Google Maps for their campus

- Providing security, to help everyone feel safer during their time at university

Education

- Attending class based on circumstance, for example, giving people the option of remote learning

- Enabling new ways of teaching and learning, with contextual data and personalised course material

- Flipping the concept of the classroom, so students can consume lectures before the session and then collaborate on what have they learnt in class

- Learning from a distance, to make all universities more accessible regardless of where someone lives

- Virtualising field trips, providing a low-cost option to enrich the learning experience

- Collaborating across the globe, empowering students to work seamlessly with people all over the world

- Improving capacity planning, showing how many people attend lectures and using predictive analytics to help people find the right space for their needs

Campus Economy

- Improving operating costs, by using real-time information to deploy resources more efficiently

- Refining building and facilities management systems, from smart cleaning to more efficient buildings

- Boosting enrolment, by having a reputation for providing a brilliant student experience

- Growing research capabilities, to become more globally competitive

- Using chatbots to interact with students, many of whom do not use social media to get update about their university

- Improving open days, by sending contextual nudges to prospective students

- Utilising space more effectively, to save millions of pounds in avoidable costs

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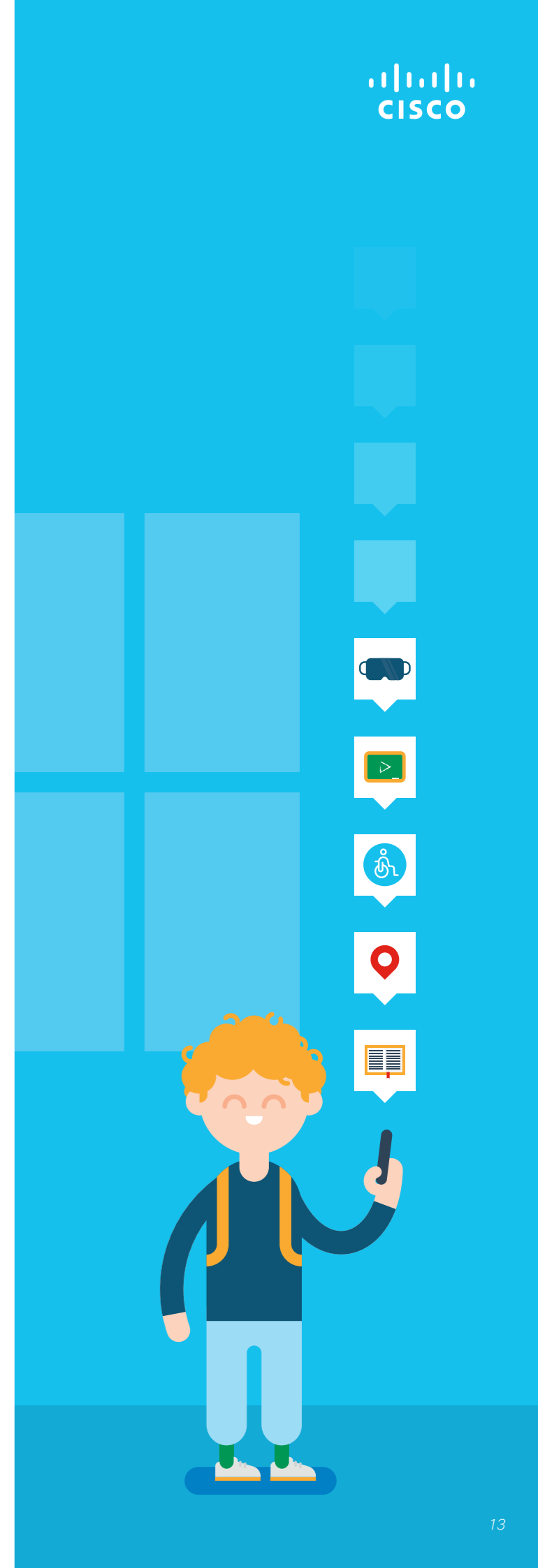
Conclusion

The intuitive campus is one that uses data and connected technology to deliver universal benefits in a much more human-centric way. And not just to students but also to staff, the universities themselves and, as a result, the UK economy as a whole.

This is our goal. And to make campuses truly intuitive and engaging we need to measure impact as well as action, using data to improve people's lives and prove that what we're doing is working. But this is not about technology: it's about people. Technology is just the enabler.

If you want to attract and retain more students, build a better environment for them and your staff and save millions of pounds in operating costs, get in touch with us so we can start creating your intuitive campus.

Let's build the future of higher education together.

Learn more: www.cisco.co.uk/education