This is a raw transcript of the Flagship Urban Solutions session on Intense Cities of the World Cities Summit, held at Marina Bay Sands, Singapore, on 3 July 2012. The panel comprised:

- **Peter HALL**– MODERATOR
  Bartlett Professor of Planning and Regeneration, University College London

- **James CLOSE**
  Partner, Sustainability & Cleantech Services, Ernst & Young

- **Peter HOLLAND**
  Director, Urbis Pty Ltd, ULI Australia Chairman

- **NG Lang**
  CEO, Urban Redevelopment Authority

- **Marilyn Jordan TAYLOR**
  Dean and Paley Professor, University of Pennsylvania School of Design

- **Anthony G.O. YEH**
  Chair Professor and Head, Department of Urban Planning and Design, The University of Hong Kong

[Start of Transcript]

Sir Hall: "Thank you very much and welcome to this parallel session. I'm going to start by introducing my fellow panel members. As you see them from left to right and I am not going read out their very considerable CVs because, although that would be interesting, that would take valuable time away from our discussion. So first of all, Marilyn Taylor, Dean of School of Design at University of Pennsylvania and a resident of New York City and very frequent visitor to Singapore. We've been fellow members involved in the Lee Kuan Yew Prize. To Marilyn's right, someone I'm sure you from Singapore all know and that's Ng Lang, the CEO of the URA, Urban Redevelopment Authority, a very important agency indeed here in Singapore and then to his right, Anthony Yeh, a colleague and friend from the University of Hongkong. I'm very pleased to see you here, Anthony. He's head of Department of the Urban Planning and Design Department at the University of Hongkong. And then switching to the right again, we have Peter Holland, the director of the international property economics, Urbis, and chair of the ULI Australian National Council and the most important fact about him today is Peter is from Melbourne, he'll be talking from a Melbourne perspective. And finally on the extreme right a fellow Londoner James Close, partner in Sustainability and Cleantech Services from Ernst and Young based in London. Now, the format will follow familiar lines.

Each of us is going to say a few words and I think in most cases accompanied by a PowerPoint, shouting out idea by what we mean by intensity. I'll start without a PowerPoint, which I don't think I'm expected to do as moderator but I will say this word. I think intensity is all about human interaction. It's about you and me and everyone in this room and how we relate the frequency and above all the intensity of our exchanges, especially our brain exchanges often verbal. And this quality is best summed up in a word which Marilyn, we discovered a few minutes ago, we were both going to use, which is 'buzz'. Great cities and great parts of great cities, which have a unique quality which you don't find in lesser cities and places and I think you don't find except rarely in the open countryside which is why people essentially come to cities to live and to work. It's all about these human exchanges which may then result in something special happening, which is essentially innovation and creativity those words which so obsesses in the urban trade nowadays.

And one last point from me, I don't believe that this equates in any simple way with density. It may equate with density and some of the world's densest cities like Singapore and Hongkong undoubtedly have those qualities. But buzz is a phenomenon that you find in many different kinds of city and in many different urban forms. To quote only the most obvious example, Los Angeles, a city I personally regarded as one of the most intense in the world and one to which I actually devoted two chapters in the book which our MC was kind enough to refer to. LA is an incredibly intense city, intense high buzz city and yet as we all know, it's well, it's a low-density city. Some observers now are crunching the numbers say it's not a low density as we think but certainly it does not correspondent to the archetype of a high density city but it's undoubtedly a high intensity city. So that's my very short take and that's enough for me and I'm just going to call now on Marilyn to come to the podium to introduce the first of the short presentations. Marilyn.

Prof Taylor: "We didn't get our technology training so, oh, there it is, indeed have faith and the images will come. I have a really incredible privilege of following Peter here and to set the stage a little bit for our conversation this afternoon in my remarks. I have to say that one of the great gifts of coming frequently to Singapore is that I often see Peter here and it seems if anything his observations, his words and his writings and his conversations get better and better with time. So Peter, it's a privilege to be here. As we set about to prepare for this afternoon, we all looked briefly at the brief which says that in discussing the subject of intense cities we are going to consider or should consider programme and mixed uses, high rise compact, sustainable forms and development, building communities and infrastructure and investment. In other words, the whole panoply of things that come together to make truly successful cities and at the same time, the structure of the afternoon that we should focus on different separable pieces, if you will, of what make cities special and we got the draw here in this room to discuss intense city, not dense city but intense city.

What is an intense city? So I gave some thoughts to it thinking about cities that feel intense to me, that gives me the impression, the sense of being in a place that is intense and I came up with six characteristics that I would like to share briefly with you. And then I'm going to talk a bit as we were asked to do about one project in my town, New York City. You've heard a lot about New York City during the course of this meeting so I'm picking one and only one thing as an example of what makes a place within a city intense.

My assertion will be that a whole city cannot be intense, that intensity can only exist in relationship to its opposite and that there are characteristics that we know when we experience them that tell us that we are in place of intensity and a place that we will enjoy. The first of these characteristics for me is age - the layers of time, the experience, the contrast and the place itself. So for example, Berlin is a wonderful example of a city of intense places. It's an old city with a very young population so contrast can also bring out a sense of intensity and here we see other examples of this. The brightness of the lights, excuse me for a minutes, really hitting on the screen. Can you all see the images well back there or are they a bit washed out? They are pretty washed out I think so I'm going to keep going but maybe in the course of this presentation, we might lower these lights just for a moment so we can see it.

So on the left hand side on this slide, you see what city? New York. When? At the very beginning of the 20th century. So the age, the density of population, the number of interactions on the Lower East Side really were an indicator of an incredible vibrant economic opportunity and that's what exactly you see in Shanghai at the beginning of the 21st century, people out in the streets being very visible. Being in a place of age and wan that acquires patina so here's another example, Havana, the framework of the old city, the cars of mid-century and the excitement of a new young population coming into existence. So age and patina for me is something to with intense city.

The next is arts and culture. Most of the places that we think of as intense express a culture and sometimes it is arts. There are values being expressed there, maybe some more about fun, more about seriousness, some about art about the doorway to understanding the cultures that we're in. So we have the expressions of political culture that can create a sense of intense city. We have monuments and works of architecture that make for intense places, for an intense experience of being there. In wonderful cities like Barcelona, we actually have the art of building that tells you someone invested greatly in a place and is using architecture and the city to express qualities of life. And of course, we also have an art culture, the constant presence of entertainment whether it's in a subway car or in all aspects of our lives. And so it does seem to me that the combination of arts and culture at of its high to low manifestation is a part of intense city. So is using your senses, you cannot just watch an intense place. So we have the wonderful millennium fountain in Chicago where is the sound of water, the spray in the air, the giggle of voices, the rush of activity when the water spouts out of the mouth in the art work and it seems to me that needing to bring your senses to bear, not just your rational view of life is one of the ways that you know you're in an intense place in an intense city.

But it's more than that too. It's somehow is the combination of individual initiative - building a business, getting a job, doing your job well, working at a level of commitment and then sharing that in a greater sense of responsibility that is important to the intense places in our lives. So here we have the new phenomenon, everyone in his own shell of its own iPhone, iPads, smartphone, waiting for the train but already at work, already at work in the morning because we know that we need jobs to drive our lives. At the same time, there is the experience of going together. In this instance, a group of students going to the Kidron Valley, a very contested area in Israel where only if people hold together will they solve the problem of both water and sensibility. So there is a seriousness of intense cities that brings out a commitment to each other that we are going to make life better and clearly one that Peter and I had the chance to experience this year Khayelitsha just out of

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Cape Town. I see Michael Krauser here. It was a wonderful presentation, Michael, about it in a place lacking complete of the public realm. People, like those you see on the right, came out of the homes they are living in an formal settlement and together build, properly use and make safe the community centres that pull their community together. This is indeed a place of intensity and a very special one indeed.

Intense places have their temporality. Just as they have to have the opposite non-intensity, to exist, their intensity changes across time, across a day, across a season, across the calendar, across the years. Examples of these of course the night, how fantastic it is, how you feel you're in a place of importance and intensity when the night comes on and the lights come up and the darkness is the balance to all those lights or when you are out in the clubs. There are so many places in our city where the clubs themselves are an indicator of one of places of intensity, sometimes a little too much. We are assaulted with the brands and the trends of our lives. I never wanted to be forever 21 but apparently a lot of people do here in Tokyo and there is an intensity about this getting out there and reacting to everything that too much consumerism that the world is offering us now. And yet there's also the temporality of tradition, Osaka in the fall, markets as the harvest comes in across many cultures. These two I believe are one of the sources of intense city that gives a sense of interaction and reality to our lives. All of which adds together to this sense of buzz.

When you're in an intense place, you know you're there. You can feel it. I will leave it to others on the panel to decide whether it can be measured but I will stick to my definition, which is, you know it.   When you feel the intensity, you know you're in an intense place. Just quickly touching on New York and one example of a relatively high energy city but where there are places that are insertions that because of time, temporality and all those things we bring together actually becomes very intense and that I want to talk about is the high line. This is a picture from about 1935 when the Manhattan Bridge was just going into place and I bring it out because it evokes a time where the high line actually began, when there was tremendous pier activity along all piers of the Hudson River on the west side of New York. You see them stretching out in the picture there. And this was a time when New Yorkers had a dream and intensity had to do with operating at many levels on all different kinds of transportation, multiple ways of getting together and interacting as you see in this wonderful lithograph from 1911.

Here's what it is now, two miles of an old industrial road. When all the piers existed on the Hudson River, the activity of people walking on the streets was in conflict with the delivery of goods by horse-drawn carts and therefore the industry owners in the neighbourhood came together and they build a railroad up in the air 22 feet above called the High Line which moved from the pier areas to the various loft and factories that existed on the Upper West Side. Well, needless to say it fell into disrepair over the years and has come back to life in a project you have all heard about, one and a half mile walk, 22 feet in the air, usually only about 22 feet wide in which people can be mobile, you see they are here or in which they can sit and watch each other, the people they are with or the city all around them and it becomes this weaving line that ties together not a dense place, in fact this is site where Whitney Museum is going to go, not a high rise office building and yet it is a place that so defines itself as a place to be that it has brought magic to this part of the city. An old element made new, given a temporality of night and day, a

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shared responsibility to make it happen, a few people came together and said, we want to stand against the mayor, we don't want to see the High Line demolished, we want to make it our place. And so for me, this is a great example of an intense place in a generally intense city and something that really is hallmark of why we enjoy coming together and being as we often are in cities, the place where we reveal our best selves. So thank you very much for the opportunity to come."

Sir Hall: "Marilyn, thank you very much for a very inspiring presentation. The technology is working brilliant, yeah the shouting over time to Marilyn who's valiantly vacated the podium. I just wonder I think it's stating the impossible, if the technicians could get these two screens we're seeing here to show what's on the screen rather than the two sides screens. It would greatly help interaction on the platform but it maybe beyond the way the stuff is hooked up. In any case, let us now go on to our next presentation, our local speaker, Ng Lang. Would you like to come to platform now? Sorry, Anthony, you're coming next. It's my fault, I'm terribly sorry."

Dr Yeh: "Thank you, Sir Peter. I think this is my honour to be over here. By the definition of a city, its activity should be intense. Otherwise, the city should have a big problem. Hongkong being a high-density city, we are talking about a very high intense city over here and so today, what I'm going to talk about in terms of how we manage this high density and high intensity cities. When you look into the Hongkong, actually Hongkong although we do have 1100 square kilometres but actually we only occupy 30 per cent of the area. It's mainly because of the terrain and because of historic reasons, and because of that we actually do a lot of land reclamations in the past because we do not have enough land and there are concentrated near the main urban area. And because of this you can see the density of Hongkong is very high and we are talking about overall density is around 6400 persons per square kilometres. But when we go down into different scales up to real city core itself, it can be as high 300,000 to 400,000 per person per square kilometres so you can see the intensity and the high density we are talking about. I think there is really no comparison in other places.

Then when we talk about population growth in Hongkong, roughly we are having one million people per 10 years. This is roughly the type of population growth and fortunately enough, we are able to maintain this type of growth and in the projections and in the future, it is something like we have a population of 8.5 million by 2036. Then how are we going to plan for all these? So we did a lot of planning, we have Hongkong 2030, which is basically sort of like strategic plan for Hongkong trying to meet housing land requirement, economic land requirement as well as its infrastructure development. So in the plan itself basically it's still using our original plan, using real based and also using, trying to conserve land, trying to be basically having a compact development. Now this is the plan for Hongkong for the next 20 years or so but even that we still have to search our soul, where can we find our land supply? And actually this year, we carry out public consultancy studies about how are we going to get the land supply and we call land supply strategies through land reclamation, which is the traditional way, redevelopment, land consumption, sorry, land resumption, resuming of land, walk haven development, the use of ex-quarry sites. You can see over here anything that you can think of is there except for the elder space. So this is the problem with Hongkong.

So even if we can do that, we still need to have our high density development because of the scarcity of land and there are also a lot of advantages for example by having high density, you can save land, you can shorten the travel distance, you can support mass transit system like the work Peter Newman and Ken Murphy that was done in 1996. But there is also a lot of disadvantages associated with high-density development, particularly about social pathology and about crowding. So over here, it stopped working, sorry, okay, when we talk about high density, one of the major problems is crowding and this is some sort of things that we want to avoid. In a lot of studies in the 60s about high density, there is already a conclusion saying that there is no direct relationship between social pathology and high density and crowding basically is a psychological feeling and the culture itself for example, China's culture can tolerate high density and it's a very complicated issue about crowdiness and the environment. I'm not going to dwell on this, otherwise I will spend over time but you can see it's a very complicated thing - from your own type of room to the building to the neighbouhood, et cetera, et cetera. And the feeling of crowdiness can be somehow emolliated by, through good design and layer of buildings by making people move more quickly and also have a clean and well managed living and workable, working environment and also the related to the cultural and social economic background, the habit of the people and Hongkong has been quite successful in the last few years or the last 30 years or so in managing its crowdiness.

Now, let's look at here. Is this high density? This is somewhere in Morocco, right? How about here? This is Hongkong, it's high density. So you can see the density here is much higher than that but we are able still to manage it and people when they travel to Hongkong, they do not feel it. Some of the measures in Hongkong in reducing crowdiness, so what have we done? One of the very most important thing is that we do have a transport policy. Starting in 1979 we have this long-term policy in trying make use of public transport rather than private cars and also in public transport we are going to have rail-based development. All sorts of studies are going on and the other thing is that we also use transit-oriented development to maximize the use of transport-led development so that in this type of transit stations, we have a lot of intensity, in terms of development with shops, offices, et cetera to maximize this transit development. And also we have a lot of transport management policies. For those who are interested, this is a book that we have edited in 1993 about keep a city moving. There are transport policies, including demand management. Not only you need to have public transport, you need to cut down the number of cars through for example carbon emission system. What China is experiencing is basically there are just too many cars. And also, how do you separate people from cars? And in Hongkong and in CBD we have a very extensive flyover system, pedestrian flyover system that people do not have to have conflict with cars so they can walk from one building to another building without touching the ground.

And also we can create limited space with the creation of space from limited space. This is something I think the Chinese landscape architect is very good at and we are basically using him. For example, we have a multiple use of land so we can have a rooftop garden on top of car park and also we can convert a road in the CBD in the weekend to have some sort of public open space and also in some buildings, like the Hongkong–Shanghai Bank, we can convert this private space into public space and also we can have high quality space so that people can have a better shared space. Also this is a landmark building but inside it you can see we have a nice privately owned public space, which is one of the very

important research that is now being carried out in many places about this so-called props. And the other thing is that through this large-scale housing estate development, with community facilities and space. This is for example, this is over 20,000 people with these housing estates, this is like a city itself in some places. So you can see the car parks as well as some amenities areas and also some shops. This is all well self-sustained and through housing management and education, for example, you cannot throw things onto the streets and the dangers of falling objects. Though public education, we are able to make this place better. But this high density is not without its bad effects.

Recently in the last five years or so, we are talking about the wall effect so you can see here there's a big wall. This is an extreme case of high-density development. It actually has poor air ventilation, creating heat island effect and also poor air quality and pollution, without good sunlight. And so what is needed is some sort of, sorry, it's not working again, so what happens? No, it's not working, can someone help me a little bit. It's the wall effect. Okay, so what we need is basically air ventilation assessment and so this is the thing that we need. And also in year 2009, we embarked some sort of building design to foster a quality and sustainable built environment. We are concerned about this high density, particularly about building density itself. So one of the proposals is basically having the buildings to have better setbacks so that you can somehow have a better distance from one building to another building. And so this is the type of things that we have done to manage this high intensity, high-density cities. And from the experience in Hongkong, this is not going, we will find that high density living environment is more demanding than low-density living environment in terms of management. A small planning and management area will affect a lot of people obviously because of the high intensity. A good urban environment cannot totally rely on good planning. We cannot blame everything on the planner. So it needs good management and public educations and better planning design and management can reduce the negative impacts of high density living and for those of you who would like to find out more, this is a recent book that we published with Dr Belinda Yuen from NUS about high-rise living in Asian cities and by Springer and you can check it out in Google. Thank you very much."

Sir Hall: "Anthony, thank you very much, not least for keeping so splendidly the time. As the referee, I'm calculating that with injury time to your PowerPoint, exactly on time at this point. Now, there is a minor low-density logistical shift. Since unfortunately the organisers can't get these monitors here to show what's on the screen, it's suggested that if you prefer, you can transfer to these splendid reserve seats at the front, see the presentations to come and then come up to the platform as you have. Thank you very much and our emcee will then take over as I also retreat down into the audience and present the remaining speakers whereupon at the end we'll come back to the platform, thank you."

MC: "Thank you, Sir Peter Hall. Now I would like to invite Mr Ng Lang up on stage to share with us his views on urban intensity from Singapore's perspective. Mr Ng, please."

Mr Ng: "I have to first confess that I started preparing this draft with a very different understanding of what intense city. In my mind, this is our ability as a city to manage high density, to make Singapore and attractive city to attract people, capital and ideas and at the same time, offer an inclusive environment for our people to develop and achieve their

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aspirations. I think I've heard this many times in the last two days Singapore is really a very small city-state and coping with high-density living is for us not a choice but a necessity. In 1965, this is how Singapore looked like, the population then was I think 1.9 million people and then we were beset with issues of unemployment, squatter colonies, overcrowding in the city and shortage of basic utilities and housing. And I think it was then we found out for ourselves how high density living can go wrong when it's badly managed. Within less than 50 years, this is how Singapore looked like now. Our population density has grown by two and a half times but through good governance and planning we have managed to leverage on the higher density to produce a very different outcome today. Well, Singapore is one of the most competitive economies in the world. Our GDP has grown almost 100 times since 1965. We are well connected to the world and we are relevant to the world. We are a major financial centre and trading hub and we are one of the world's largest air travel hub and our manufacturing base is large and diverse and we have plans to make Singapore a major learning and R&D centre. And in my mind, this is what an intense city is.

Above all this, I think we have managed to attain a very respectable standing as one of Asia's most liveable and greenest cities and Siemens and the EIU has ranked Singapore top in our Asian Green City index and Mercer has recently ranked us the top Asian cities in its quality of life report. We have made this decision by adopting a disciplined and pragmatic approach to sustainable growth. When Marilyn told me what she is going to say, I say I'm going to give her very boring version and conservative version and I think it's through policies and urban planning that paid attention to economic, social and environment outcomes and not growth at all costs that we have in a way, we have been practicing sustainable development from the early days way beyond the term sustainable development became fashionable. And our first priority as a city is to provide a safe and liveable environment where the population can aspire to have decent jobs, good housing and clean and green environment and we do this by paying attention to the fundamentals, such as good governance and rule of law, embracing an open economy and racial diversity, creating good air and sea connectivity to the world, providing good housing and building good schools and universities to train a skilled workforce.

And here in Singapore, we manage diversity by managing liveability. And what this meant for us is to find innovative and holistic long-term solutions to overcome the severe constraints of land and resource scarce island. So we do not have a hinterland to provide respite from the city, no, sorry. Being land scarce, we do not have much land so we have to plan our land use judiciously to meet multiple needs and adopt a high rise compact city model to optimize the use of land. We do not have a hinterland to provide respite from the city and so we have to integrate greenery deeply into our cityscape. Unlike many cities who grew at the expense of greenery and nature, the greenery cover over our city actually grew despite the growth in population and economic activities for the past 20 years. We do not have enough water so we have to use extensive space for water catchment. At the moment, two thirds of our land surface is used as water catchment and the intention is to increase it to 90 per cent.

Heritage has an important role in finding the depth of any society, including ours and so we are a young nation that needs to develop quickly to find a place in the world, we want to do so without destroying our identity. So despite being land scarce, we protest land to

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conserve some of our natural and built heritage to instill a sense of home and belonging. The work to make Singapore a successful and intense city is a never ending one and the paradox of success is success often creates more problem. And out future success here in Singapore depends on our continual ability to offer attractive, liveable environment with economic opportunities to attract people, ideas and capital. And the challenge we have to do so now in in an urban environment that is getting increasingly complex and these are some questions that we will need to address in Singapore going forward. How do we continue to maintain Singapore's position as an economic hub in an uncertain global environment? How do we continue to grow and maintain a liveable environment and inclusive growth? How do we cope with changing demography associated with ageing population and low birth rates? And how do we respond to climate change resource scarcity?

What is clear for us well, these are all very difficult questions to answer and what is clear for us is we still need to pay attention the basic fundamentals that we have made to make Singapore liveable and attractive and maintaining our economic competitiveness is key and we are doing so through continual efforts to restructure our economy and move up the value chain. Tied to this is the need to upgrade our capability and the skills of our workforce and we are investing a lot more in R&D and we are building right now our fourth university and there are talks on planning and building a fifth one. As the population grows, we are also accelerating our infrastructure provision to maintain our liveability and we are doing so by expanding our rail transit network by 100 percent in the next 10 years. It's a 140-kilometre in 2008 that we are trying 280 kilometers in the year 2020. Our intention is also to further transform our living space by transforming Singapore into a city in a garden and right now, I would say some of the most exciting ideas in the greening of the urban environment happening right now in Singapore. We have just launched the Gardens by the Bay last week and elsewhere in the city we are building greenery a lot closer to homes through an extensive network of park connectors, through our efforts to integrate water and greenery and through our efforts to increase the integration of vertical greenery into our buildings.

Above all these, we are continuing to think and innovate for the long term and to look beyond incremental solutions. In areas like tackling climate change, we have decided to face the challenges head on instead of the taking the easy way out, we have embarked on our effort to reduce business as usual greenhouse gas emission by seven to 11 per cent by 2020 and we are further committed to increasing the target to 16 per cent should there be a legally binding global agreement. There are right now many exciting new ideas that are being test-bedded in new precincts in Singapore such as the Marina Bay that we are now Jurong Lake district and Punggol Eco Town. If you have a chance to make site visits to these places, I would strongly encourage you to do so. In these precincts, we are setting higher benchmarks than ever to make them more liveable, more inclusive and more carbon free and this is done through better urban planning, better architectural design, better technology, better public spaces and community involvement.

Marina Bay where we are here now is an example of a place that is designed to be a lot more intense than anywhere else in Singapore and here we are doing so by planning for better mixed use, by bringing residents commerce and entertainment all in once place. We are doing so by paying attention to good urban design and good architectural design.

And we are doing so by investing in good public spaces such as the Water Promenade here and Gardens by the Bay that we launched last week. And we are doing so by making efforts in place making and making the community involved in the place. This is indeed a very exciting time for city planners in Singapore and the work that we are doing in these areas are creating immense opportunities to use Singapore as a living laboratory to develop and testbed new ideas. We are already seeing an increasing number of companies and research institutions setting up their presence here to work in this area and we are certainly looking forward to meeting more people with new ideas to discuss collaboration in this area. Thank you."

MC: "Thank you, Mr Ng. We now invite Mr Peter Holland to share his insights on urban intensity from the Melbourne's perspective."

Mr Holland: "Good afternoon ladies and gentlemen, an honour to be here. I'm going to give you a little lesson in geography about Melbourne before we start. A lot of you who've never hard of Melbourne, don't know where it is so I'm just going to give a little bit of background and it's not Melbourne, Florida. Okay, it's a little bit different story to Singapore and Hongkong as you can see. We have CBD in the background and this is basically the level of intensity we have in Australia and in Melbourne. First thing you should know is Melbourne is a long, long way from everywhere. It's about seven to seven and a half hours from Singapore, one of our closest global neighbours. We are a very highly urbanised continent. We have one of the highest urbanisation rates in the world at 89 per cent. Most of our population or 60 per cent of our population are located in major capital cities. The two primary capital cities are Melbourne and Sydney. My city is Melbourne, that's four million and Sydney is 4.4 and if you look at the Melbourne urban area, it's a fairly extended area, 2100 square kilometres, that's about three or four times the size of Hongkong and Singapore previously referred to, and it's heavily skewed as you can see to the east and to the southeast and that's the way it's just growing around the transportation networks.

It's a look, it's a low-density city without any doubt. That's comparing Singapore with the Melbourne urban area. Our density is about 1700 people per square kilometres and you saw before in Hongkong, approximately four times that and if you take out the hinterland or the other areas, it can be much higher than that. Most of the growth occurs in the outer areas so it's very much an outer growing city and one of our challenges going forward is purely to actually accommodate future growth. We have a growth of another million people by 2026 and another million beyond that through 2040, which is about a growth rate of 1.8 per cent per cent or about nearly 70,000 a year. So that's a real growth challenge in how to accommodate that growth and make the city liveable. From a, if you have any interesting rankings and believe them, I don't believe in too many of them but you put them up and they help, liveability for EIU, we are number one. We normally rank between one and three. The most liveable, sorry, most liveable city as in Monocle, we ranked five, Mercer we ranked 18th and then from a global context, the A T Kearney one where we've been first actually rated this year, we come in about number 32 which is well down the list.

I'm going to move on now and cover some of the initiatives in intensification that we're trying to implement in Melbourne and some of these are really planning-related and some

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are not, they are investment-related and that's the way it's worked. Some have been successful, some haven't but there are lessons. I guess one of the important things about Melbourne is 20 to 30 years ago is really about in which people work from the suburbs, they depart and at five o'clock they went home. This is the John Brack's famous painting, Column Street five p.m., showing the exodus of working going home. It's a love painting and it's actually the most popular painting in the National Gallery of Victoria to this day. So our city's forefathers have recognised that you had to try to make the city more interesting and have other activities and not just be a nine-to-five commute city. So I guess the real thing that has happened is that the city has transformed from a central business district to a central activities district and that's really all about the activities and the variety of activities that occur in the city and this is Federation Square, which just a fantastic meeting place for people. And so there is the recognition that the city is a 24-hour city. It caters to different people at different times of the day, at night-time, morning and so on and that's a whole different view of looking at the city and it's been all for the better.

One of the important I guess initiatives about trying to make Melbourne more intense has been the resurgence in city living and trying to get people live back in the central area. And on of the ways, one of the first things, so this is my initiative number one, was the resurgence as a consequence of Postcode 3000. That was a programme put together by the city government to actually encourage the conversion of older class B, class C office buildings into residential. This came at a time in the early 90s when we had over-supply of 25 per cent and there were certainly incentives provided in terms of rate rebate and certain encouragement for people to do that, highly successful, way beyond expectation, a change way of living for a lot of people who never lived in the city before. This building is right opposite where I work. It's an old public service office building. You can see the cream brick and then on the top floor about five another five storeys again of residential, fantastic building, highly successful. Positive planning is the other thing I think I resurgence of living. There's a recognition that high-rise is okay, you just have to deal with it and as a consequence, there's much more high-rise residential in Melbourne now. It can't be better than provided by Eureka Tower which is 92 storeys, 300 metres high, the second tallest residential tower in the world. Now you wouldn't believe the low density Melbourne has the second highest residential tower in the world. Well, it does, you learnt something.

Urban renewal, we are very fortunate to the extent we have land adjacent to our central business district which has been able to be converted and use for other purposes. And so you can see on the right hand side there where the traditional CBD was. We first extended the central area through south, what's called south bank, on the south side of the river and then through the more recent, the docklands area. Docklands is an interesting case in point. An investment when it's finished, it's about halfway at the moment, it will be US$15 billion. We have a population of 17,000 people and there'll be 40,000 workers and around 20 million visits per day. So it's very fortunate to incorporate those sorts of uses adjacent to your central area because you got the land and most cities don't have that luxury. So that's the Yarra River and that's where South Bank is, which is very much a commercial residential area. This is Docklands. The net result of this, if you look at the numbers, the residential numbers are doubled, gone from 17,000 people to nearly 39,000. Apartments have doubled, the cafes and restaurants have gone from 800

to 1400, again reflecting the use of the city being put to. We've got people living there, people wanting to use it whereas the overall floor space taking into account all sorts, has only increased by 37 per cent.

This initiative is about containing Melbourne sprawl and this is more of an outward line thing and one of the first things they've done is to incorporate or introduce an urban growth boundary, delineating the outage (inaudible) of which growth can (inaudible), high controversial, highly political. Whether it succeeds is yet to be seen but it's in there. It's really got the capacity to cater for Melbourne's outer growth through to 2030. The other part again with contained sprawl is to try encourage consolidation in your middle and outer suburbs and encourage high, not so much high, but medium density development. And this has occurred in certain instances and is incurring more but having saying that it's not easy, it's a struggle. There is a resistance. We have saved our suburbs and I'm sure you have similar protests groups around the world. There is a NIMBY attitude by many people, they like their backyard, they don't like the idea of their privacy being impaired and so it's not a simple issue. One of Melbourne's problems in a way going longer term is it's a very mono-centric city with employment concentrated in the central business area. So our central area can surround 30 per cent, this is within 5K of the GPA, 30 per cent of all employment at the moment and if you look at commerce, it's about 50 per cent. So the government in their wisdom have decided Melbourne has to go from being a poly mono-centric city to a polycentric city and encourage employment in these employment nodes, which are designated. There are five such nodes at the moment. They are major public transportation nodes but again the success is not great.

Some of the reasons for that basically, firstly the land cost referential between the central area and suburbs is just not great enough. And secondly, the public transportation network is also just not good enough, particularly trains. So Melbourne has very much railway train network and transportation network great for the central city but for going around in a circle and connecting through those nodes. So that is one of our problems. In terms of improving public transport, yes, we are very reliant on the car. 30 per cent of our workers still go by car to get to the central business area each day and there's a series of public transport like train, which is quite good and it's really being limited and hampered by a lack of expenditure on infrastructure, on this upgrading and on new investment. Probably one of the better features our city is the tram network, which is quite a unique thing. It's very good for short-term trips. About 15 per cent again of central city workers come by train but it's very short trips. Improvement we're making on that is the super-stops, trying to make it easier, getting on and off including disabled access and also extending the network and providing new fleet.

We're trying to become a bike-friendly city and we're getting better. Bike lanes, bike share, extended bike network et cetera. Public realm, a lot of emphasis on that and credit goes to our city planners and particularly Robert Adams, who has put enormous emphasis on the public realm over long period of time and getting that continuity and again being accepted by whatever political party in power. That's the most central area. A great meeting place Federation Square, the South Bank area, even little things like the way findings has improved. And all these adds to make the whole CB, or central business area, central activity area just more attractive for visitors and people coming in the suburbs, so more intense.   The grid and the grain of Melbourne in our laneways is an important

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feature. We try and retain that in fact extend that. We encourage street art, believe or not, and funnily enough one of the greatest tourist attractions to the city of Melbourne now is street arts. Having said that, it's very hard to control and as any city would find, even Singapore, which I know is not allowed, is just a bit of a challenge.   We have pretty tacky signage, temporary signs and buildings. These are all minor things but they don't add to the attraction but there they are and they are minor.

Events is an issue which Melbourne is not, so much a planning issue but a promotional issue and investment, or a massive event city. Again 20 years now it's been going, sports events - the GP, the Australian Open, racing carnival. On it goes, the wine festival, the comedy festival, film festival, fashion, et cetera, et cetera. Fantastic because you get people using your city. It's becoming intense, they're visiting, the coming from the suburbs, they're coming from the countries, they're coming from other countries, they coming to stay. One of the reasons why? Great venues. Massive investment in infrastructure on those venues, which the government has been very much fore and that political mileage is wonderful. They love, these are real showpiece trophy things. They're not like sewerage and underground systems and so on. You actually see it. And the other thing is there are all located, these facilities in close proximity to the central area, which means accessible for residents by public transport and also for the visitors staying it the hotels.

Finally and again this is not a planning thing but Melbourne has emerged for various reasons as a global university city. That's a great thing for Melbourne. It's comes from all the different forms of government. We have old institutions, we have new institutions, we have new buildings, et cetera. We're now ranked number four globally. It's the best university city. RMIT is globally number five, which is a phenomenal achievement. The numbers speak for themselves. High education, vocational trained and (0:16) gone from 80,000 to 240,000. But the most important thing out of that which is again helps the vitality and intensity, 34 per cent of all our students are foreign now, which have gone from 24 per cent. So sorry to rush through that but that is my city. I think we have done very, well through no credit of mine in the central but the suburbs, intensification has a long, long way to go. Thank you."

MC: "Thank you, Mr Holland. Last but not least, we now invite Mr James Close to share his insights on how we can make virtue from intense cities."

Mr Close: "Good afternoon everybody. I think this session has become a more intense session as we go on along so I hope I'll be able to continue bringing the buzz to this. Keep adding, keep walking, keep advancing as the great 5th century philosopher Augustine Hippo said and whilst it remains true today, especially in the context of development intense cities, it presents a major challenge in a resources constrained world. And I want to illustrate the importance of having a clear and compelling vision to add, walk and advance and of course finance an intense city in a sustainable way and importantly to create a comparative advantage because we've heard from some great cities what they're doing to make themselves effective and in the global economy, making your city better than other cities is absolutely fundamental to all of this. I was going to refer to a few facts but I think in the course of this conference that's been covered, the world is urbanising at an unprecedented rate and competition for resources has never been so fierce both water

and energy but also finance. And the world is having to shift from the credit crunch, from easy money to the credit crunch and human resources as well. This is a really key element of intense cities.

The talented people and capital that drive innovation are more mobile than ever. They'll migrate to those places that have the most aligned offer in terms of brand, strategy, investment infrastructure, services and culture, the very essence of an intense city. So we've seen the shift in economic power form west to east and from north to south and that's having a major impact on urban centres. Globalisation has meant that cities all over the world are more inter-connected than ever before as capital moves freely between them. These trends are trigger points for increasing competition and talent worldwide. For cities across the world, where mature in the West are rapidly growing in the East, now is the time to act and it's really important that we have that call to arms in terms of providing a sustainable vibrant community for the citizens to live, work and enjoy life. To foster economic growth by providing the right conditions for business and promoting an entrepreneurial eco-system that supports the commercialization of innovation and attracts foreign investment.

Whatever the stage of development, there's a clear need for a clear vision and a focus on comparative advantage. How do you anticipate future growth? How do you finance infrastructure and services and what do you need to do to turn urban intensity from a resource threat to a resource opportunity. If cities can address these issues, they do have the opportunity to prosper; but if they don't, they'll fall behind. And we conducted a survey among cities, 60 city leaders and as part of our analysis we develop the model that you see in front of you to help city leaders answer these questions and determine how they could create an edge over their competitors. One of the really interesting features of this survey was how many city leaders thought that today their cities were embracing the future to stretch ahead. Only 14 per cent felt they were doing that whereas 69 per cent in three years' time felt they were doing that and that really is quite key to the success of creating a successful intense city. So combining this commitment to sustainability and the ambition to be successful underpin by leadership is needed to build a strategy for urban success to attract innovative people and businesses and to nurture a high performing and creating a balanced environment.

It's going to be backed by robust analysis, an insight to sell the vision to stakeholders with the ambition of the reality securing the right resources. We'll talk a little bit about finance. As part of creating and deliberating this vision, there's a collective realization by city leaders that sustainability can help deliver long-term economic growth, high quality job creation, energy security and cutting edge competitiveness, the buzz that Peter and Marilyn have talked about. When asked which activities they've initiated to support this policy, the degree of implementation by survey respondents varied. Delivering a green and new transport system ranks high as 86 per cent followed by emission reduction at 80 per cent and energy reduction at 74 per cent. But only 37 per cent of city leaders were taking bold action by offering tax credit for specific green initiatives. The very different challenges for developed and developing cities, I just want to spend a few moments on London and juxtaposing that with some of the initiatives that are going on in fast growth cities. London is a centre for UK innovation and success and builds around its scale the business environment in the skilled and diverse workforce. I think by any measure it's an

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intense city and it has to address its resource consumption and it's committed to becoming a low carbon capital with a target of 60 per cent reduction in carbon dioxide by emissions, 2025, which will be 26 million tons reduction which is well ahead of national target and the target of other major cities.

The Mayor of London and the Greater London Authority commissioned Ernst & Young to explore London's role as a low carbon capital. As part of our report, we outlined three key barriers, which acted to inhibit and slow its transition to a leading low carbon city. Competition from other cities, China, USA and Singapore are putting a huge amount of effort around attracting low carbon and good investments. There's a major low carbon investment gap. The low carbon economy is relatively immature and there's a shortage of investment ready projects which could slow down investment. It's also essential to retain the link between policy and execution. The UK Is leading the way in policy around sustainability but it doesn't need to be executed and there's a real emphasis on London boroughs creating the scale and confidence in delivery. But a commitment to sustainability and a low carbon economy is not enough. I think it's captured beautifully by the quotation at the top the slides from again Augustine, "Do you wish to rise, begin by descending. You plan a tower that will piece the clouds, lay first the foundation of humility." This commitment needs to be linked to building communities and creating a great built environment and energy intensity is a very important part of that. In London, it's 40 per cent emissions and it's a key enabler of change to deliver the low carbon targets.

But there are major challenges around that. London housing stocks are very old and very difficult to reach and the British Government is creating a new means of financing energy efficiency through the green deal and the public sector in London has a role to play to ensure that this works. This will improve London's housing stock, build communities, reduce fuel poverty (?) and reduce emission and importantly in the current environment create jobs. Recycling and the potential and the potential for close loop living can combine sustainability objectives with community building and improving the built environment. It's much easier to do in the densely populated areas and policymakers have the potential to create the conditions for this to happen in London. Just contrast that with a few other cities, Dharava, which is one of the largest slums in the world and part of Mumbai has had to adapt to recycling its waste, everything has a value and also its water in the scarce supply, critical to effective sanitation. But its community is tightly knit and resourceful in trying to impose redevelopment plans and trying to improve redevelopment plans hasn't worked. This represents the challenge that fast growth cities face in improving the built environment.

Many face with the constraints of space and finance whilst retaining the spirit of community. Jakarta has got ambitious plans to implement low carbon public transport to reduce carbon emissions by two million tons over 10 years and increase the number of journeys through trunk and feeder roots by 1.2 million and its urban greening programme is also expected to reduce emissions by 1.3 million tons. This is a good example of a fast growth city being able to expand its transportation system without the encumbrance of centuries old infrastructure. It does require imagination and rigorous planning. Chinese cities have led the way with the link to policy. It's extraordinary how they're committed to retrofit, to accelerate the development of their solar industry. We're

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really seeing the effects of this in the German market as Chinese solar exports are displacing German manufacturing. And of course, Singapore, the city in the garden. It's extraordinary how it's developed since I was here just six years ago. It's the archetype for having a clear vision and implementing and that's really the point.

For cities and countries that continue to be financially constraints, there are three significant barriers – policy, capital and infrastructure. And these barriers are inter-dependent. Without creating an environment conducive to investment, capital is unlikely to be invested at the necessary scale so the infrastructure will not be built at the rate required for sustainable growth in intense cities. And to break this cycle, the key factor is producing a clear vision and a coherent long term set of policies that is centered on long national objectives to grow for jobs, energy security and carbon reduction and the financial markets are prepared to reward those with good plans. These cities have better credit ratings and in a world of potential sovereign default, it could make the difference in raising funds and sustainability is a key part of those plans. The journey towards a low carbon more resource-efficient world has already begun and cities, it is clear, and particularly intense cities have a pivotal role to play in this global transition and can use it to create a sustainable vision for success and to be the leaders of the future. Thank you."

MC: "Thank you, Mr Close. So we now invite Sir Peter Hall and all our distinguished speakers to come on stage again once more for a panel discussion. Just some administration things about the Q&A, you can log on to Pigeonhole to post your questions. Alternatively if you have a question you want to use the mike, we'll ask that you move to the stand over there to ask your questions."

Sir Hall: "Thank you to the emcee. We open the discussion and I like to do this by throwing one question open to all the panel who may care to answer or not as they see fit. Marilyn, you started this session by showing us a picture of the Lower East Side in 1900s. That was a city full of immigrants who were forced together in those very dense brownstone apartment, often in very poor living conditions but as soon as the subway came, as it did to New York at that time and then the commuter railroads developed their huge stations, the Penn terminal and the Grand Central, they even went further out beyond the city limits. New York is now the centre of a fast metropolitan area in the jargon, the New York-Northeast New Jersey consolidated metropolitan, which is one of the great megacities regions of the world. Similarly Hongkong, although artificially divided, somewhat artificially divided, from the rest of its hinterland in the Pearl River Delta is in fact the undisputed global capital of a vast megacity region, one of the largest in the world which has I think Anthony, you're a master of the figures, up to 60 or 80 million people dependent on how you define it. The borders are already porous as you can see at the Shenzhen transfer stations every morning with vast commuter flows coming through. And similarly of course Melbourne although not quite a megacity region is becoming one and you mentioned that the desire to make Melbourne a more polycentric city given the strength those outlying centres such as Balaratt to Geelong but with the difficulties that are involved in creating such a megacity region.

And London, finally, James, has really become a centre of another megacity region, extending up to 160 kilometres in some directions and embracing 50 other smaller places, they own economies and their commuter fields.   In this sense, Singapore is the

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odd because of its extreme constraint on this island. My question to you all really is we all see the potential being realised for creating, for generating more buzz, more vibrancy, more interaction in the very heart, the downtown hearts of these places and it is being associated as you pointed out, Peter, with a new demographic, the young people are coming in, often young singles, students, young professionals. But increasingly we're seeing to our surprise in some cities the families coming back to the inner city because they want the buzz and they find the suburbs boring perhaps because many of them grew up as children in the boring suburbs and they decide not to repeat the experiment on their children. My point is with this tremendous increasing vibrancy of the CBD, of the central city generally, how do you actually generate more buzz in the outer parts of the buzz regions or are we just condemned to see the people in those outers parts coming increasing distances into the centre city for a bit of a buzz on a Saturday night. Can I throw that open? Who like to pick up the question? I'm not sure how many mikes we have, physical resources. We all have. Anyone like to respond to that one?"

Dr Yeh: "I think if we talk about increase in terms about the buzz in the cities, I think Singapore is a very good example as a big of contrast to Hongkong. You see that in the role of the state in creating this buzz. For example like this Marina Bay area, I think this is basically a government initiative with very nice architecture and things like that and so it is now for example also the government is spending a lot of money organizing this World Cities Summit as well as other conventions. So it's creating this type of atmosphere and also the private sector will fuel the planning and also recreation, to be able to also participate in creating buzz itself. In contrast to Hongkong, I think in the last 15 years, I don't think we see that type of buzz going on because of the lack of government infrastructure projects although we are now trying to start the use of the old airport, what we called the Kowloon East development as well as the West Kowloon cultural district which is some sort of resemblance of this Marina Bay area but it's 15 years later, right? So I think the role of the government is very important also as seen from other cities in terms of creating this buzz. And then the government taking lead and the private sector participating, I think this is the public-private partnership that is able to create the buzz."

Mr Ng: "Can I just add on to that? I think what we have done quite differently in the CBD, compare the new CBD in the Marina Bay compared to what we used to design the CBD in the old days, the old days we tend to compartmentalize how the city is designed. There's a part for business, there's a part for residential and the CBD in the old days were designed to be very residential. What we found eventually, that was actually not a very good use of land in a land scarce country like Singapore. After work you have all that space that just go to waste, no economic activities, the CBD is just dead after office hours. And what we have done now differently in the new CBD in the Marina Bay, which is meant to be extension for the old financial centre, are few things. One is to plan for better mixed use so in this area now we are bringing together use for residents, for entertainment and for commerce and retail, altogether in an area. In fact here in Marina Bay, we have invented a new land zoning that's puzzled quite a few people. We called it a white site and we leave it to the developers at that stage of development to decide the quantum of a different use that they would like to put in on the new site that they are developing.

The second thing that we're doing a bit differently in the Marina Bay, we're paying attention to good urban design and architecture. We tend to be a bit more conservative in

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old days. If you look at how the old part of Singapore in the old days was just paying attention to basic survival so it's basic housing, basic design. But in the CDB, I think there's a great deal more attention paid to good design and to bring that about, we actually introduced a couple of new innovative ideas in how we sell land to get good design. In the old days, we tend to do it through a conventional tender process where the guy that bid the highest price will get the piece of land. But in the new Marina Bay, we have introduced a concept of prize concept tender, sorry, we have fixed price tender where we first fix the price of the land and the tender is based on who has the best concept and here in the sense was made possible through this process.

The third thing that we done also slightly differently is to invest in great public places. Here in Singapore because of high-density living, we tend to be pretty generous in providing public space. 10 per cent of the lad in Singapore is kept aside for green space and parks. But again the old days, pretty conservative of how we design parks and all that. But in Marina Bay, you noticed the change, the level of design has been brought many notches higher. The Gardens by the Bay that we have just completed is an unprecedented investment in green space. We put in a lot of resources to make that happen but we are seeing that things like that are making a difference. The big investment in public space help us to bring the community to places that's completely new and in the process, we bring community involvement and ownership. And that is for us I think the first thing that has to happen, you want a great place. It's not about making it a place for tourist. But of course second then the public spaces allow us to bring in all the investment that we need for the area. The fourth thing I think that was mentioned by our friend in Melbourne is the investment in events. This is something that again we have done differently here. It's about bringing the community together to celebrate the place and even to bring the region and the world together to celebrate the place and that is something we have done quite differently."

Prof Taylor: "I love to pick upon that- bringing community together. I was struck by Peter's comment about the CAD, the Central Activity District, and I think Sir Peter, that may be the way out of this dilemma that we tend to fall back to the centre city when we're describing things and yet if we're right, the intensity can be a valuable part of the community than it has it has to occur at different sizes. So I'm just wondering for example for years and years and years, we calculated the size of our cities by how many people live there. Then we got smart and we say well, we really have to calculate the number of people work there because maybe we have to have commuter taxes or for a whole host of reasons and I actually think that maybe we need a new statistic that is about the number of people out in the public realm because that's not truly size dependent or place dependent. It's about having a public realm that feels intense active, shared, vibrant and a critical piece of quality of life. And so it strikes me if I string together several of the strategies that Singapore is bringing out, that there is something quite marvelous about focusing on what it is that brings people out to be together and so maybe we need the activity population of districts and cities less than we need the employment data."

Sir Hall: "One thought Marilyn, since both you and I are academics, campuses are high intensity areas too and in Melbourne, okay, Melbourne University and the RMIT are close to the downtown but it's actually quite some distance away. But I'd say there's probably quite high intensity places during term time."

Mr Holland: "If I could just add to that one, Marilyn, we do try to measure in Melbourne the number of movements into the central area everyday and that's from the residential population, it's people visiting the cultural facilities and it comes about 800,000. That is something the city actually monitors and it's a very good measurement of how active your city, whether you're succeeding and what you're trying to do. The other point, Peter, if I could just add to you question about the buzz, in the buzz being difficult to achieve in the suburbs, I think it obviously a lot easier to achieve in very large cities. So if you take Tokyo, you have Shibuya, you'll have Roponggi hills, you have Ginzi, you have a whole energy. In Australia, there's really buzz, there's no question about that. They're all intense and then they are Sydney suburbs. And then the other point is it's important sometimes to have differentiation so you if you have suburban areas, so again if you take San Francisco or Boston, you have the downtown areas but you have the Cambridge or you have Berkeley which they have a buzz, it's just a student buzz. It's a different population, different level of activity. It's that differentiation which is also important which is hard to achieve in many cases."

Sir Hall: "James has had .."

Mr Close: "You made a great point around 50 smaller places in the southeast of England associated with London. I've sort of summarised the drivers of the buzz being one economic, those areas that are providing higher paid jobs tend to be the ones that have a greater buzz because there' s more money to spend. But of course, that's not everything. The other point which I think several of the other panelists have made is the social and community aspects, particularly those areas that are less perhaps less economically advantaged there needs to be much greater work to build communities and social environment to give a different type of buzz that can mean all 50 of those places contributed to the overall buzz of London in the southeast."

Sir Hall: "Thanks and I'm tempted to say to extent this to those places, a rather famous university cities, Oxford and Cambridge, and they're pretty intense and there are many other university cities in that 50 which also have their levels of intensity. Likewise, the San Francisco Bay area has two great campuses, Berkeley and Stanford, and Silicon Valley has got a fair mount of buzz to it but it's not associated with a conventional high-density city. Now we have the marvelous technology up here that you can't see is flashing madly saying over time, four minutes and 13 second over time at this point. But all we're doing is press the thing on tea time so I propose to press for a little longer and open up the electronic discussion and the big vote comes from this one. Sadly or fortunately humans are highly adaptable, what clear signs show that a city has reached its carrying capacity and then there's a subsidiary question about parks and open spaces and what role they play? But I think the general question is one worth staying with this especially in highly constraint cities like Singapore and when is enough, enough and can it be enough and can it be enough? The demographics you suggested, the complex, the birth rate is slowing as it's typical but you have very high rate of immigration because all our cities are highly attractive to new people. So what point does a city have to display the full-up, sorry, go home sign? Any one want to pick that on one up?"

Mr Close: "Well, I suppose London is a good place start, isn't it, and this is a real hot topic at the moment because it has a great deal of political engagement and balancing the desire

to attract talented people to drive innovation within the city with overcrowding and also the fact you have to open the city to all sorts of other communities and then using that as a strength in terms of creating diversity and excitement and again an element of buzz becomes a really key feature around all of that. I'm not sure I can give you an answer but getting that strategy right is absolutely essential for the success of London and by implication, other major global cities."

Sir Hall: "Yes and I could add as a fellow Londoner that we do see certain key signs of strain in the UK economy in what's called regional imbalance. Some people suggest that the London economy in a fact floating off the kind of offshore island from the rest of the UK. And one index of this is of course the extraordinary London housing market, which is going up at the time when the rest of the UK housing market is going down. And there can be a problem there I think of the winner takes all principle so evident throughout life nowadays and the fact that maybe increasingly a few cities are just going to win out over the rest. I'm very conscious of this flashing sign but I'm going to press for just one more minute. And the next most voted question is actually it's to you James but let's try throw it open to the panel, what is the model of intense city that's not compromised sustainability and what's enabled them to define its success? Anyone wants to tackle that one?"

Mr Close: "I guess the answer is that intensity and sustainability have to go together because you can't make the economics work without making sure that you're reducing your carbon emission on a per capita basis because otherwise, for example I mean that was just one example and similarly consumption is another. You got to use less a bit per person because there's not enough to go around. So I think successful cities are having to balance that dynamic and my view and I think the work that we were doing with the Mayor of London was to try and just to put some matrix around that and some data around that so that you know because a lot of it is based sort of assumptions and prejudice which doesn't really help the debate."

Dr Yeh: "Well, I think the other thing really is to the space time thing, right? In Hongkong, we have a very intense city, intensities in the CBD and the main urban areas. We have also have very quiet type of country park and maybe people can enjoy. And so I think somehow there is a conflict and there is also no conflict, it depends on the scale we are talking about. In certain areas, you can be very intense but in some probably you can be less intense and you can also maintain this type of mental sustainability."

Sir Hall: "I also like to say that Marilyn and I were on the both panel for the Lee Kuan Yew World City Prize. We have some excellent examples that you saw displayed yesterday. To name only a couple, Copenhagen, Malmö are brilliantly successful European cities that have certainly not compromised sustainability or indeed Vancouver for example that rated very highly. But one final thing, the discussion always tends to be skewed towards successful cities from the developed world and Singapore came from the developing world to join the developed world as indeed Hongkong did over the past 50 years. But not so many cities perhaps manage to travel that way. And we realised, Marilyn, I think in that remarkable visit to Khayelitsha, there are places in the fastest growing cities of the world that are far from sustainable on any index including the most basic index of safety, of freedom from being murdered and that sounds rather dramatic but the facts of life in

Khayelitsha we realised were rather dramatic were they not and all praise to the remarkable initiative there. And I think we really do need to close by meditating on the implications for the most rapidly growing cities of the world. Sorry, I think I got to bring it to a close there, 10 minutes and 50 seconds over time. Thank you to the panel for their excellent presentations."

[End of Transcript]