EXPO 2020
إكسبو
دبي، الإمارات العربية المتحدة
DUBAI, UNITED ARAB EMIRATES

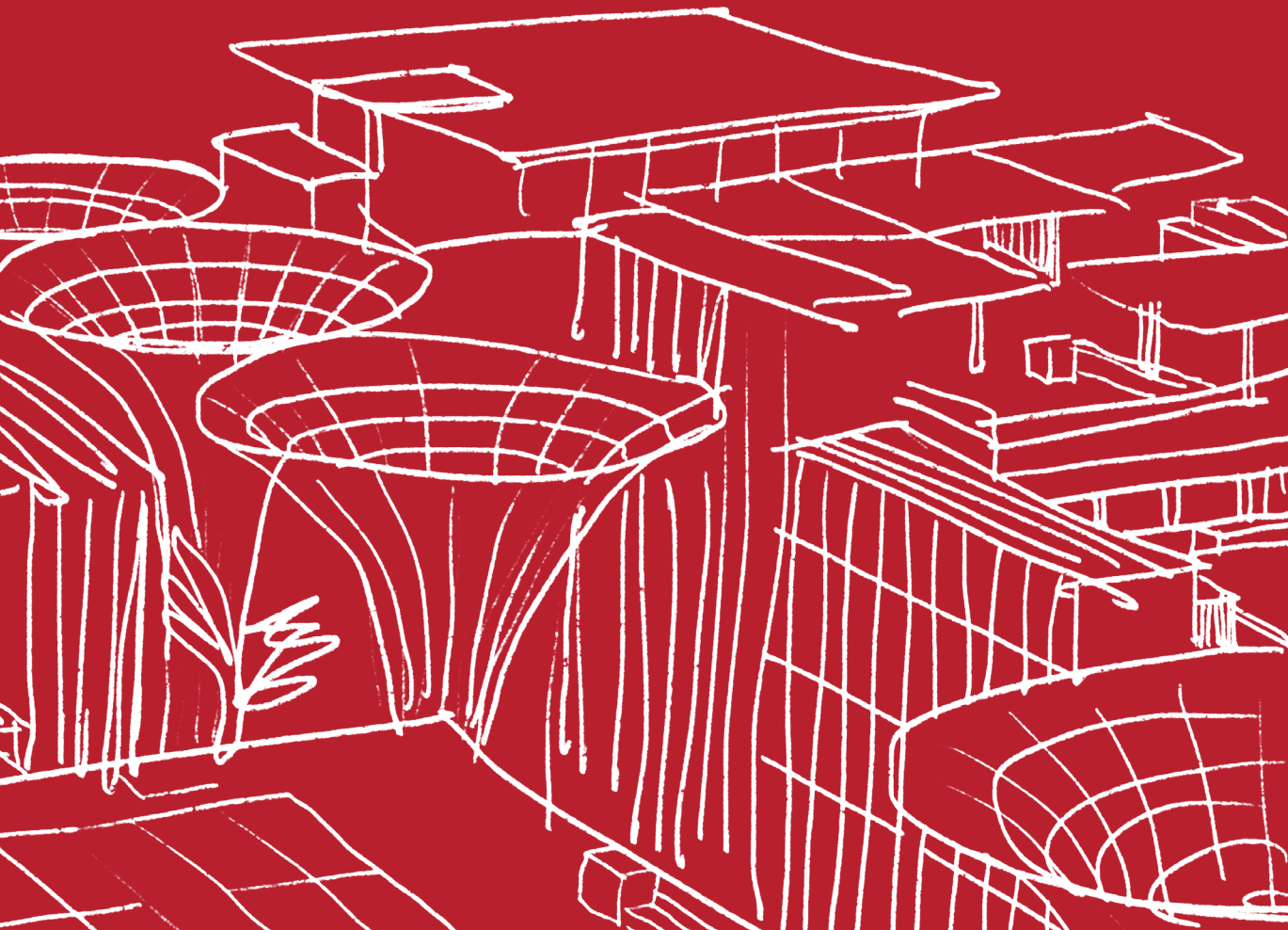المجلس العالمي
WORLD MAJLIS

WORLD MAJLIS INSIGHTS FROM URBAN AND RURAL DEVELOPMENT WEEK

31st OCTOBER TO 6th NOVEMBER 2021

What if we could build resilient and sustainable habitats for everyone?

SUMMARY AND CONTENTS

SUMMARY AND CONTENTS

Deeply rooted in the traditions of the UAE, the majlis is one of the cornerstones of Emirati society, a space that welcomes friends and strangers to share news and ideas.

The Expo 2020 Dubai World Majlis is an inclusive, open and informal conversation space, physical and digital; one that brings together diverse voices from all over the world to reflect on complex challenges for the well-being of people and planet.

WELCOME
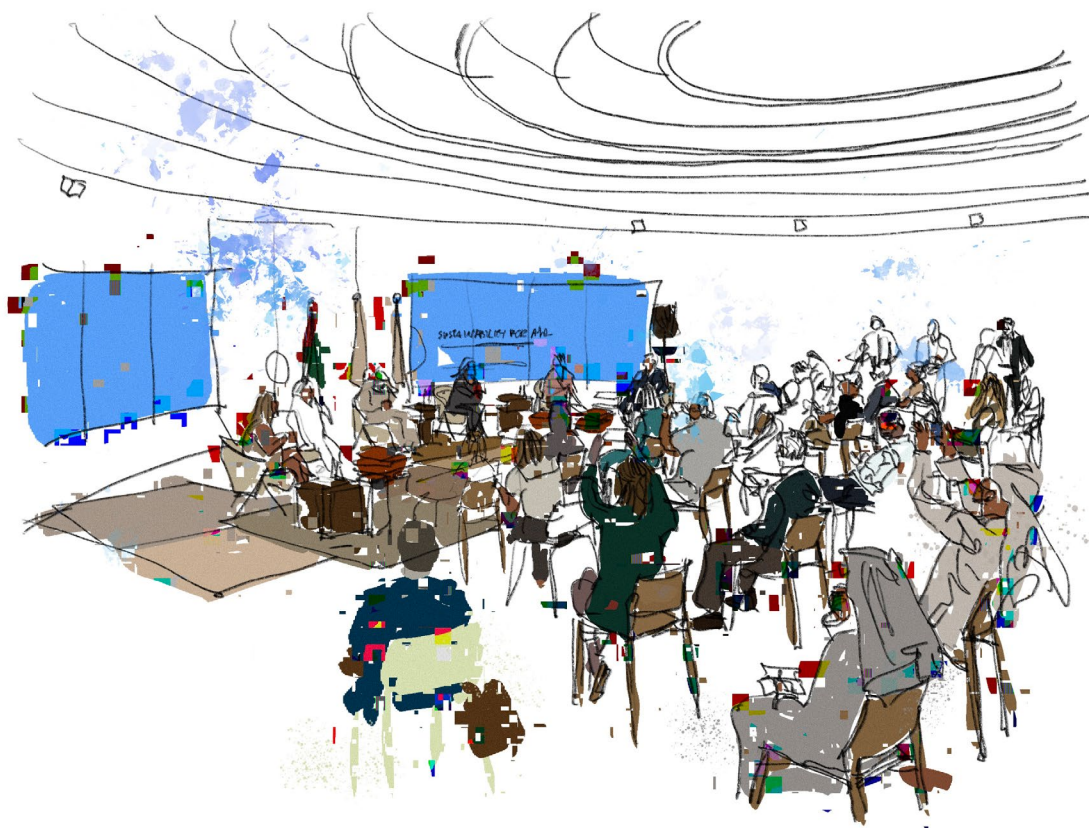
Between 31st of October and 4th of November 2021, Expo 2020 hosted five World Majlis to explore the theme of Urban and Rural Development through the different lenses of people, planet and innovation.

1 **Engineering a Balanced City**

Reinventing world-class cities as social melting pots

in collaboration with Australia

How can tomorrow's urban centres reduce poverty and fight exclusion, encourage cultural exchange, create jobs, enhance quality of life and adapt to climate change?

2 **From City to Village**

Ensuring Access to Resources in Urban and Rural Settings

in collaboration with Slovenia

How different would cities look like if women sat at the decision-making table in urban and rural design, planning and implementation?

3 **Cities on the Move**

Moving Around to Move Up

in collaboration with India

With mobility and connectivity being major factors in economic growth, and higher living standards, how can innovative mobility solutions improve urban life and benefit communities?

4 **Smarter than Smart Cities**

What does a Human-Centric Future for Smart Cities Look Like?

As smart cities evolve from a purely digital focus to one that includes sustainability, will the measure of success be in their ability to improve the wellbeing of its residents?

5 **The Places You'll Go**

Imagining the Perfect City of Tomorrow

in collaboration with the Expo School Programme

What will make some cities look more appealing to younger generations than others?

6 **Natural Cities**

Preserving a Slice of Nature in our Urban Spaces

in collaboration with Singapore

What paradigm shifts are taking place as urban planners increasingly approach the city as a living ecosystem?

WELCOME

Engineering a Balanced City

Reinventing world-class cities as social melting pots

In collaboration with Australia

Australia Pavilion
31st October 2021

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From City to Village

Women's World Majlis:
Ensuring Access to Resources in Urban and Rural Settings

In collaboration with Slovenia

Women's Pavilion
1st November 2021

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Cities on the Move

Moving Around to Move Up

In collaboration with India

India Pavilion
2nd November 2021

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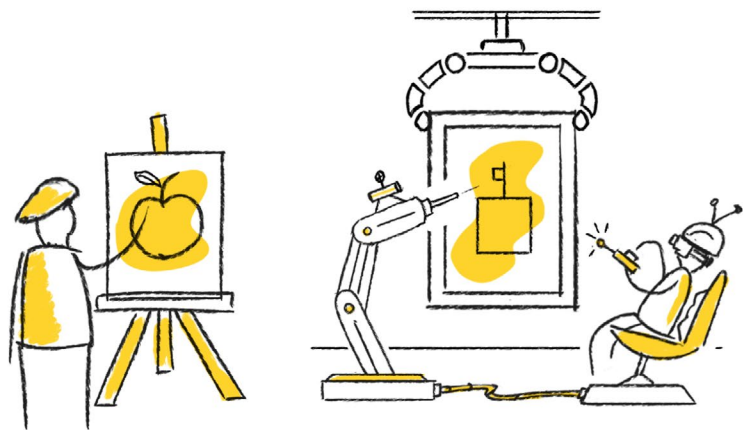
Smarter than Smart Cities

What Does a Human-Centric Future for Smart Cities Look Like?

المجلس العالمي
WORLD MAJLIS

Terra – The Sustainability Pavilion
3rd November 2021

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The Places You'll Go

Next Gen World Majlis:
Imagining the Perfect City of Tomorrow

In collaboration with Expo Schools Programme

Terra — The Sustainability Pavilion
4th November 2021

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Natural Cities

Preserving a Slice of Nature in our Urban Spaces

In collaboration with Singapore

SG singapore

Terra – The Sustainability Pavilion
4th November 2021

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SUGGESTED ACTIONS AND INITIATIVES

SUGGESTED ACTIONS AND INITIATIVES

For Governments and Regulators

CO-DESIGNING CITIES

Plan cities around the health and social well-being of the communities that live there **[p23, 27]**

Co-design spaces with private sector and communities that live there to promote entrepreneurship, talent and art in cities **[p40, 43, 59]**

Redesign cities with clustered neighbourhoods with walkable, mixed-use centers, supported by multifunction buildings and autonomous vehicles where everything that contributes to work-life balance is available within a short distance **[p30, 34, 39]**

BUILDING FOR SUSTAINABILITY AND WELL-BEING

Regulate for better environments and integrate nature into city planning to support health and well-being, as well as sustainability and future of food security **[p27, 51]**

Take into account wider regional systems for food, water, energy and SDGs in policymaking **[p42, 61]**

Incorporate new thinking, particularly for greenfield cities, to include caps on vehicles, net zero and other sustainability measures **[p25, 27]**

CREATING NEW METRICS

Conduct citizen-consultations for new urban success metrics that go beyond quantitative targets with a focus on qualitative outcomes **[p63]**

Apply qualitative metrics to support decisions about renovation to avoid 'greenwashing'. **[p23, 25]**

For Business

NEW MODELS OF COLLABORATION FOR CITY DEVELOPMENT

Create strong partnerships with government to develop new economic models, encourage industrial symbiosis and entrepreneurship **[p47, 49]**

Modernize transportation in conjunction with cities, to meet 21st century demands, e.g. shared transportation, hyperloop and autonomous public transport **[p33, 36]**

Co-invest with government to develop smart cities that deliver services to citizens and foster innovation **[p47]**

Develop new business models to reflect how public good (e.g., public transport) benefit different entities in the city **[p34]**

Develop technologies, solutions and business models for the cities of teh future with the local context in mind. **[p46, 49]**

For Universities

A NEW GENERATION OF CITY PLANNERS

Build a generation of city leaders that are in touch with the neighbourhoods they serve **[p48]**

Foster a new generation future planners as "polymaths"-students who better connect arts and sciences to understand nature and human nature, economics, construction, biochemistry and energy systems, as well as gardening and landscaping **[p26]**

Affiliate specific research centers with cities to support efforts to improve the city and create their own standards **[p40, 48, 49]**

For Planners

CO-CREATING WITH THE COMMUNITY

Engage with communities and residents **[p54, 59]**

Within the limits of appropriate regulation develop ambitious projects to create ever greater quality of life **[p26]**

Connecting the ideas from 50 thought leaders from 18 countries has sparked new lines of inquiry for future conversations and research.

FUTURE INQUIRIES

How do we integrate mission-driven goals in the early stages of city planning?

Does mission-driven planning require a cultural shift in the mindset of urban planers?

How do we balance commercial and quality of life goals in a city?

Is the 15-minute city a solution to affordability of travel?

How do we find new ways of paying for public transport in a way that reflects the value that other stakeholders in the city stand to gain?

Will disruption in transportation ensure that urban and rural are not long at odds – and there is a greater integration?

Is the compact city concept inspired by village life? What else can we learn from rural places to make cities more livable?

Is technology alone capable to empathise and capture the qualitative needs of citizens?

How do we balance technology that listens to citizens and integrate humans in the loop to properly interpret their needs?

How do we train a new generation of "growers" and gardeners?

Why is it so hard to sell nature to city planners?

FUTURE INQUIRIES

Are designers listening enough to residents?

Is local knowledge sufficiently taken into account in the drive to build modern cosmopolitan cities?

What is beyond human-centric cities?

CONTEXT

Context

What if we could build resilient and sustainable habitats for everyone?

Cities are centres of opportunity. They are places where people connect to each other, to businesses and institutions to build a better life. Today around 1.3 million people move to a city every week. With 80% of global GDP produced in urban areas, they are an important part of the global economy.

It is estimated that by 2050, more than two-thirds of the global population will live in urban areas. Today more than a billion people live in informal settlements and the trend is that there will be more and more populated areas becoming so-called megacities and gigacities.

The extraordinary concentration of people and economic activities that make cities centres of opportunities is also the reason for their challenges. They will undergo enormous strain on infrastructure, energy consumption (80% of world energy consumption), carbon emission (75% of global carbon emissions), resulting in a declining quality of life.

"We face global pandemics of social exclusion, poverty, segregation, and migration and that's around global challenges like climate change. The challenge is how are we going to face that soon, immediately together."
Jorge Perez-Jaramillo

The Covid-19 pandemic has accelerated the need to consider how we think about our cities and about how we plan and manage the communities that live there. It has changed our expectations about how a city should function, how we move around and how spaces and buildings will integrate the dynamics of the new relationships between work and home.

With more than 70% of people expected to live in cities by 2050, we need to rethink the way communities are designed and managed.

CONTEXT

"The pandemic has been an advertisement for good planning, good governance, inclusive cities that we could not have had otherwise. It's been a huge crisis, but it also presents us with a huge opportunity to engineer a step change in the way we plan and build our cities."
Shipra Narang Suri

The pandemic has also highlighted profound disparities within cities and the need for a greater emphasis on the importance of cities built around the well-being of the communities that live there. The basics of prevention - wash your hands, keep your distance and stay home – are not easy for the 1 billion people who live in slums.

Cities hold the keys for transformational solutions. Old and new cities can be laboratories for adaptation to climate change. They can also enrich the lives of communities by integrating nature and deploying technologies that can improve quality of life.

For the most part, urban planners are still working with methods established a century ago. However, new approaches make room for both people and nature; rethinking urban mobility in terms of its health and economic impacts; and applying technology "smartly" at the service of both residents and planet.

Dubai's resident population in 2020 was estimated at 3.3 million, with a further 1 million visitors on any given day. By 2040, the emirate's population is predicted to reach 5.8 million, with 2 million daily visitors.

Cities like Beijing, for instance, will combine with two other close by areas to form a global city of about 215,000 square kilometers. A so-called 'giga city' the size of the UK with nearly 130 million people living there by 2030.

CONTEXT

20

Thinking differently about cities

A city is a complex organism where opportunity, mobility and sustainability are all connected. As a result, the current siloed thinking in urban planning needs to be replaced with "outcome-oriented" questions, driven by the health and the social wellbeing of the communities of today and of tomorrow.

From human-centric to cities in balance

The dominant discourse around cities still seems to be around the concept of human-centric cities. While focusing on human needs and dignity remains of paramount importance, we also need to look at cities more broadly; as a balance involving people, nature, culture, and generations—past and future.

Towards purpose-driven urban and rural development

Cities are complex and integrated systems. Their planning requires looking at functional, spatial and community integration driven by the sustainable development goals (SDGs). SDGs provide the goals and mission for an "outcome-oriented" approach to city planning. Their integration should not be limited to the city itself but also rural populations. A decline in quality of life in rural areas will only encourage migration to cities and beyond, with a negative effect on both places.

Cities and nature are not at odds

Traditional planning has left nature and the built environment at odds with each other. But nature can improve health and increase the productive longevity of urban inhabitants, especially given the challenges of social isolation and a rapidly aging population. Nature's benefits also extend to the future of food security, with young generations absorbing the lessons, formally and informally, of sustainability education for the younger generations.

THINKING DIFFERENTLY ABOUT CITIES

Smart city technology is a great sustainability ally

Although the concept of smart city is founded on digital technology, the infrastructure of connectivity plays a critical role in driving sustainability goals. It provides information about environmental quality and the consumption of resources, as well as driving new modes of transport. Beyond management of city performance, new technologies support the development of new business ecosystems as well as educational opportunities that help transition to suit post-pandemic working and living styles.

Changing relationship between home and work

As the relationship between life, study and work completely changes, so do the needs and expectations for mobility in cities. Living and working spaces should be designed to be flexible and adaptable to reflect the changing circumstances in lifestyles.

Rethinking time and distance

City planning continues to be often driven by 19th century constructs when we are actually facing new 21st century challenges with profoundly disruptive technologies and business models. Traditional planning is based on our traditional relationship with time and distance, which in turn is shaped by how we traditionally think about transport. Physical transportation systems coupled with digital technology as well as new sources of energy are creating significant disruption. Furthermore, the requirements for proximity of our activities and a greater focus on health and wellness are giving rise to planning the 15-minutes city.

The city as a canvas for residents to be designers

Design is strongly linked to the sense of identity in a city. The more the communities participate in the making of the cities, the greater their sense of belonging. Governments have a role to play to create an environment where talent, energy and entrepreneurship flow into communities in an organic way. They can create opportunities for citizens to contribute through art and design or other cultural activities in public spaces.

MISSION-DRIVEN PLANNING

Mission-driven planning

While quantitative thinking is important to drive urban improvements, qualitative approaches are essential to deliver solutions that take into account the integrated and complex nature of a city.

There is a general call to develop outcome-oriented challenges. In the past, schemes to improve the quality of life would, for example, focus on quantitative metrics, such as "establish X number of kilometers of bike lanes by date Y". More recently, the goal is qualitative "improving the health of every citizen"; which involves quantitative elements, such as kilometers of bike lanes, but as a means and not as an end goal.

A New Urban Agenda

When exploring qualitative outcomes, the areas of transport and health are increasingly connected through questions such as "is it possible to make the daily commute healthier?" The objective is to shift to new qualitative targets that reflect the degree of citizens' satisfaction. For example, one goal could be "we want X% of people to feel their transportation gives them efficient access to economic opportunities". This type of targets reduces planning in silos.

Sustainable Development Goals - SDGs

The 17 SDGs are one of the best examples of guiding outcomes-oriented planning as they are not about any one sector. They require multiple sectors to work together to achieve them.

The SDGs provide a way to think about planning in a collaborative way based on shared goals and shared ambitions. The cities that are making the biggest difference are the ones that are integrating city-region-country planning, as well as incorporating the SDGs into programming and policies.

Spain's urban agenda stresses the importance of understanding that global, national and urban indicators are different and that cities should develop their own metrics in consultation with their communities and then track the achievement against those goals.

"The 17 SDGs, they're not sectors. It's about hunger, about gender equity, a decent work. So if you have to achieve those impacts, many sectors have to work together. Aren't these problems in every city?"
Shipra Narang Suri

MISSION-DRIVEN PLANNING

01 NO POVERTY

02 ZERO HUNGER

03 GOOD HEALTH AND WELL-BEING

04 QUALITY EDUCATION

05 GENDER EQUALITY

06 CLEAN WATER AND SANITATION

07 AFFORDABLE AND CLEAN ENERGY

08 DECENT WORK AND ECONOMIC GROWTH

09 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

15 LIFE ON LAND

16 PEACE AND JUSTICE STRONG INSTITUTIONS

17 PARTNERSHIPS FOR THE GOALS

MISSION-DRIVEN PLANNING

From quantity to quality

While energy-efficiency goals are extremely important, it is equally critical to monitor the means and actions that are put in place to achieve these goals. There are many examples of 'greenwashing' where significant funds have led to no more than changing street-light bulbs, replacing pavements or flooding roofs with solar panels. While some of this is positive, the result is that many building reno-vations have focused on energy and neglected residents' quality of life. For example, in many cities people are still living in apartments on a high floor without an elevator or internet access or with poor ventilation or lighting.

New terminologies and language

Mobility challenges are a prime example of playing by old rules: improvements in urban mobility are often talked about in terms of different types of cars. By changing the language and calling the transport department "the health and accessibility department", the conversation is no longer about "yes to cars" or "no to cars". Instead, we are working on outcomes where it is easier to find agreement and avoid polarized views.

R&D Cities

The challenges of creating new cities and retrofitting old cities to meet the needs of the 21st century are completely different.

Greenfield cities can act like R&D cities, working with outcome-ori-ented metrics and pushing the boundaries of what is expected from a city: what is the future of smart cities? What are cognitive cities? How can nature be included?

Greenfield cities, which are designed from scratch, provide the op-portunity to incorporate new thinking: caps on vehicles, net zero tar-gets, etc. Here, planners in emerging and developing nations have an opportunity to avoid the mistakes of the past.

They can experiment with the mindset of "industrial symbiosis": transforming one product into another product; using the waste of one sector in another one; asking how to maximize the resources available. For instance, they can look at energy as a reusable good, transformed in a circular system rather than a linear one.

The planning of greenfield cities is not only about integrating dif-ferent systems but also expanding the way we think about the out-comes, going as far as citizens satisfaction.

"I think the regulations are put in place to engender a direction to think, but as an individual designer and an architect, I think it's necessary for us to even go further."
Mun Summ Wong

A new generation of "polylogues"

The complexity of cities requires a new generation of planners, architects and gardeners thinking like 'polylogues'. The education system should instill "blue sky" thinking. This means that the education system, from primary school onwards, should better connect arts and sciences to understand nature and human nature, economics and construction, biochemistry and energy systems.

Today much of our knowledge is separated into specialties. Very few people are putting it together to create solutions. We need to invest in educating the young people to have these skills, an investment with a 30- or 40-year horizon.

Regulations provide a framework, but in the end the architects and landscapers need to go beyond the regulations.

MISSION-DRIVEN PLANNING

"Polylogues are about, as I have stated elsewhere, 'creating new physical and mental spaces where diversity, pluralism, and contending perspectives are present on their own terms but also deeply invested in engaging others in creating and sharing information and knowledge'. [...]

We need polylogues of various scope and scale, operating at different levels. At the most obvious level, polylogues connect minds: people from diverse communities, different worldviews, cultures, ethnicities, identities, perspectives, backgrounds, disciplines, and views come together to explore common problems."

Ziauddin Sardar, "Polylogues: Connecting Minds to Create the Future." Future, World Majlis: The Essays – Conversations about the Future, 2021.

Best practice

MISSION-DRIVEN PLANNING

Spain Urban Agenda

The Spanish Urban Agenda is a methodology that helps cities develop their plans by identifying a series of topics that need to be addressed in order to design the cities of the future. The plans include connecting energy, accessibility and connectivity issues because if we forget that the cities are complex organisms where everything is integrated, then none of these challenges will be addressed.

Spain has renamed its Ministry of Transport and Infrastructure into the Ministry of Urban Agendas in line with its commitment to the international new urban agenda of the SDGs. Every region in Spain has its own set of goals in order to integrate the Paris commitments into each and every city's policy plan and action. The objective is to move from outcomes to impact, and to measure the impact at all levels: global, national and urban.

Spain and the New European Bauhaus

Spain has started working on a draft of a new law on the quality of architecture where the built environment is at the very center of the discussion. Cities are not just a series of buildings or objects spread around; they create an order in our lives and this means we need to defend the quality of the public space which belongs to all of us. Another programme, the New European Bauhaus looks at how funds are used not only for mitigating climate change but also for the benefit of people more broadly. The funds should be invested in an inclusive and sustainable way and in a way that makes cities more beautiful.

Eco City of Zenata

The development of the Eco City of Zenata in Morocco is creating a new city for next 30 years. As a "greenfield laboratory" it provides opportunities to test the expectations of citizens. In Zenata, which is located in a coastal area, there are flooding problems, which has been turned into an opportunity to plan differently, for example by actually displaying flooding systems, making the flooding areas look like flooding parks with trees, creating an ecosystem inside the city while reducing the need for irrigation. Similarly, the surface water is allowed to run on surface with rain corridors that are also creating natural systems without irrigation water.

**Emerging questions
for future conversations**

How do we integrate
mission-driven goals in the
early stages of city planning?

Does mission-driven planning
require a cultural shift in the
mindset of urban planners?

How do we balance
commercial and quality
of life goals in a city?

MISSION-DRIVEN PLANNING

Home and Work in Net Zero Cities

"Cities are the largest source of greenhouse gas emissions which are responsible for climate change, an existential threat for all of us. Cities must therefore lead the global effort to ensure a more sustainable and liveable future for the world."
Desmond Lee

We are still too often using 18th century constructs to address the 21st century challenges we face when planning our cities. Today's challenges are found at the intersection of climate, health and economic opportunity. And the solutions are found at the intersection of technology and new lifestyles.

Cities are responsible for 80% of world energy consumption, as well as 75% of global carbon emissions. At a time of an existential climate emergency sprawling cities that generate vast amounts of greenhouse gases are no longer viable.

In particular, the construction industry is one of the largest emitters of CO2. For instance, around 8% of global carbon emissions come from cement and concrete, not only from buildings but also from of roads built to accommodate traditional means of transport.

But solutions are well within reach: we know how to retrofit net zero and net positive districts, how to build them and how to run them at less cost. This has benefits for the environment, as well as jobs and health.

Alongside the commitments of governments, there is a significant amount of capital being invested in places that build net zero in the outcomes of their strategies and infrastructure.

HOME AND WORK IN NET ZERO CITIES

Time and distance can be both barriers or accelerators for opportunity and have shaped city planning throughout the course of history. Our relationship with time and distance has traditionally been shaped by transport. However, today, physical transportation systems coupled with digital technology and new sources of energy are creating significant disruption - changing how people live and move around a city.

These trends have been further accelerated by the global pandemic. While highlighting strong disparities within and between cities, Covid-19 has stressed that a home is the foundation of both financial and emotional security. During the pandemic some homes were able to adapt better than others, especially in terms of their ability to suddenly become a place of work, a classroom or a kindergarten.

For those with jobs that allow a choice between working remotely or at the office, the challenge for urban planners is to design housing that facilitates work from home with flexible spaces for working and close proximity to nurseries or sports facilities.

The dynamics of all of these elements are now driving a different way to plan cities and transport systems that lead to attractive, walkable, mixed-use centres that will create the "polycentric'" city – net zero and supported by new forms of mobility.

HOME AND WORK IN NET ZERO CITIES

"You don't need timetables. It's on demand. Now, so you've come up, turn up and go in the pod. Each pod will only go direct to destination so there's no sequence of stopping all the way. It's just planned direct destination. So you are now in a situation where you are able to flex the system in real time, with timetables on demand that are very efficient. You're highly utilized, which means actually your energy and your running costs go down, which enables affordability."
Harj Dhaliwal

Rethinking Time and Distance

City planning is shaped by mobility, as an essential enabler of opportunity in cities. Metros lines, for instance, do more than move people from place to place, they help revitalise the economy. Because stations are the nodes that connect people and opportunity, they also enhance the value of the real estate in their proximity.

Changing Patterns of Mobility

The railway was invented in the 18th century to solve the main issue of the day, moving people from home to a small number of workplaces like factories and ports. Today's challenges emerge from new technologies combining with the new expectations of communities - on-demand, personalised services – with the need to respond to climate change.

Traditional mobility in cities is designed around strict timings and the concept of "rush hour". Systems are overdesigned to accommodate for peak hours in the morning and then at the end of the day. If journey times could be significantly reduced, then all of the patterns of travel would change. People would travel when they want and the systems would be quite different. The emphasis is shifting from "how do we widen roads or build flyovers, to make space for more cars" to solutions that invest more in public transport and non-motorized modes.

With smart technology and artificial intelligence, we can shift to "active control" where it becomes possible to predict in real time the actual demand on a transport system which in turn learns to speed up or slow down based on real-time needs.

Systems like Hyperloop hold the promise to be both scalable and sustainable. For example, the journey between Mumbai and Pune, which currently takes 4 or 5 hours, could be done in 20 minutes on the Hyperloop saving 150,000 tonnes of CO_2 from the air, while also moving up to 150 million passengers per year.

HOME AND WORK IN NET ZERO CITIES

"I think government will continue to support the public transport, but there will be more focus on the main backbone and we will leave more to the private sector to provide the other modes, including bus demand. Even in the transportation planning models there will be a shift to something called agent-based modeling tools which we will rely on data from telephone. We will be using different tools to simulate different scenarios, different business models. All of these changes will happen and will provide a more precise modeling to individual needs rather than a sample or a segment of the population."

Muna Al Osaimi

HOME AND WORK IN NET ZERO CITIES

Electric Mobility

The electrification of mobility is a worldwide trend that will define the city of the future. By 2040, most land-based transport is expected to be electrified. The speed at which this change happens, however, will depend on the development of the ecosystem to support electric vehicles and a drop in the cost of production as was the case following the invention of the original motor car.

Battery technology is improving very rapidly. The combination of solar-powered batteries and electric vehicles could remove 80% of the world's greenhouse gases, mostly in cities.

Solar and batteries can create a world of electric vehicles for every form of land-based transport. This would also include new technologies like trackless trams: light rail systems able to move large numbers of people at low cost. And as the larger projects like electric-powered metros and high-speed rail are becoming more and more important, they will also benefit from renewable energy.

The Future of Cars

For personal cars, the infrastructure for electrical mobility must become as accessible as today's gas stations. Car companies are focusing on reducing the cost of manufacturing to ensure electric vehicles become more affordable, and also can travel longer distances on a charge.

Electric vehicles can also become part of a circular-energy model, whereby the car can give back energy during the night time, in what is called "vehicle to grid". Furthermore, car batteries can be reused to help cities provide energy past the end of the vehicle's life.

HOME AND WORK IN NET ZERO CITIES

Connecting transport, housing and opportunity

The changing relation between home and work is highlighting the importance of focusing more locally. The combination of new technologies, net-zero objectives and smart transport, and a different way to live and work is driving the "polycentric city", an urban centre that is walkable, full of people, and offers affordable housing.

In India, the government is investing billions of dollars in new rail and metro systems to keep its cities moving. This is viewed as an opportunity to transform its cities and address some of the long-standing challenges through building transit-orientated developments that include affordable housing.

Interestingly, non-users also benefit from transportation systems. For example, car owners enjoy less congestion, and metros areas see property values rise. However, the construction and operating costs are usually only recouped from those who actually use public transport. An interesting case is provided by France where employers have to pay a transport tax, which helps fund the public transport system that takes their employees to work.

"The fact that you are able to make cities more affordable, automatically adds to the person not traveling too much, because they don't have to live in the peripheral areas. You just need to probably get them better spaces within the city, or have a hub-spoke kind of model, or cluster-model, where the commercial areas are getting their lot in the peripheral zones. Like for example, one of the biggest export sectors for India is the information technology sector."

Vipul Roongta

HOME AND WORK IN NET ZERO CITIES

"So all the net-zero technologies we've talked about can in fact, enable you to create corridors that are net zero transport, with net zero housing and urban development around the stations. They will be improved because the value of the land will go up and you can finance that easier, but you also will have a lot of very good new technology that can enable very attractive walkable, mixed use centers. So the polycentric city, I think will be a major part of the future. They will be net zero. They will be using autonomous, smart technology, to make centers that are attractive, that people want to live in."

Prof Peter Newman

1800	16km/h
1830	32km/h
2020	925km/h
2020	1,223km/h
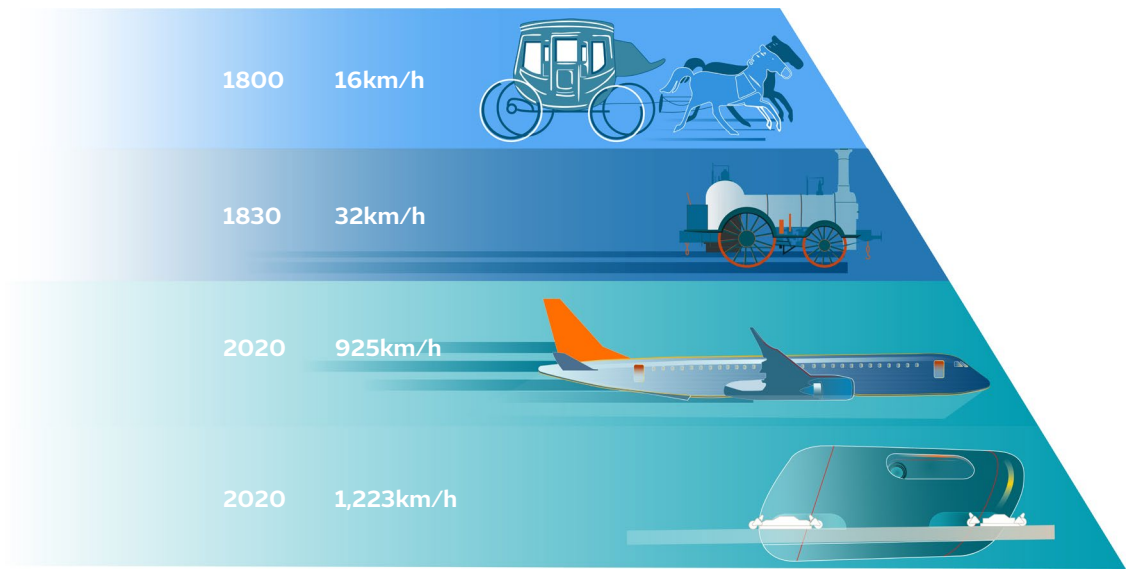
The technology behind Hyperloop reverses our concept of mobility starting from the question of what we do when we move. The answer: we push air. There is a huge amount of energy which is required to move out of the way the air that surrounds an airplane or a train. The hyperloop solution was to simply remove the air and immediately very little energy is required. Every pod is also battery powered and the batteries work with renewable sources such as solar.

Breakthrough Technologies

Autonomous public transport relies on smart city developments. The spread of autonomous driving will, however, depend on the willingness of governments to support the transition and the trust they put in the manufacturers of driverless vehicles.

Hyperloop is designed as a railway solution fit for the 21st century. It merges space, aerospace and high-speed rail technologies to create an affordable mass-, on-demand, electrified transit system that can move 50,000 people an hour in pods capable of holding 20 or so people at a time. Operating at speeds of up to 1,223km an hour, Hyperloop has the potential to slash journey times, resolve inner city congestion and even help tackle migration challenges. In fact, migration is closely tied to opportunity and if time and distance are no longer a barrier to employment and livelihoods then people can more easily stay where they are.

HOME AND WORK IN NET ZERO CITIES

HOME AND WORK IN NET ZERO CITIES

Ownership – Sharing economy

There is a new generation with a different mindset around ownership. This is reflected in the modes of travel and connectivity around the city, where shared transport is the preferred mobility option.

In the future, there will be more of the shared mobility, including personal modes of transport such as cycling or the scooters. This will also impact the business models of car manufacturers, which will have to take into account shared mobility.

While government will continue to support public transport, there will be more space for the private sector to provide other modes. Even the transportation planning models will shift to agent-based modeling tools relying on location data from phones. This will provide more precise modeling to individual needs rather than a sample or a segment of the population.

Libraries of things for the community

The sharing mindset is becoming increasingly pervasive, especially with objects that people don't use so often, like lawnmowers. Designers are starting to think about the processes of sharing toys rather than designing new toys children grow out of a toy very quickly.

"How can you design a process whereby you are pushing something that you own onto someone else in a useful way? So it's more about designing the system rather than designing the object? That's something that's important."
Rawan Kashkoush

"What we've actuallly recognized is that by embeddiing those community responses, you're actually connecting people together. You're helping to tackle things like loneliness and isolation and you're having these multiple wins. It's both about what you just decided to do to reduce consumption, how you've decided to do that and have these multiple wins"

Sophie Howe, Future Generation Commissioner for Wales.

The above was mentioned during the World Majlis "Sustainability for All" (5/10/2021) in the context of explaining the practice of sharing household items from lawnmowers to power tools through the Library of Things, and initiative to help accelerate actions connecting sustainability and urban quality of life.

80% OF THE EXPO 2020 DUBAI'S BUILT INFRASTRUCTURE WILL BE REPURPOSED INTO A FUTURE CITY, WHERE PEOPLE CAN WORK, LIVE AND EXPLORE. REPURPOSED ASSETS INCLUDE THE ROVE HOTEL AND ICONIC CULTURAL ATTRACTIONS SUCH AS THE SUSTAINABILITY PAVILION - THE FUTURE CHILDREN AND SCIENCE CENTRE - DUBAI EXHIBITION CENTRE, MOBILITY PAVILION, UAE PAVILION AND THREE MAIN NEIGHBOURHOODS.

DISTRICT 2020

Human-centric by design - combining modern workspaces and residences and attractions

Handover begins October 2022

At full capacity District 2020 will be home to 145,000 residents and workers

Al Wasl

UAE Pavilion

Sustainability

Mobility

District 2020 has been purposely shaped to boost wellbeing and a balanced and active way of life.

District 2020 boasts fully connected pedestrian walkways and more.

5km of jogging tracks

10km of bicycle tracks

45,000 m2 of parks

Connect. Create. Innovate:

District 2020's will have an innovation ecosystem with a living lab setting for co-creation in high-growth sectors such as:

smart mobility:
smart parking, public transit apps, and smart shuttle services, dedicated autonomous vehicle public transit route will link all major landmarks.

and advanced technologies:
internet of things, environmental sensors, artificial intelligence and 3D printing.

District 2020

Are cities ready for Net Zero?

1. *Net zero is when total greenhouse gas emissions are equal or lower than emissions removed from the environment.*

2. *Cities are responsible for 75% of greenhouse gas emissions globally.*

75%

New mobility options for "net-zero" cities

"Trackless tram present an opportunity to rebuild high-quality public transport in places that lack the population density or capital funding necessary for light rail".

Peter Newman
Professor of Sustainability, Curtin University, Australia

Trackless Trams - Similar to light rail at a fraction of the cost
A hybrid between busses and trams, these autonomous electric transit vehicles don't require rail infrastructure.

1. Electric powered
2. Optical sensors

Hyperloop - Mass transport in floating magnetic pods
By combining an ultra-efficient electric motor, magnetic levitation, and a low-drag environment, hyperloop systems can carry more people than a subway, and with zero direct emissions.

1. Ultra-efficient electric motor
2. magnetic levitation
3. low-drag environment

1. *By 2040 up to 60% of Dubai will be turned into nature reserves.*

2. *Singapore Botanic Gardens were created in 1859, more than a century before modern Singapore.*

60%

HOME AND WORK IN NET ZERO CITIES

HOME AND WORK IN NET ZERO CITIES

The 15-minute city

The 15-minute city is a compact environment where everything that contributes to work-life balance is available within a short distance. Compact, connected, resilient, low-emissions cities are a response to both climate change and economic opportunity. In the 15-minute city, services are closer to the neighborhood providing communities with flexible working spaces and nurseries closer to home on foot or by cycling. The 15-minutes city is always on. It is not based on traditional eight- hours or nine-hours cycles during the day, but is intended to extend through the night.

From hub-and-spoke to cluster cities

The majority of people would prefer to live one minute away from a place of work, and the primary reason they can't is affordability. If housing is significantly more affordable and it is located closer to the place of work, people will travel less. The traditional model of one city centre that everyone travels to is replaced by "clusters", which are also driven by real estate costs for offices. Instead of of being developed as "hub and spoke", cities are being developed as clusters of neighbourhoods where people don't have to travel to a city centre.

Multifunction buildings

The 15-minute city concept has also been applied to buildings themselves with spaces where people can interact and live their life in. It's an integration of existence between what you do, what you want to do with your life and how you want to operate it, all in a compact environment where everything that contributes to work-life balance is available within a short distance. This includes residential, retail, high-end offices, gyms, cinema complexes. Residents can live their lives without travelling.

Of course, for some people this is too insular. However, from the point of view of sustainability and affordability, these multifunctional buildings can be easily repurposed, unlike traditional office or residential blocks that have been designed with only one function.

"Some commercial or residential buildings are only designed that way, which doesn't allow them to be too adaptable. So the buildings themselves, when we talk about affordability and sustainability, how many buildings do we know that have been designed for one purpose in actual fact, halfway through they go on the market shifted. We need to change the purpose of that building, but there's not that flexibility."
Mark Taylor

HOME AND WORK IN NET ZERO CITIES

A 15-minute neighbourhood within a city
In the context of larger city, it may be possible to design the 15-minute neighborhood. Urban planners or city managers should be engaging the community and asking what people want to see when they step outside their door, how that experience can be improved for them. A collaboration with university students to survey residents and find solutions would greatly improve the liveability as well as the sense of identity of neighbourhoods.

"Think about how students or young designers can design her furniture and think about how you can make a city livable in 15-minute range. So just think about that moment that you step outside your door, who around you could be made responsible for improving that experience for you as soon as you step outside and move on from there. We've lost a bit of that. When we talk about building community, it is so important that the results and the solutions one needs maybe in the community is literally right outside. And we forget about that."

Rawan Kashkoush

HOME AND WORK IN NET ZERO CITIES

"Say I have a house, close to a metro system. The property value of my house has gone up. I may not be using the metro, but the property value of my house has gone up. How am I contributing to that metro? So the whole concept of beneficiaries paying for public transport as against only users paying for public transport, I think that is the paradigm change that needs to happen."

Dr. O P Agarwal

Designing affordable homes

There is a increase in real estate prices across the world, without an equivalent increase in salaries. The rent-to-income ratio is at an all-time high. It is a greater challenge today than pre-pandemic, with many of the biggest cities becoming more unaffordable and experiencing increases in homelessness.

Affordability should be connected to quality. We need to make sure that affordable housing is also good quality housing. A key part of this is to look from the perspective of communities, not just from the perspective of individuals. When you start focusing on communities, you start talking about, for instance, affordable housing for all generations and across homes inhabited in different ways.
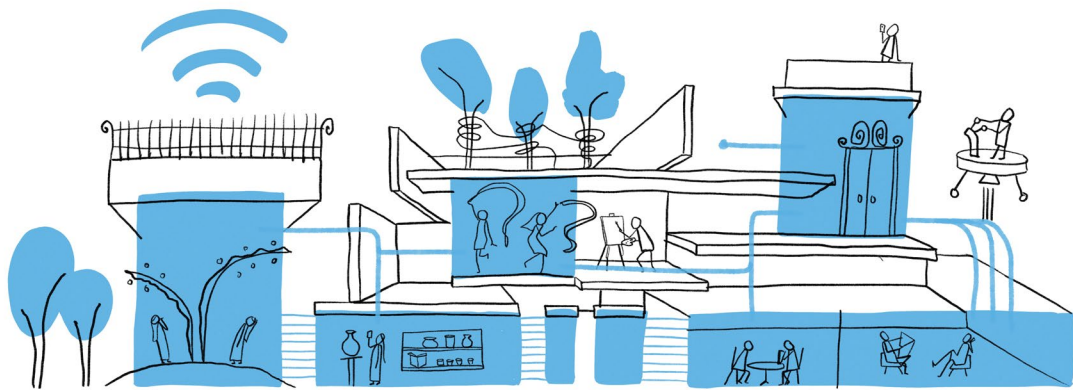
Caring Cities

The notion of "a caring city" refers to enhancing the quality of life for all citizens, and urban planning is essential to it. It builds on the 15-minutes concept to create new central nodes that guarantee proximity to social services and care services, especially relevant to relieve women from the overburden of unpaid care work, social services, and care services.

The city of Bogota is embarking on a 14-year masterplan around the concept of "care blocks" which allow citizens to access social opportunities within a 15 to 20 minute radius or around 800 meters. These also include education as well as labor and income generation opportunities for women. This proximity view is based on a strong gender approach which introduces new criteria for urban planning which includes the roles and needs of women, caregivers, and assistance workers.

In addition to concentrating social services for people in need of care, these blocks have recreation and training spaces that promote cultural transformation focussing on gender equality. They also include safe bicycle routes, parks and public spaces, safer transport systems and sidewalks free of obstacles.

The root of economy, "oikos" comes from the Greek and it means "household" or "home". It emphasizes the original need to take care of the household, and taking care of a city is different in degree, not kind. A caring city is one that is treated by the leaders and the citizens as a common home and it focusses on co-creating cities for everyone.

Addressing Urban-Rural Migration

If time and distance are no longer a barrier to opportunity, we can better utilize resources where they are naturally available instead of directing them to already highly dense cities.

City planning must look beyond the boundaries of cities, at the territorial level. It is important to develop urban and rural areas in parallel. Ensuring that rural citizens have equal access to the city is vital and neglecting to invest in rural development will only drive more migration to the city.

Acting in parallel – city and urban – needs to ensure that as the quality of life in cities increases, so it does in urban areas, especially in developing countries or in post-conflict regions. Women in cities and rural areas are particularly vulnerable. Rural women make up two-thirds of the world's illiterate people. Just 39% of rural girls attend secondary school, compared with 59% of urban girls and 45% of rural boys. About 70% of employed women living in rural areas work in low-skilled and low-paid jobs.

There is a parallel with global migration patterns. Countries that lose their most talented individuals to global hubs are always one step behind. It is the same for rural communities that lose their most ambitious residents to cities. India and Jordan provide different examples of migrations to cities. But in both cases, the commonality is the quest for opportunity.

HOME AND WORK IN NET ZERO CITIES

Best practice

Dubai Road and Transport Authority (RTA)

The Dubai authorities are planning to expand the public transportation system to connect all urban centres as well as making the city more cycle and pedestrian friendly. Dubai is taking a people-centric approach to urban planning, envisaging a rapid uptake of new modes of mobility, such as on-demand shared mobility and electric vehicles, with autonomous transport accounting for 25% of all trips by 2030. Autonomous taxis are scheduled for a 2023 introduction, with the private sector also becoming a major player in transport provision.

Indian rail and metro

In India, the government is investing billions of dollars in new rail and metro systems to keep its cities moving. With its urban population predicted to reach 500m and 800m by 2050, the focus is on providing rapid mass transit systems with low energy consumption. The country has $32bn of metro projects under construction and a further $28bn in the pipeline. A regional commuter train system connecting Deli with satellite towns 100-150km away is also being planned, together with more metros, trams, light railways and dedicated bus lanes. The country intends to spend $700bn up to 2023 on big urban infrastructure as it looks to prepare its cities for the future.

Nissan EV36Zero project

While embracing the electric vehicle, Nissan is also looking at conscious, environmentally friendly manufacturing facilities. Since establishing their plant in Sunderland, the company has been working with the city and other energy and battery partners to expand the capacity to deliver renewable energy for car manufacturing.

Bogota – a Caring City

Claudia López Herdnandez, the mayor of Bogotá, has women and care givers at the heart of her new 14-year urban masterplan for her city – "a caring city". It aims to relieve women from the burden of unpaid care work, with central nodes for social care. It also provides them with opportunities for income generation, education and safer transportation.

**Emerging questions
for future conversations**

Is the 15-minute city a solution
to affordability of travel?

How do we find new ways of
paying for public transport in
a way that reflects the value
that other stakeholders in the
city stand to gain?

Will disruption in transportation
ensure that urban and rural are
not long at odds – and there is
a greater integration?

Is the compact city concept in-
spired by village life? What else
can we learn from rural places
to make cities more livable?

THE FUTURE OF HOME AND WORK IN NET ZERO CITIES

From Smart to Open-source Cities

The concept of smart city has matured from the initial concept originally driven by the sellers of technology. It has come to mean a human-centric, responsive city, where digital technologies are deployed with purpose, including sustainability and happiness.

Today the smart city is focused on quality of life, including attractiveness to people and businesses. It has also become synonymous with sustainability. The objective of a smart city is evolving towards improving the experience of residents, create operational and environmental efficiencies and make businesses more competitive.

While technology is a key part of efficient city operations, it is increasingly deployed for the well-being of the resident.

"Our understanding of what constitutes a smart city has evolved beyond the idea of flying cars and robots. That is definitely not what we mean by smart city anymore. We've kind of matured our thinking. Now, when you talk about smart city, it's synonymous with sustainability."
**Wesam Lootah**

Smart city is a journey

The smart city is not a destination, but a journey to use technologies – high tech and low tech - to improve the quality of life. It therefore requires long-term thinking and continuity and the major challenge is to institutionalise the learning process. In turn this requires academic institutions to support and to ensure that the smart city evolves as technology and ideas progress.

"It is a place intended to be liveable and lively."

Sanjive Khosla
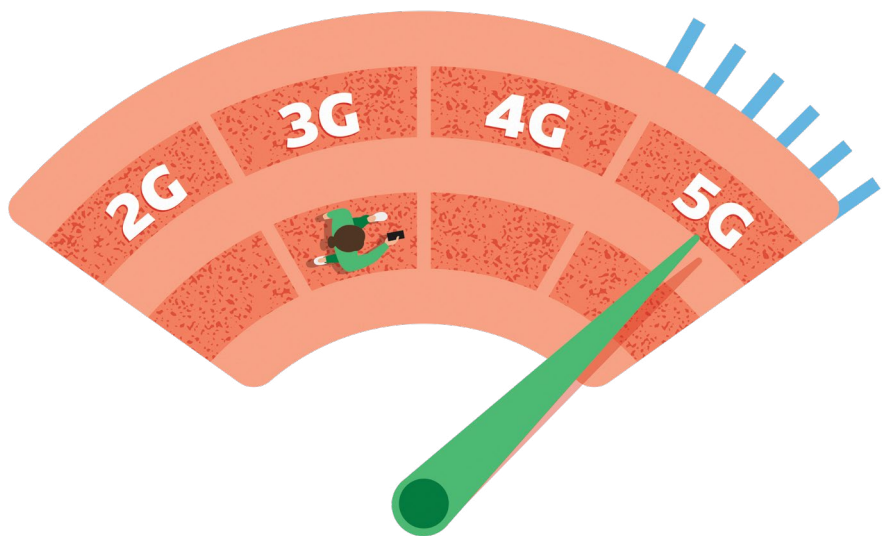
Connectivity

Connectivity is a broad idea: infrastructure, buildings, transport, energy and industries.

Connectivity is the foundation of the smart city, which in turns enables that area to be shaped and managed by information. With sensors analysing what is happening in real time, equipment and services can be operated and provided responsively. Smart technology can make cities more sustainable, reduce congestion and pollution, and make infrastructure safer and places more liveable.

The smart city allows exceptional visibility of what is happening in buildings, in parks and on the roads. Sensors can "see" the environment and provide data which turns into information, predictions and decision-making.

Siemens' MindSphere is an example of the connected Internet of Things (IoT) that brings together things and information.

5G supports greater resolution of video images as well as exceptionally fast data exchange, which are essential to deploy autonomous vehicles. This low latency enables vehicles to react immediately to an incident. To illustrate this reaction time of 5G-enabled objects is 1-10 milliseconds, while that of a human being is more than 100 milliseconds.

A smart city is founded on data and digital technology, but these need to be adapted to the local context and must be driven by the needs of the residents. Innovation in smart cities must translate into places where people can connect.

THE FUTURE OF HOME AND WORK IN NET ZERO CITIES

An open-source city

Smart cities deliver the value to the citizens in the form of services but they also allow to open the city to diverse contributors - startups, innovation ecosystems – and allow them to deliver the services to the citizens without major investments from the city. Some infrastructure investments can be made by other contributors. Entrepreneurial ecosystems and citizens can therefore contribute to a smart city.

"Trust is good, but reg-
ulation is better. Good
regulation also creates
trust. We need both."
Professor Matthias Finger

Transparency and Privacy

Smart city technologies and services can help understand different types of neighborhoods, including which ones are being underserved. But data should be analysed to understand the diverse needs and contexts of citizens. This also supports the co-design of services with citizens.

Tools like a "happiness index" are an important way to understand the expectations of the public and get the direct feedback of the citizens and residents.

With all of these benefits, however, the question of privacy is central to smart cities. People will accept various levels of surveillance, provided they can see the benefit to their lives and the community. But there needs to be transparency about what data is being collected and regulations on how it will be regulated.

Investments

Cities that have successfully become smart cities had a strong vision behind but also the financial means. The challenge for the technology industry will be ensuring cities in Africa and Asia are not abandoned. These regions are experiencing the fastest rates of population growth and stand to gain the most from smart technologies.

Education for "smarter cities"

Every smart city should engage itself with a top university. Smart cities should link up with a specific research center to support efforts to improve the city and create their own standards.

Currently, universities are not part of the picture because they are too specialized. Yet, as independent actors they could play a very important role. In this aspect, local universities can truly provide benefits. They can act as facilitators especially through a network of good academics that can help the whole process.

THE FUTURE OF HOME AND WORK IN NET ZERO CITIES

Best practice

District 2020

The Expo 2020 Dubai site has been designed as a smart city show-case. The planners began by creating visitor personas, looking at their needs and expectations, and only at the end was the technology applied. Even as a smart city, District 2020 takes into account the culture, environment and geographic position of Dubai, with an emphasis on conserving energy and water.

Siemen – Inspiring Young Engineers

Siemens' research and development is connected to academia. 25,000 young software engineers at Siemens comes from different walks of life and represent 80 nationalities. Diversity is a crucial part, but also showcasing, through Expo, what is possible especially high-lighting how technology can be sustainable and how software engineers can be part of this development.

**Emerging questions
for future conversations**

Is technology alone capable
to empathise and capture the
qualitative needs of citizens?

How do we balance technology
that listens to citizens and
integrate humans-in-the-loop to
properly interpret their needs?

Cities in Nature

Cities are where a large part of the climate battle is fought and, therefore, where solutions can be found. They are directly responsible for much of global environmental harm. The contribution of cement and therefore of the built environment to CO2 emissions, for example, is well-known. In the journey to net zero, nature should become a vital part of the infrastructure for wellbeing.

City and nature are two concepts traditionally at odds with each other. One would always be advancing the expense of the other.

A city life full of economic opportunities often comes at the expense of natural wild spaces; a life in the great outdoors forgoes economic opportunities. And if cities make way for nature, it is with a few flower beds that often do not belong to the environmental and climatic context. But maybe now there is a different way to bring the two together, by balancing nature conservation with urban development and weaving the wild much more closely into our cities.

Pioneering cities like Singapore are now showing that the two can co-exist, but also go further, turning nature into an essential part of the urban infrastructure.

Singapore provides a very good example in finding the balance between the built environment and nature. It demonstrates that it is possible for a dense urban environment to coexist with nature.

The city has seen over 100% improvement in the integration of nature in the city, creating a true urban biodiversity. It is important to make space for biodiversity because creatures like eagles or vultures integrate into the built environment; buildings are like man-made cliffs and hills that provide them shelter.

It is therefore important to assess what animals live closer to humans in which parts of an urban area. On the flip side, we do need to rewild the planet in certain areas to regenerate the planet. Regulations help create a better environment now, but are also needed to secure room for nature.

CITIES IN NATURE

"Nature and cities can play a central role in helping us with risky key global public health challenges associated with urbanization."
Mahra Salem Al Shamsi

"I feel that there needs to be a systemic change in how we deploy urban food systems. You know urban spaces have the ability to shift from centralised for production systems that we have now to a decentralised community model. We need to create a move from extractive cities into regenerative cities. And that's how."
Bjorn Low

Nature is necessary to public health

Research has shown that more greenery can enhance physical, mental, and social wellbeing through a visually complex environment that adds emotion, variety, and pleasantness for social and physical activities.

Studies show that a 30-minute walk to a green space can reduce depression, for instance, as well as high blood pressure by up to 7%.

Nature in cities supports food security

Statistics show that 50% of the arable land on our planet is used to feed humans, whereas the cities only occupy 1.72% of the land. If we could make our cities self-sufficient, in terms of food, clean energy, then there is a bright future for humanity.

While Singapore is blessed with perfect growing conditions for a wide variety of flora, the challenge of bringing nature into the city is more complex for the water-stressed countries of the Middle East.

"When we talk about greening, it needs to be specific to the region and suitable to the place … The first step is listening to the place and the people who are from there."

Rowan d'Arcy, Studio Director - Dubai, ASPECT Studios

The Role of Schools and Universities

A challenge for the educational system is to create a new generation of gardeners and growers.

Engaging youth in the gardening process is important. When they get through the process of growing and realise how hard it is, they also start forming environmental responsibility. This is the educational power of urban agriculture.

It is important to talk to children about the value of introducing nature in the city, but also to city managers in order to understand the relation between nature and its role in making the city attractive.

CITIES IN NATURE

Best practice

CITIES IN NATURE

Singapore

The City Garden initiative in Singapore aims to make the entire island of 700 square kilometer garden. The city is lushly planted, from the streets to the rooftops; about 40% of Singapore is greenery, with more than 2,000 species of native plants and 400 species of birds recorded. This has partly been achieved through regulation: property developers have to provide green cover equivalent to the size of the footprint of their building. More than 250 hectares of green space have been created because of this policy.

The Singapore Green Plan 2030 launched earlier this year aims to take Singapore beyond a garden city, to become a city in nature. The effort involves planting 1 million trees by 2030, and putting every household within a 10-minute walk from a park. The intention is to strengthen the country's resilience to climate change, such as flash floods and warmer temperatures, and make it more self-sustaining. It includes a goal of producing 30% of its own food by 2030 - the country currently relies on imports for more than 90% of its foodstuffs.

Expo 2020

Expo 2020 Dubai has been an experiment in designing natural ecosystems "for the place from the place". This is an unconventional way of working, but the environment has now taken on a life of its own. Some of the plants stimulate the senses of visitors, while others have attracted abundant birdlife and bees; honey is now being collected at Expo. Recreated over a larger scale, the greening of desert spaces has the potential to change the atmosphere, creating more precipitation for arid lands.

The Expo site has been planted with 14,000 trees and 3.5 million shrubs. About 70-80% of the plants are native species, many of which were previously unknown to the landscapers. The trees and plants were grown in a nursery from a master list of approved plants.

**Emerging questions
for future conversations**

How do we train a new generation
of "growers" and gardeners?

Why is it so hard to sell nature to
city planners?

CITIES IN NATURE

LISTENING TO PLACE AND PEOPLE

Listening to Place and People

"Cities for people. And I like to say, it's for families. If it's not for families, it's no more a city. It's for workforce. If it's not for workforce, it's only for rich people. It's not any more a city. If it's not for children, it's not any more a city. So let's agree on the principle. And then we will discuss what programs we have and what strategies we have."
Reyad Al-Kharabsheh

"Public space should be it's a public good, it's a public space that in theory should welcome everybody. So, I think trying to use a variety of different ways to make sure that everyone can input into that design process and be heard as part of that so we can try and design places that work for it as many people as possible."
**Jenny Elliott**

Ultimately cities are about the people, their identity and the environment they inhabit. Accounting for people, culture, climate, geography and environment is central to good planning and good cities.

Listening to people and listening to the place - by factoring cultural and environmental features into decisions - is essential to create spaces that facilitate a good life for everyone, including women, children, families, the elderly and disabled.

Culture is one of the most important contextual elements to take into account, specifically how the city has evolved over time. Also, when "greening" a city, planners should consider nature specific to the region.
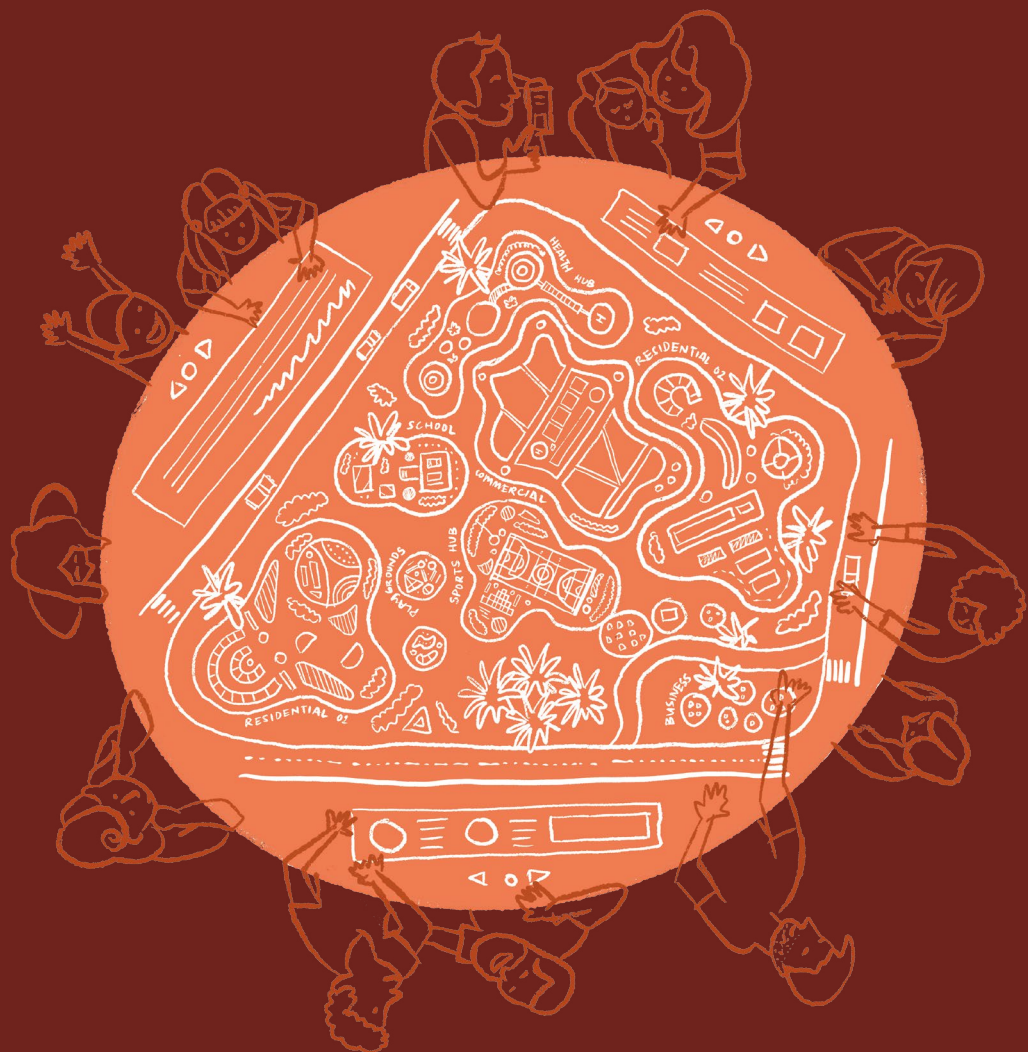
LISTENING TO PLACE AND PEOPLE

"Medellin represents most of the questions
that we face today about urbanization.
The social process that we have developed
with social participation and technical
engagement of all the stakeholders,
especially the university, is co-creating
a few, a future project together."

Jorge Perez-Jaramillo

LISTENING TO PLACE AND PEOPLE

Engaging Communities in Planning the City

Engaging the public in the process of place-making creates a sense of inclusion, empowerment and collective responsibility. The role of different voices is essential to plan and manage cities that are healthy and safe. Specifically, the role of women and youth is critical to creative more inclusive and hospitable cities.

The government plays an important role to enable - to essentially give permission - entrepreneurship and talent to be at the service of the community in a natural way.

"In San Francisco, we created something called Living Innovation Zones. And at first I wanted to call them bureaucracy-free zones. But the mayor told me that I couldn't do that. So we said Lliving Innovations Zzones. The whole idea is that we have these areas, these canvases, and here it's much easier for you to put in your bench. If you want to put it in or display your art, or even perform your cultural activity or whatever it might be. Just essentially carving out some areas where we take away barriers to entry and allow these passionate people, people that want to contribute."
Jeff Risom

Tactical Urbanism

Tactical urbanism is about allowing for things to happen organically in an urban area. It is a way to engage communities to conserve, enhance or try to re-imagine certain areas. This results in much more diverse urban spaces. This includes pop-ups farms on the rooftops of car parks where people actually tend not to park, therefore creating green spaces with food and community.

Cities for women

Throughout history, cities have been planned, built and designed by men. According to the World Bank, 90% of architectural and urban design studies are conducted by men, which inevitably leads to a bias in design.

In order to build liveable and inclusive cities, it is important to include the female perspective, as well as those of other marginalised segments in society such as the elderly and the disabled.

An inclusive city would be a city where women can live without fear, with access to social care services and safe, green public spaces. At present, less than 10% of those employed by the world's leading architectural firms are women and only 24 of the world's capital cities have a female mayor. Women need to have a greater voice in urban planning, but the lack of representation means there are few role models to inspire young females into the profession.

The expectations of youth

According to the UN, one third of the world's population was born after 2001. These young people will inherit tomorrow what is built today. The views and expectations of future generations matter when it comes to designing new urban communities.

Youth are increasingly keen to have their voices heard: youth summits, conversations as well as competitions are good ways to engage them.

In describing their ideal cities during the Next Gen World Majlis, none of the participants mentionted technology. The attitude towards technology is that it is good as long as it does not create new problems. For instance, what would happen to a city powered by artificial intelligence if it was hit by a severe electric outage?

And what does the most digitally connected generation ever known want from their cities? More places where they can connect physically with other human beings; more outdoor spaces where people can connect. The emphasis is on face-to-face interactions as people become disconnected from one another because of technology. Sports and social clubs, and parks are more attractive than malls. Transportation is truly a means to an end to reach everywhere easily, but cities should be designed to be cyclable and walkable.

The issues that most concern the next generation are pollution, overpopulation and the high cost of housing. They said community action was needed to encourage everyone to start recycling and buying local to reduce imports. They value diversity and the opportunity to interact with people of different nationalities and mindsets.

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Co-creating with rural areas

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ates a sense of inclusion, empowerment and collective
responsibility. The role of different voices is essential to
plan and manage cities that are healthy and safe. Specif-
ically, the role of women and youth is critical to creating
more inclusive and hospitable cities.

Given that cities consume food, water and energy that
come from their wider region, city planning can greatly
benefit by integrating regional, metropolitan, municipal,
and neighborhood levels.

"Working with nature helps
with health and wellbeing
from a social and a cultural
perspective. In rural areas
such as Hatta in Dubai Emir-
ate, people have lived in
harmony with nature. We're
considering how these
communities in nature can
support the city in a way
that traditions and agricul-
tural knowledge are not lost."
Mahra Salem Al Shamsi

**"The city of Melbourne has on average 150 publicly
available datasets. But if you think of the City of
Melbourne and the University of Melbourne together,
then you're talking about five thousand and 150 one
publicly available datasets that you can draw on. We
need to start thinking of cities more broadly and not
just the office of the mayor. The ambition of the Office
of Mayor is important, but the community and the
knowledge system more broadly then become really
important to get people to understand why is the
block there more expensive than the block next door?"**

Michele Acuto

جنــــــاح
المـــــرأة
WOMEN'S
PAVILION

Women's World Majlis:
From City to Village

Including different voices

Governance

It is important to highlight the role governance as: systems of decision-making; systems of problem solving; systems of negotiation; and systems of collective action. It goes beyond daily management to decision-making that is hihgly participatory and transparent, and involves high levels of accountability, innovation, inclusion rule of law, justice.

There cannot be a one-size-fits-all approach to designing a smart city as each urban area has its own characteristics. While the big urban challenges might be the same across the world, cities are shaped by their history, environment and culture. For instance, District 2020 has an emphasis on conserving energy and water given the environmental challenges of the region.

"We already heard today that women occupy just 10% of the highest-ranking jobs at the world's leading architecture firms, and they're also severely underrepresented in planning and design professions."
Emilija Stojmenova Duh

"We made research between the students we were focusing on the female students at the Faculty of Engineering and Information Technology. So probably less than a 15% of our students are girls."
 Gabriella Medvegy

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Beyond Human-Centric Cities

The dominant discourse around cities seems to be around the concept of human-centric cities. While focusing on human needs and dignity remains of paramount importance, we also need to look at cities more broadly, in balance with people, nature, culture, and generations—past and future.

The concept of human 'cities in balance' may be more apt—and a healthier approach—to how we conceptualise and plan for the cities of the future. In this paradigm, the organising principle is not centered around the human, but recognises the environment, society, technology, space and time as equally important nodes in the life of a city.

"City in balance" conveys a sense of stewardship and places our existence within the larger context of the ecosystems - natural, historical, social and technological - in which we exist. Thinking of cities in this way mitigates the risk of the term "human-centric" being reduced to a mere buzz word or becoming an obstacle to overcoming the mistakes of the past.

"The future of our cities has to be understanding the knowledge that's come from so many generations before and using that to reinvent life into the city. And that's not just from a human perspective. It can't be human centric.

We have to think about landscape architecture as habitat. We have to think about our buildings as being homes for flora and fauna as well as humans. And yes, there are all these objectives that we need to have in terms of sustainability in terms of carbon neutral, but it has to be more holistic than that in order for us to have a cultural, environmental, social and economic future."

Sarah Lynn Rees

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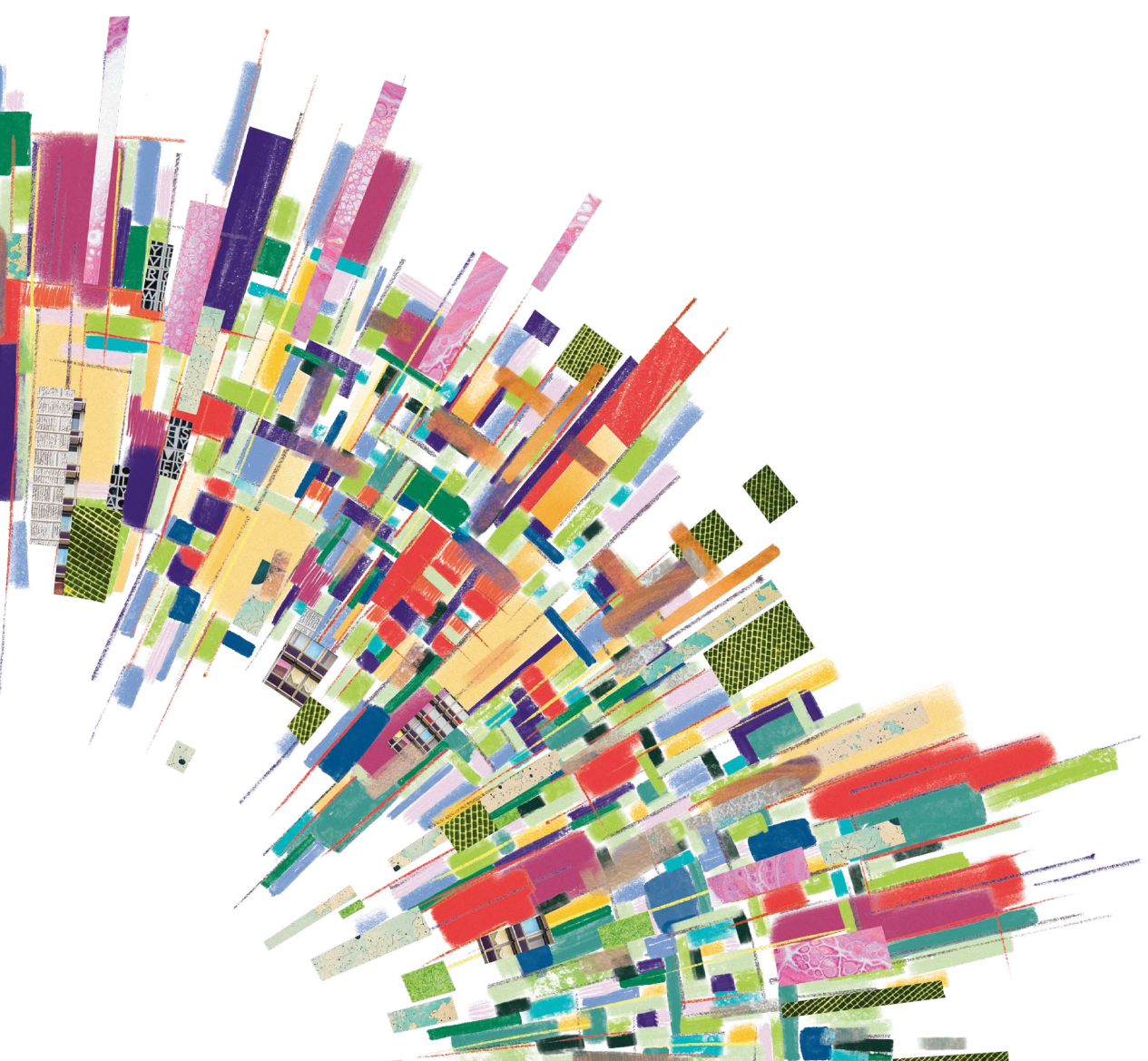
Best practice

Spain Urban Agenda

The developers of Spain's new urban agenda began by asking citizens what they felt needed to be changed in their towns and cities. They found that small design changes can result in big behavioural changes. For example, creating pedestrianised town centres where children could play influenced how adults behaved in those areas too.

Time Square – New York

In New York, the pedestrianisation of Times Square created a blank canvas for the community to use. The area has since taken on a life of its own with pre-Broadway shows, street yoga and art displays with new businesses spring up nearby. Good governance sometimes means removing barriers and setting aside regulations to allow a community to flourish and opportunities to happen.

Bogota

Claudia López Herdnandez, the mayor of Bogotá, has women and care givers at the heart of her new 40-year urban masterplan for Colombia's capital. It aims to relieve women from the burden of unpaid care work, with central nodes for social care.

It also provides them with opportunities for income generation, education and safer transportation.

Connecting Designers and Artisans

Rawan Kashhoush works in Arabic cities across north Africa connecting young designers that have had the privilege of being able to attend local universities in their home cities. They share their ability to use tech with artisans who haven't had access to the same education. They have commissioned design pieces to be made at a local level, then sell them online.

This builds a supply chain whereby the designers are teaching artisans digital skills that they can then use for not only designing but also for accounting. This is a simple way to share education that has been a privilege previously only available for some.

Emerging questions
for future conversations

Are designers listening enough
to residents?

Is local knowledge sufficiently
taken into account in the drive to
build modern cosmopolitan cities?

What is beyond
human-centric cities?

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