JAMES: Hello, everybody. I feel horribly overdressed for a tech conference! I can only apologise. I have also just become a dad; I've got a three‑month‑old baby. Thank you very much. My memory is like a sieve so I will be reading from my notes, forgive me.

Scope are delighted to be a partner at TechShare Pro. I know we were here last year talking about the work we're doing on making accessible content for our website. This year, we're going to present to you some hot‑off‑the‑press research. My colleagues Craig and Anel will come up after me. I'm merely their hype man!

Scope, in case you don't know, we are a disability equality charity and we campaign for everyday equality for Britons, 14 million disabled people. We have already heard that one in five of us is disabled, a huge demographic. We campaign to both tackle the digital divide, so making sure more disabled people can get online and use technology, but also to tackle inequities and inequalities in consumer markets. We know that disabled people are historically ill served, not thought of and not considered by business, retailers and markets, despite this annual Purple Pound of £270 billion a year.

Some work we did five years ago in 2014, which feels like a lifetime, we conducted a piece of research called Extra Cost Commission, which found that three in four disabled people would leave a business because it wasn't accessible. There are similar stats from Click‑Away Pound, where disabled people click away from non‑accessible websites because the websites don't cater to them. The cost to business is around four hundred million per week. There is a huge market of disabled people, 14 million. There is huge potential spend that hasn't really been met by business or unlocked in any meaningful way, which I think leaves disabled people having to spend lots of money on products that don't always work for them, or denied access to markets all together. We know that insurance and energy are two markets where disabled people are often poorly served and not particularly well thought about. It leaves business in a place we think where there is this big untapped market. There is value to be had and customers to be reached and products to be sold, but only if these products and services are accessible and inclusive in the first place.

There's lots of good practice. Microsoft's Xbox controller, Uber, Wav, iPhone and there are a range of insurance products specifically tailored to disabled people. At Scope, we think there is much further to go. In the last session we heard about regulation. I think some regulation is beginning to catch up. We have the public sector accessibility regulations coming into force. We're seeing some regulators in essential markets beginning to recognise they do have powers already to enforce accessibility. So Ofgem, the energy regulator, is taking greater steps to improve accessibility of price comparison websites, for example. These are things that don't need legislation but they need regulators to be nudged and pushed and to be told they probably have powers already; they just need to think about them slightly differently.

I think most importantly for Scope, we're seeing lots more disabled people take up action and have their voice heard themselves. I think in a way that perhaps we haven't seen the Disability Discrimination Act in 1995 where the whole community came together and really pushed for that ground‑breaking legislation to be introduced. We are beginning to see that more and more on online accessibility and online legislation, too.

It is why we at Scope have launched The Big Hack programme. Many of you probably know Chrissie ‑‑ I said I wouldn't point her out ‑‑ but she is our tech digital inclusion guru. She runs our Big Hack programme. We would love you to be involved in it, which is about breaking down the barriers that disabled people face to buying and accessing technology, but also using things online as well. It is a real call to action for businesses to get involved and, crucially, to work with us at Scope and to work with the disabled community on coming up with solutions that can make a real difference. You can find out lots more on our website bighack.org. The Scope team are here all day to talk to you about it.

I think I'd now like to hand over to Anel and Craig and in the words of Jennifer Aniston: "Here comes the science bit." Anel and Craig, over to you. [Applause]

CRAIG: Thank you very much for inviting Scope to discuss the research work as part of this exciting Big Hack project we're working on. My name is Craig Moss; I'm the Research Manager within the Strategy Impact and Social Change Department. I lead the research team running an innovative programme of qualitative and quantitative work, including economic research, supporting policy and influencing work at Scope. The aim of this research work has been to provide us with information to prepare a compelling business case to persuade businesses to pursue inclusive design as part of a standard approach within their organisations.

As a sneak peek into the content, Scope will be making it available as part of its Big Hack programme, the following presentation is some insight into the research work. For those who are not aware, we will briefly introduce you to the benefits of inclusive design and the costs of inaccessible design to businesses and the wider society. We will then begin to unpick some of the issues raised by disabled people in our research and provide first‑hand and expert insight into simple steps to demystify the implementation of inclusive design, while offering practical support to businesses in the form of key pointers here and more support available from Scope's resources.

Inclusive design should be a key priority for businesses of all sizes. In a society where our differences are increasingly recognised and celebrated, not to mention in a society that is getting older, it is vital from both an economic and ethical perspective that businesses change. This shift in emphasis puts an onus on designers of products and services of complete and inclusive customer journeys but also on businesses, especially the inclusion of disabled people in their business strategies and subsequent planning from the earliest possible point in the design process. It has led to a greater sense of identification with disabled users and a breakdown of boundaries between disabled and non‑disabled consumers. Business leaders and designers have increasingly recognised that their customers occupy a common spectrum of abilities and aptitudes across various areas, rather than existing in two separate camps.

So inclusive design should matter to all. As I've said the logic for the business case is rooted in both economics and ethics and potentially legal aspects in the future as we were hearing from international presenters earlier, especially in Norway with the universal design approach.

Firstly, users will contribute to the market with various products and services although through an increasingly larger population and the disabled people's workforce. Secondly, customers have a duty to respond to a changing world. They must prevent their customers facing indirect discrimination from markets that isolate and exclude them. Markets can play a significant role in the cost of living to a disabled person and their household, from creating unnecessary extra costs and limitation on their spending. Unlocking this potential is a key component to accessing the untapped market of disabled people, a concept we will explore later in this presentation.

So, businesses need to improve their customer offer and to do so in design approach needs to be considered as standard as well as creating inclusive workplaces and importantly the accessibility of the complete customer journey, both physical and digital experiences. But who are these potential customers and why are they worth such careful consideration if your business is to successfully access its full customer base?

Disabled people are widely represented at all ages across every community across the UK society, from the north of the country to here in London. As depicted on the map on the slide of the UK, the prevalence of disabled people ranges from a quarter of people in the north‑east, to 13% of people in the capital, some 1.2 million people here in London alone.

Disabled people in the UK particularly those with mild to moderate disabilities comprise a greater proportion of the population than ever before. 13.3 million disabled people live in the UK but vast numbers of disabled people are excluded or under-represented from society or visible from society as the fantastic video at the start of the day clearly illustrated. With the 27 million plus households that make up the UK population, almost 11 million have at least one disabled person as a member, that equates to 40% of households in the UK.

As disabled people constitute increasing proportions of the population, disabled consumers demand greater and equal access to a range of products and services. The value of the purchasing power of the households with disabled people is well known, a concept introduced in 2012 called the Purple Pound. There are households with at least 1% of disabled persons. Since calculated, the Purple Pound has continued to grow, from £210 billion in 2013/14, the figure has risen steadily until now, according to Scope's recent calculations, the figure is a staggering £274 billion. I'm sure you will agree this is a big number. Businesses are asking themselves: Why, when, how can we tap into the promising market? To address the questions and to share some of

Scope's insights, I will pass you on to the lead researcher, working on the Big Hack case research projects, Anel.

[Applause]

ANEL: Thank you. Thank, Craig. Hi everyone, I'm Anel Touchet, the senior economist at Scope, helping to project manage the Big Hack research. The Purple Pound is important for businesses. It is a proxy for disabled people purchases power. It is so as members of the same households do share their income. Disabled people have the means to spend, however, it is something that businesses still need to respond to. In particular, we wanted to better understand the role of inclusive design in determining spending decisions.

So, we had two research questions, the first, I should press the button! The first how do households with disabled people spend? And the second question was, what is the role of inclusive design in determining spending decisions? So, we have used a mix of primary and secondary research to enter the questions. The first question, we partnered with a company called Trajector, specialising in research, data modelling and forecasting. We used their research using national data sets such as the living costs survey and the family resource survey to come up with average weekly spends for both households with disabled people and households with non-disabled people. So, this allowed us to make a comparison between the two groups. It allowed to us have a breakdown of average weekly spend by income brackets, type of impairment but most importantly by spending categories such as education, recreation, transport, et cetera. This is a quick illustration of the spending categories of households with at least one disabled person. This is as a proportion of income. This is interesting to see that personal transport such as cars, motor bikes, for example, account for the second item when it comes to ranking and public transport accounts for the last item of household with at least one disabled person's income. This is a particular feature of households with disabled people.

So, we then looked at the size of the spending differences between the two groups. As we see households with disabled people tend to overspend in term transport and personal care but they tend to underspend typically in education, public transport, and entertainment.

The rest of the presentation will mainly focus on the underspend categories as we try to figure out how inclusive design could somehow close the spending gap between the two groups or other words how inclusive design can boost spending for households with at least one disabled person. I will come to the link between the inclusive design and other spend towards the end of the presentation.

Spending decisions could be explained by a list of socio-economic factors, including income, age, even preferences. But for the sake of simplicity we chose disability and income. We did by computing the average weekly spend as a proportion of income and comparing between the two groups. When this was done, the next question was: What is the role of inclusive design in all of this? To answer the question, we partnered with Open Inclusion, that specialise in supporting businesses to come up with products and services that are inclusive for everyone. Together, we co-design a survey that was addressed to 243 disabled adults everywhere in the UK. The aim of the survey was to allow disabled people to tell us about their own experience of inclusive design and how it is impacting their spending decisions.

So, this is just to give you a quick presentation of the panel here. We can see that essentially the age distribution is following what we have seen in national data sets. It is representative of, you know, what you would find in the data sets such as the family survey, for example. Again, this is a breakdown by impairment types. Our respondents in the panel. Essentially, again, as expected, it is nationally representative, ability is the most common impairment, this is mainly driven by the older population. The impairment, to let you know, don't add up to 100 as respondents can have more than one impairment.

Now to the key findings ... so, when we asked the panel if they thought businesses were losing out because of inclusive design, three-quarters said "yes" that is 75% of respondents saying that businesses are losing out because of inclusive design. So that means that disabled people are confident about the impact this is having on businesses. This is one quote from one of the respondents, "I would like to spend more than I currently do but I can't as it is such a laborious task. If websites, apps and stores were accessible, I would spend more as I have no restrictions.”

The Purple Pound is worth a lot! The businesses don't seem to realise this and put the effort in to make the products and websites more accessible in order to benefit from the Purple Pound.

Another striking finding, half of respondents said that they resorted to not buying when facing online or offline accessibility issues. That's 50% of our respondents, giving up on spending because of accessibility issues. That should be worrying. This confirms again the first finding, that businesses are losing out because of accessibility issues.

Here, as part of the survey, we asked our respondents to share feedbacks about their digital experience. These are a few quotes we wanted to share with you: “If websites are not accessible, I will not buy from them. If they are not disability aware, I will not return to them.”

ANEL: There is an untapped market. If websites are more accessible more visually impaired people will spend money and companies will make more money.

CRAIG: “I really, really wanted to buy tickets to go to the football for the big match. The timeout clock on the website kept finishing before I did. It was too hard. I ended up not going.”

ANEL: So, as we mentioned before, inclusive design, it applies to both offline and online platforms. It is important to recognise the interaction between the two platforms.

As part of the survey we asked the respondents which of the spending categories were associated with poor personal experience. So here the respondents could select multiple options. When it comes to in-person experience, transport, private or public, often come up. Again, here are feedbacks about offline experience.

CRAIG: “Currently I live in a village outside of the major town, the buses are like hen's teeth, that means there are none. I love to spend more money on the train but I can only ever travel in one direction, at the station there is no way over to the other platform apart from the stairs and a bridge!”

ANEL: “We went to a captioned film without the captions, so I had to leave.”

CRAIG: “I wanted to order an item from Sports Direct. But the website was no, sir accessible to the screen reader. The buttons were not labelled. I found the app to be worse. I could not select a category this time around to select my product. I had to go the store; it was a hassle as blind person. When I got there, I was told that the product was out of stock, I should order online! I explained the issues with the website and the app but they said that there was nothing that they could do about it.”

ANEL: Here against, the experiences are a perfect example of the interaction between the online and offline platforms, they go in pairs. So better inclusive design is not just about better accessibility online.

The next phase for us was to look more closely at the underspend categories, essentially trying to find out how better inclusive design could change the direction of things.

The first bullet point here is just a reminder, actually on the slide now, yes, it is the first bullet point, a reminder of what we saw before. The fact that households with at least one disabled person spends 6 5% less on education. From the survey we know that 33% of respondents said that they would like to spend more on education but they are prevented from doing so because of accessibility issues. Here education includes school fees, university fees but also online training, conference, et cetera.

That is another quote: "If I was assured that the learning resources was truly accessible, I would be more likely to partake in extra education."

Again, public transport was next on the spend category with households with disabled people spending 31% less as a proportion of ... From the survey we know that 22% of respondents said that they would spend more on public transport but they are currently prevented from doing so because of accessibility issues.

CRAIG: “My worst experiences with accessibility have been on public transport. It is the most important thing to someone with a disability. I would be happier to spend money on it if it were more accessible.”

ANEL: Finally, 67% of households do spend -- sorry, 67% of respondents said that they would like to spend more on entertainment but are prevented from doing so because, again, of accessibility issues.

CRAIG: "I want to book wheelchair spaces for EVERYTHING online, cinema, theatre, train and taxi, everything. I want to be able to book online easily, not on the phone, not over email over several weeks, with a phone call later. I want it all to be bookable online and easy."

ANEL: "I would spend much more on entertainment if cinemas and theatres had more audio description and Touch Tours. If Amazon and Netflix had better info about where audio description was available."

I particularly like this stat because it reveals that there is a strong demand from disabled people for entertainment. Yes, disabled people are willing to spend much more on entertainment, to go out and have fun, like anyone else. They are also able to do so, like we have seen with the Purple Pound, and that very often goes against what people or the way that people tend to think about disabled people.

A good chunk of poor accessibility testimonies we have received were regarding entertainment.

So, let's summarise what we just discussed today. Unlocking the Purple Pound potential demands a solid understanding of the common patterns preventing disabled people from spending. So here, I came up with an illustration of common spending patterns using testimonies collected from the survey. Let's use a hypothetical case where I'm disabled and I'm trying to buy a pair of shoes, for example. Assuming we are starting with the capacity to spend, that's the Purple Pound. And then assuming I go to a shop or a store, so that's the in‑person experience. Typically, from the survey we collected, the typical issue would include physical access, the store environment, even the payment method. So, in person, the experience is very often described as very frustrating.

If I decide to have a go at the online services, unfortunately here again it comes with a list of accessibility issues. That's the online platform here. Typically, issues would include problems with navigation, a lack of product descriptions or even wrong colour font. A way to resolve this would be to call customer service. Here again the service is not designed inclusively. Often disabled people reported inflexible and complicated experiences. The key point here is that it is now becoming a sort of vicious cycle that is preventing disabled people from spending the money that they have.

Again, it reveals the interaction that currently exists between online and offline platforms. At this point, this is what would happen if the issues are not addressed, these two options, either exiting so deciding not to spend, or facing extra costs of disability. By extra costs of disability, I mean costs that are imposed on the disabled people that are directly linked to the condition or impairment. This is often triggered by a lack of supply of products in the market, putting an upward pressure on prices, but it could also be triggered by websites that are not making clear price comparisons, for example, that would prevent disabled people from striking the best deals or having access to the best information. So, they are both exiting and the extra costs, they are essentially two symptoms of dysfunctional markets.

What we want to know here is how we then can address those in simple steps. Again, we need to understand the implication from both parts. So, to disabled people, we know that half of the respondents said that they gave up on spending because of accessibility issues. So that actually prevents disabled people from spending money on what they want or what they need. The extra costs cause a diversion to other products and services that they need to pay for. They want to spend the money the way they want and not the way the market imposes on them.

To businesses, on the supply side of the equation, extra costs imposed on disabled consumers represent missed opportunities. I often use the example of specialised bikes for children with disability or electrical wheelchair costing in the thousands of pounds. This is inefficient simply because only a few consumers would be willing or even able to put so much money into just one item. Most people would just decide not to face this cost and not to spend. Essentially here, profit could be maximised if small and simple accessibility issues were addressed. It doesn't have to be rocket science. Better inclusive design is not out of reach; that's the key message here. More importantly, it is not a barrier to creativity.

So, Craig actually will now talk you through a few easy fixes that we collected from the survey and to help us to visualise how better inclusive design can look.

CRAIG: Probably the most well‑known issues yet still frequently not addressed are physical aspects of the store or the venue, prohibitive routes, multiple steps or lack of or broken lifts can prevent disabled people from visiting or having a satisfactory customer experience. Restrictive paying experiences can stop or turn people away at the key transaction stage. Disabled people we consulted also suggested that the in‑person environment could be adjusted to support the needs of all people, noise and light levels for example, to help those with sensory sensitivities, or through provision of support such as accessible zones as breakout spaces, even providing accessible shopping sessions or events to act as regular accessible features in a venue's calendar. Shopper guides can also help customers select and choose items or services. Training can be provided to educate in attitudes and flexibility of staff when supporting disabled customers and their families.

The telephone route: The channel to which disabled people are frequently pushed towards, often fails in many simple ways. Phone navigation can be complicated with voice control menus and different key sequences or over complicated menu structures. Staff training and customer approach can really help improve people's experiences. Two‑way communication is key, such as clear presentation of language, patience with responses to ensure understanding, and repeating information, if necessary.

And also providing support and training for staff for accessible services such as text relay calls. Add flexibility to your business and empower your staff. Support and train them to divert from the script. For example, addressing obvious frustrations like not allowing online offers to be available over the telephone as quoted by one of our research participants earlier.

Finally, when developing digital channels, any text or information on a website is written clearly, in clear language and font with appropriate colour contrast. Navigation can be made a lot easier too by enabling the option to tab between screens, providing larger and clearer buttons and alternatives to dragging and dropping such as when moving items from shopping baskets, for example. Furthermore, disabled people always raise issues of the lack of alternative text provided with images, such as those to support understanding of site content and shopping choices. All images involved in security such as Captcha which often stops disabled people from entering the site to begin their customer journey. Include subtitled videos or signed videos, which is very easy and usually free to produce. For example, you would be surprised by how many MP promotional videos do not have captions, as highlighted by campaigners raising awareness of No Captions, No Vote! That's all parties, I might say!

Finally, website timeout protocols continue to play and are a frequent frustration. Please remove time limits or simply provide options for the user to extend them. This is by no means an exhaustive list and there are many more simple examples clearly laid out within Scope's new Big Hack resources now available online.

So, please follow us on Twitter at ScopeBigHack and check out the resources we are making available to businesses, disabled people and the businesses that support them. Sign up to The Big Hack newsletter and knowledge sharing programme, we will share everything we have found with you. There's currently a comprehensive and growing resource hub available there and then we'll be creating access to the business case research that we've been presenting, an initial preview here, and an exciting interactive reporting tool hopefully, and analytical information. We welcome feedback on everything that is available. It is a resource for everyone here to tap into.

The Big Hack resources have been developed to improve the way we are informed by disabled customers. Why wait to be hit with sticks basically when you can have as many carrots as you like, basically! We want to inspire the other organisations to implement inclusive design and promote its benefits to business and fellow businesses. and to achieve best possible outcomes for a complete and inclusive customer journey and everyday equality in technology. Thank you.

[Applause]

MARK: I have a couple of questions here. Thanks, that was fantastic. The most popular one is: Where can we find the numbers? Are you going to publish the research?

ANEL: Yes.

CRAIG: We are looking at how best to present them at the moment. Do sign up at our website.

MARK: Another one about the international nature because we've been hearing about that earlier. Do you have some plans to work on any research outside of the UK? I don't know whether any knows of any research like this anywhere. Clearly, it is a UK‑specific picture. Do you have connections to present a more global picture?

CRAIG: I heard yesterday that we may be working with a partner called Purple Network ‑‑ what are they called, those guys? They are just called Purple! Nice theme there. It is about 20,000 people across the world and they are people in work age, 16 to 64.

MARK: Cool, thank you. There is a little competition going on in Slido between who can come up with the best Bowie reference. Ground Control said: What industries or research constituents find the best to use? That would be revealing.

CRAIG: You would have to come to our website!

ANEL: Ha‑ha!

MARK: There is an answer.

CRAIG: There are lots of businesses mentioned on there.

MARK: Within the detail?

CRAIG: Yes.

MARK: The other question about accessing the research, I was thinking about what you're intending to do next. Is this a stepping stone to further and deeper research based on what you are finding out?

CRAIG: Absolutely.

ANEL: Definitely. So today was just a teaser, really. There are a lot more numbers and analysis that we have done and that is available on the website. Essentially a focus for us is that we have a strong public policy and public affairs team and we try to have a sense of prioritisation. So, what we'd like to do is to know which sectors, for example, are the worst at inclusive design and we would like to focus on them. We would like to have more in‑depth analysis by sectors but also, ideally, to be able to come up the kind of profit/loss by day or hours to businesses in the UK. It would take more time and resources, but that's the aim.