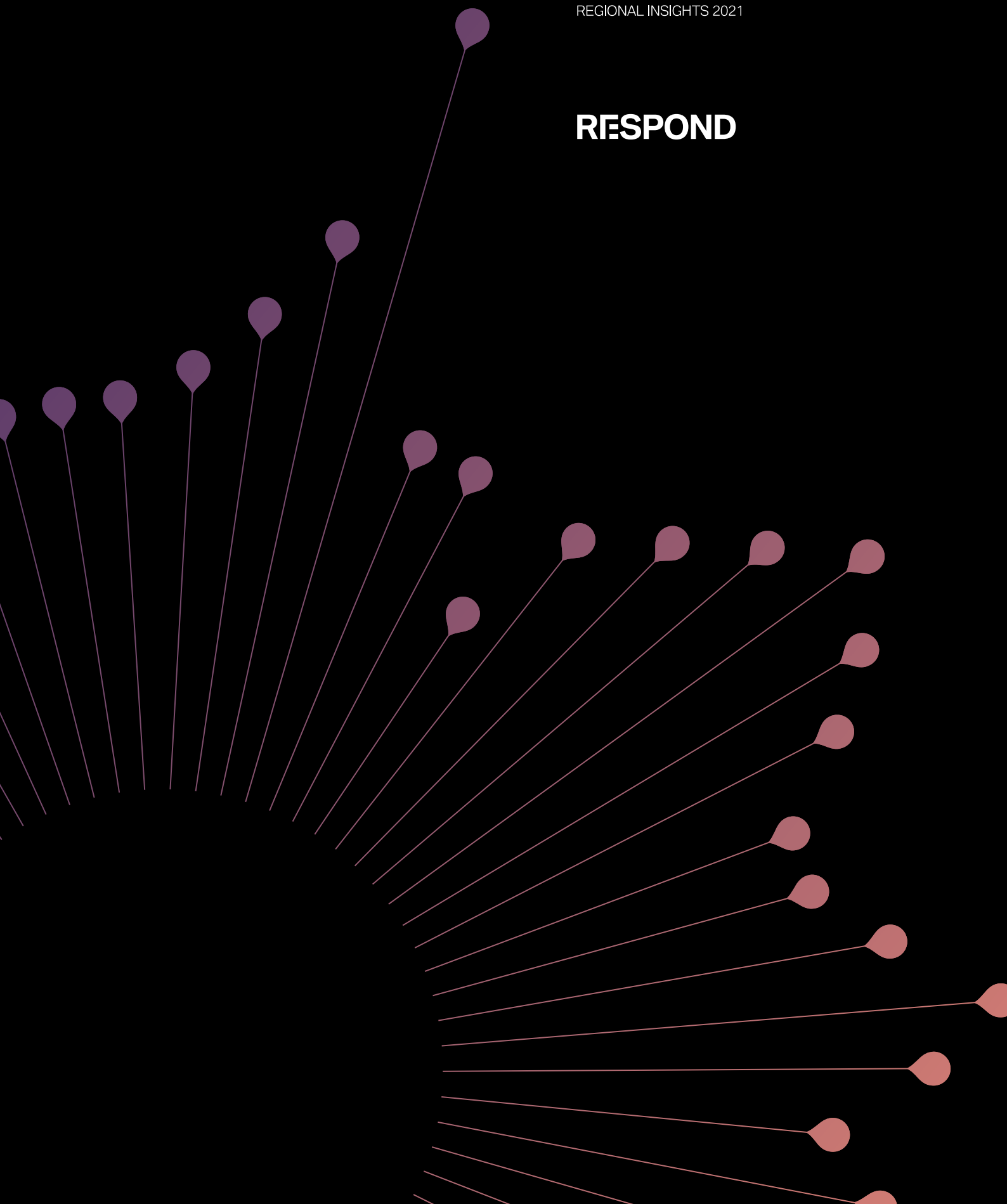


**BMW Foundation**  
Herbert Quandt

# MOBILITY FOR HUMAN DEVELOPMENT

GLOBAL TRENDS &  
REGIONAL INSIGHTS 2021

## RESPOND



"Mobility is the  
single most important  
thing we can do for  
human development."

— **PARAG KHANNA**

Leading global strategy advisor; Founder &  
Managing Partner of Future Map,  
BMW Foundation Responsible Leader.



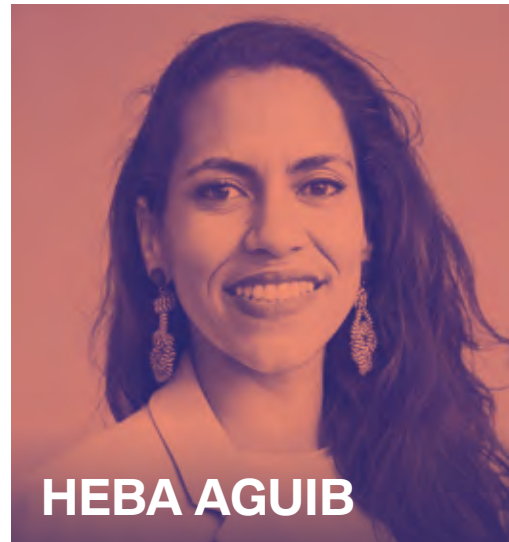
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**HEBA AGUIB**  
**Chief Executive,**  
**RESPOND, Leadership**  
**Team Executive,**  
**BMW Foundation**  
**Herbert Quandt**

**Following the wrap-up of RESPOND's global workshop series, Heba Aguib and Frank Niederländer caught up about the most remarkable and important issues raised in conversations, and what we can look forward to from the BMW Foundation Herbert Quandt as it acts on the lessons learned.**

### **Heba, how do you think mobility can enable human development?**

Looking at the global challenges of our time, we need to change perspective and put peoples' and communities' needs at the center of how we design our society. Social mobility will play a key factor in our future way of living.

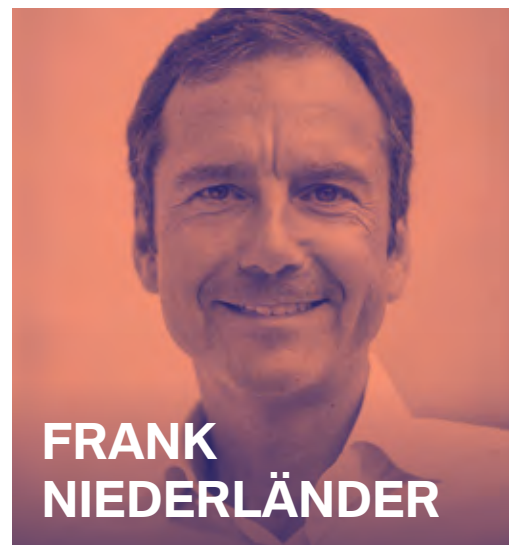
That's why we focused on two topics in our global workshop series - digital and socio-ecological transformation - and asked ourselves how they can contribute to more open and inclusive mobility design:

Digital transformation through data which can create new mobility infrastructure systems for civic and social mobility, and the socio-ecological transformation of existing and future mobility concepts that can foster positive interactions between people and the natural environment.

### **Frank, what role does this aspect of mobility play in the work of the BMW Foundation Herbert Quandt?**

We promote Responsible Leadership in all aspects of our society. To create a more just and resilient future, we need to correctly use the levers of change that we have. For us, social mobility is one key lever. We now run several programs and events on Mobility for human development.

Just several weeks ago, we had Responsible Leader Parag Khanna at the BMW Foundation Pavillon in Munich speaking about "Rethinking Human Mobility". This is a good example of how our Network and the Responsible Leaders in Business, Tech, and Sustainability promote radical collaboration across sectors and borders.



**FRANK NIEDERLÄNDER**  
**Board Member,**  
**BMW Foundation**  
**Herbert Quandt**

Similarly, our collaboration with partners across the world is also one of our most fruitful assets. Like in this report, we worked together with Urban X, Norrsken Foundation, ProChile, Impact Collective and MIT Solve with an astonishing output pointing out what we need to focus on when shaping future mobility innovations. But again, the fact that nearly 150 mobility experts from around the world gathered to discuss how we can improve mobility for humans is quite a testament.

### **If we take a look at the Global Trends, what was the most remarkable insight for you, Heba?**

Adding on to what you said about the BMW Foundation's mission, I really found it interesting that one of the global trends stated the need for more collaboration across sectors or as it says more precisely that "policymakers, developers, and other critical stakeholders work collaboratively with communities to ensure more meaningful engagement and better outcomes". That is quite much what we are doing through our network and our activities with a focus on leaders as a key lever for change.

Furthermore the need for more innovations is a strong statement, and understandable as demographics and built environments are constantly changing.

### **And you have experience living in both Africa and Europe. Do you relate to some of these regional findings?**

I grew up in Cairo, Egypt and can totally relate to some of the regional findings when I hear the call for more education, so that people can influence and shape mobility decisions. Civic participation in these processes requests more from people than ever. And in some parts of Africa, safe and continuous roads are more important to people at the moment than the data infrastructure. But for sure the data infrastructure will be way more important in a couple of years and maybe even influence the growth and wellbeing of whole economies.

### **Frank, what role will access play for social mobility in 2050?**

Physical and digital mobility will enlarge freedom, and provide spatial and social access wherever people have the opportunity. We need to make sure the opportunity exists around the world, and that more people are part of the creation process in their own communities.



# ABOUT US

2



**RESPOND - initiated by the BMW Foundation Herbert Quandt - operates at the intersection of tech-innovation and Responsible Leadership.**

Its mission is to promote solutions for a systemic change towards a more sustainable and just economic system in line with the 2030 Agenda of the United Nations.

One of the main activities is the RESPOND Accelerator program, operated together with UnternehmerTUM in Munich, where coaches and mentors work with a carefully selected group of impact-driven entrepreneurs to scale their businesses globally.

Not only does RESPOND offer a unique accelerator program, but it encompasses a thriving ecosystem of changemakers collaborating on projects, reports, and new approaches on how to speed up the sustainable transformation.

**About MIT Solve**

**MIT Solve is an initiative of the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts, and is a global marketplace for social impact innovation with a mission to solve world challenges.**

As collaborator, MIT Solve catalyzed its community of mobility and urban planning experts to contribute to the series workshops, helping curate rich and action-oriented conversations.

One participant in the Asia Workshop was 2019 Community-Driven Innovation Challenge winner WheelLog!. Based in Tokyo, WheelLog! makes travel more accessible for all people - regardless of physical ability - with its crowdsourced accessibility map technology designed to help wheelchair users navigate places around the world more easily. Thinking about how responsible leaders can make innovations more inclusive and equitable, there are few better examples than the team at WheelLog!.

As the world grapples with the effects of a global pandemic, we can seize on approaches that are working to improve “mobility” in the service of “accessibility” - making sure that everyone has the ability to get where they want to go - safely, easily, healthily, and sustainably.

# RESPOND





3

SERIES  
REPORT  
OVERVIEW



Today, it is hard to imagine a world where ridesharing, video conferencing, and smart city technologies are not commonplace and essential to the way our globalized world works. But just five years ago, these innovations were far from common. In fact, our projections about their use ranged from apocalyptic to a panacea. And yet, here we are, integrating these and countless other innovations into our mobility infrastructure systems with the aim of improving how people connect to the people and places most important in their lives.

Just as we grappled five, ten, and twenty years ago with the ways we would embrace disruptive technologies, we again find ourselves looking ahead, wondering, how do we now leverage the technologies we have in our grasp to make even further progress, faster, and for all?

As an organization committed to promoting Responsible Leadership towards a more peaceful, just, and sustainable future, we at the

BMW Foundation and RESPOND think about this every day. We come into the conversation knowing that business, tech innovation, and sustainability are powerful forces in our global society, and that the same attention that drove advancements in the last decades can be reoriented to drive more socially-conscious and environmentally-friendly solutions in the decades ahead.

**🔗 DID YOU KNOW**

76% of CEOs say citizen trust will be critical to their competitiveness in the next five years. (Accenture, 2019)

**RESPONSIBLE LEADERS** in

**business + tech + sustainability**

use **HUMAN-CENTERED DESIGN**

to create

**mobility solutions**

that promote

**collaboration + inclusion + community engagement**

to help achieve the UNs Sustainable Development Goals.



We're also cultivating a community of mobility experts who are likewise each thinking about this issue from their own unique perspective in the world. To leverage their insights, RESPOND hosted 150 mobility experts in a global series of workshops between April and July 2021. Spanning Africa, Asia, Europe, Latin America, and North America, each workshop explored how mobility innovations can enable human development in the region, and around the world.

**MOBILITY ECOSYSTEM SNAPSHOT**



Each workshop focused on two themes:

### 1. Digital transformation through data

How can data and the digital transformation optimize existing infrastructure, and create new mobility infrastructure systems for civic and social mobility?

### 2. Socio-ecological transformation

How can existing and future mobility concepts adapt to a sustainable transformation and foster positive interactions between social and ecological systems?

Within each theme, experts further explored two aspects of each to better understand both near-term and long-term plans that would facilitate more fully-enabled mobility systems. These discussions were framed as:

#### Today, Forward (near-term)

How can we leverage the potential of existing infrastructure systems, and what is needed to achieve a better mobility infrastructure system in the next 5-10 years regarding digital and socio-ecological transformation?

#### Future, Backwards (long-term)

How will mobility enlarge freedom, provide spatial and social access regardless of social background in 2050 beyond current imagination, and what do we need to achieve this?

## DIGITAL TRANSFORMATION THROUGH DATA

TODAY, FORWARD

FUTURE, BACKWARDS

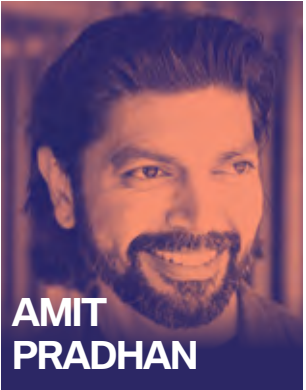
## SOCIO-ECOLOGICAL TRANSFORMATION

Through their conversations, experts painted a picture of the big issues - over three dozen! - they saw facing society, ranging from climate change and digitization to identity politics and culture shifts. Three topics specifically were focal points of all five workshops, and are included in this report as Global Trends. You can read more about them in the next section.

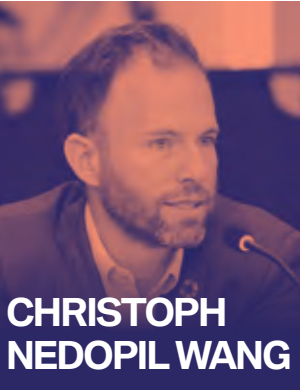
And as much as this report is designed to uncover trends and insights facing the industry in geographies around the world, it is also meant to promote the people and organizations practicing responsible leadership through their work everyday. Throughout, you'll see some of these leaders profiled in special features, including:



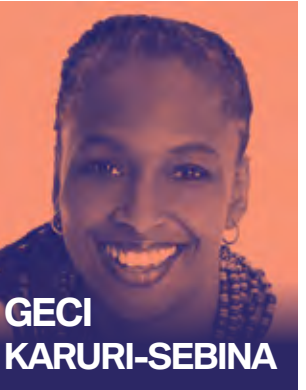
ASEAN Director, Impact Collective



Founder & President, Silicon Valley Blockchain Society



Founding Director of the Green Belt and Road Initiative Center



Associate, South African Cities Network Faculty, SingularityU South Africa



Deputy Secretary, Department of Urbanism and Licensing, City Hall of São Paulo



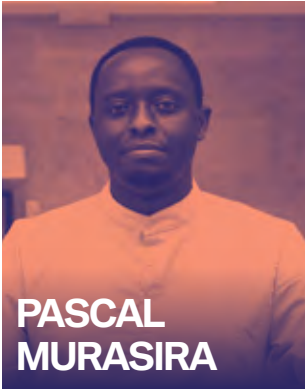
Senior Advisor, SLOCAT - Partnership on Sustainable, Low Carbon Transport



Managing Director, Urban-X



Founder & Managing Partner, FutureMap



Managing Director, Norrsken East Africa



Trade & Innovation Representative, ProChile



Chairman, Shift4Good

We are also proud to showcase the work of our regional partners, who helped organize this workshop series, and express our gratitude for their sharing time, resources and expertise to make this report possible.

#### North America

### U R B A N - X

Accelerator for startups reimagining city life @urbanxaccel

#### Africa

### <norrskén>

Helping entrepreneurs solve the world's greatest challenges @norrskén\_org

#### Latin America



Promoting the supply of Chilean goods and services in the world @ProChile

#### Asia

### IMPACT COLLECTIVE

Community-driven investment and acceleration for impact makers impactcollective.earth





4

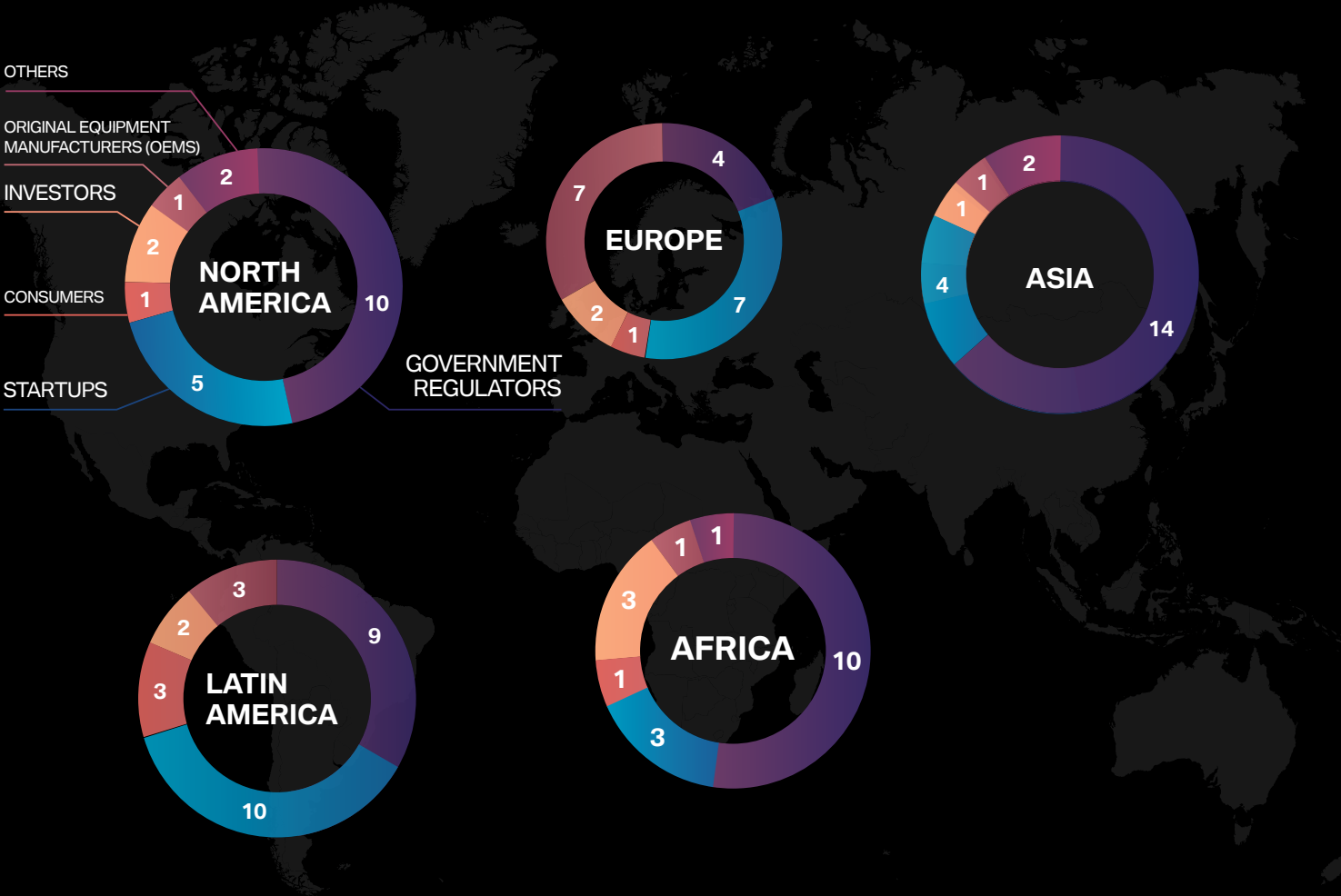
GLOBAL  
TRENDS



SPECIAL FEATURE

# WHOSE RESPONSIBILITY IS IT TO KICKSTART A SYSTEMIC CHANGE OF MOBILITY?

Most experts around the world are looking to governments to lead the way, with start-ups not far behind.



Exploring if and how mobility innovations can help enable human development is a dangerous exercise. It is driven by informed curiosity, with no promise of consensus, and requiring both blue-sky visioning and practical reasoning. Fortunately, the RESPOND network includes experts of both mindsets who are able to draw from their lived experiences to help inform, iterate, and increase innovative thinking on the issue. And equally fortunate, consensus did emerge around key issues on the minds of mobility experts regardless of their location in the world.

We see these key issues as Global Trends. They are the issues that responsible leaders will need to grapple with as they design and build more advanced mobility infrastructure, either in the shorter term, or longer. As the RESPOND network sees it, these trends include:

Helpfully, these three trends not only highlight **what** is most important in the field of mobility innovation today, but **how** more fully-enabled mobility design can be accomplished. And while each region focused on their own aspects of these trends, as illustrated in the following pages, it is fair to say that these trends amount to three cornerstones for achieving a fully-enabled mobility system designed for human development. Let's take a further look at each.

## 1. THE IMPORTANCE OF INCLUSIVE AND REPRESENTATIVE DESIGN

Expanding data collection and design approaches to better understand and address the needs of people with varied abilities, characteristics, and backgrounds in an effort to advance equitable human development.

## 2. THE VALUE OF EFFECTIVE COMMUNITY ENGAGEMENT

Enabling greater community influence in the planning process through policymaker and business coordination to ensure mobility solutions serve their intended purposes with minimized secondary consequences.

## 3. THE NEED FOR CROSS-SECTOR COLLABORATION

Encouraging more systematic and complete sharing of data by key players in the spirit of improving mobility's social, financial, and environmental impact.

### 🔗 DID YOU KNOW

The market share of innovative mobility services is projected to quintuple through 2040, while the share of private cars will shrink by roughly a quarter (Oliver Wyman, 2017)



# 1

## INCLUSIVE & REPRESENTATIVE DESIGN

Experts are asking the fundamental question about who mobility innovations are supposed to serve, and how best to serve them - identifying key groups of people whose needs have been largely left unmet in the design process throughout the decades. Only by accounting for diverse needs, habits, and patterns can mobility innovations really help advance human development on a global scale.



**Innovators can use human-centered design to build solutions that engender trust and help systematically create more equitable, accessible, and healthy societies.**

### Global Trend: Aiming for Demographic Equity

While emphasis of specific demographics varied from region to region, there was a universal appeal across workshops for greater human-centered design, with an eye towards equity across all groups of people. Most often, concerns about women and racial minorities’ needs were raised in discussions, along with those of rural and lower-income communities. Age and physical ability also surfaced in many of the workshops, as well as sexual orientation.

**DID YOU KNOW**

96 percent of 18-35 year-olds surveyed would consider switching from cars to public transport for access to smart mobility. (Oliver Wyman, 2017)

-

As of 2020, the world has an estimated 26.3 billion digital devices and connections - more than three times the number of the global population. (United Nations, 2012)

# 2

## COMMUNITY ENGAGEMENT & DECISIONMAKING

Related to calls for more inclusive design is the global trend among mobility experts to seek greater community engagement in the decisionmaking process. Based on traditional, commonplace dynamics between communities and governments, there is little opportunity for meaningful contribution or say from communities when mobility innovations are being launched. This blockage not only complicates the relationship between the two - with mounting distrust, frustration, or bureaucracy - but it can lead to ill-designed innovations that do not fit a communities’ needs. The solution? More and better community engagement across the lifespan of the innovation process.

### Global Trend: More meaningful and comprehensive engagement

Beyond soliciting ad hoc input from residents at intermittent points in a project, policymakers, developers, and others need to work collaboratively with communities to ensure more meaningful engagement and better outcomes. More meaningful engagement can include participatory data collection, proactive communications, and formal decisionmaking authority. With more touch points, there is greater likelihood that innovations will address critical needs from the outset, and be able to evolve with communities’ needs as demographics and built environments shift.

# 3

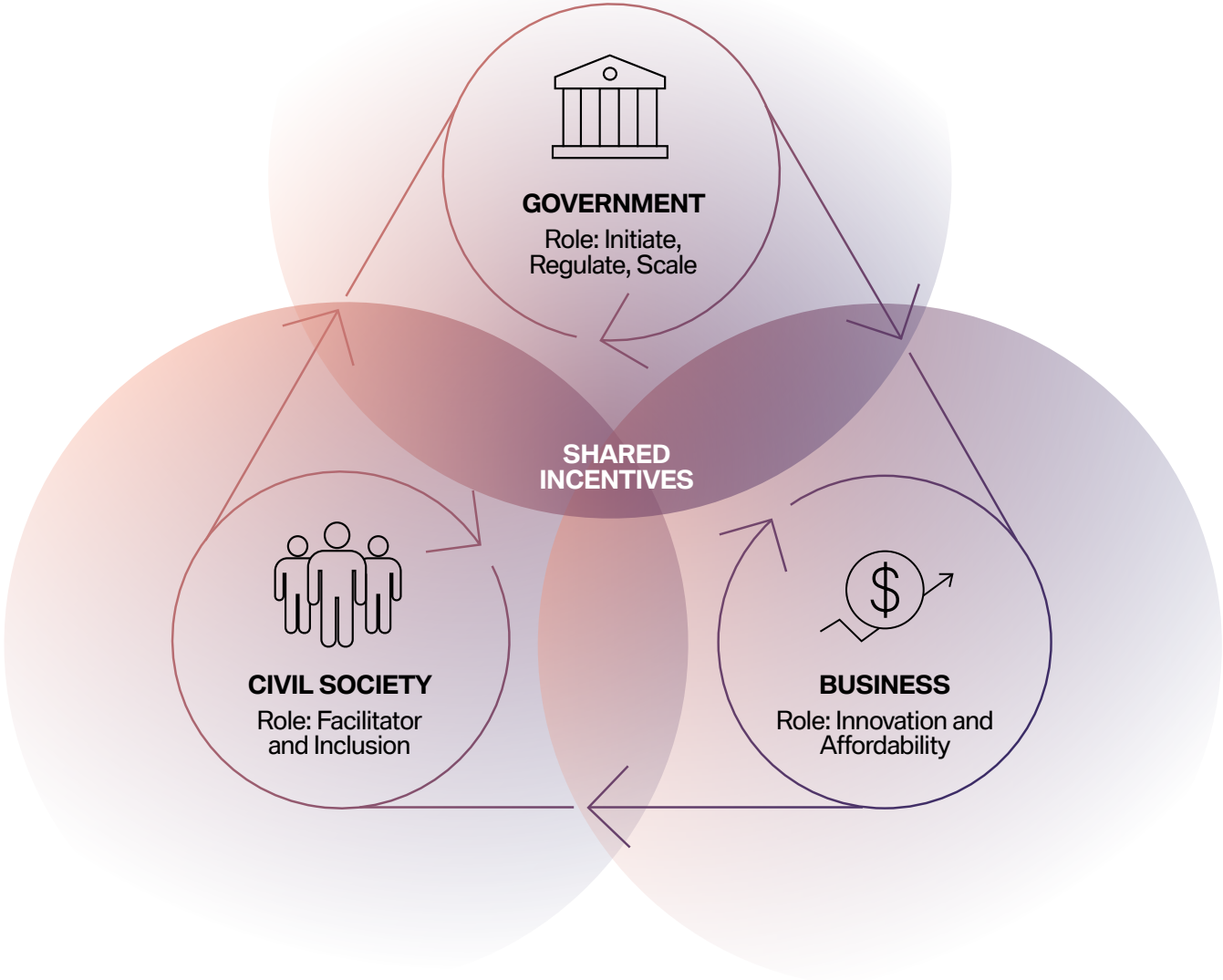
## CROSS-SECTOR COLLABORATION

**In a perfect innovation ecosystem, Government, Business, and Civil Society would each share more openly within their own sectors, and in coordination with the others, to achieve common goals.**

No topic is more exciting, contentious, urgent, stressful, and at times, bewildering, than effective cross-sector collaboration. Even this headline might make some readers’ heads spin. But whether it is the confusing lack of collaboration, or the bureaucracy of too much collaboration, there's a clear desire for more effective means of exchanging data and ideas between government, business, academia, and civil society to improve mobility innovation.

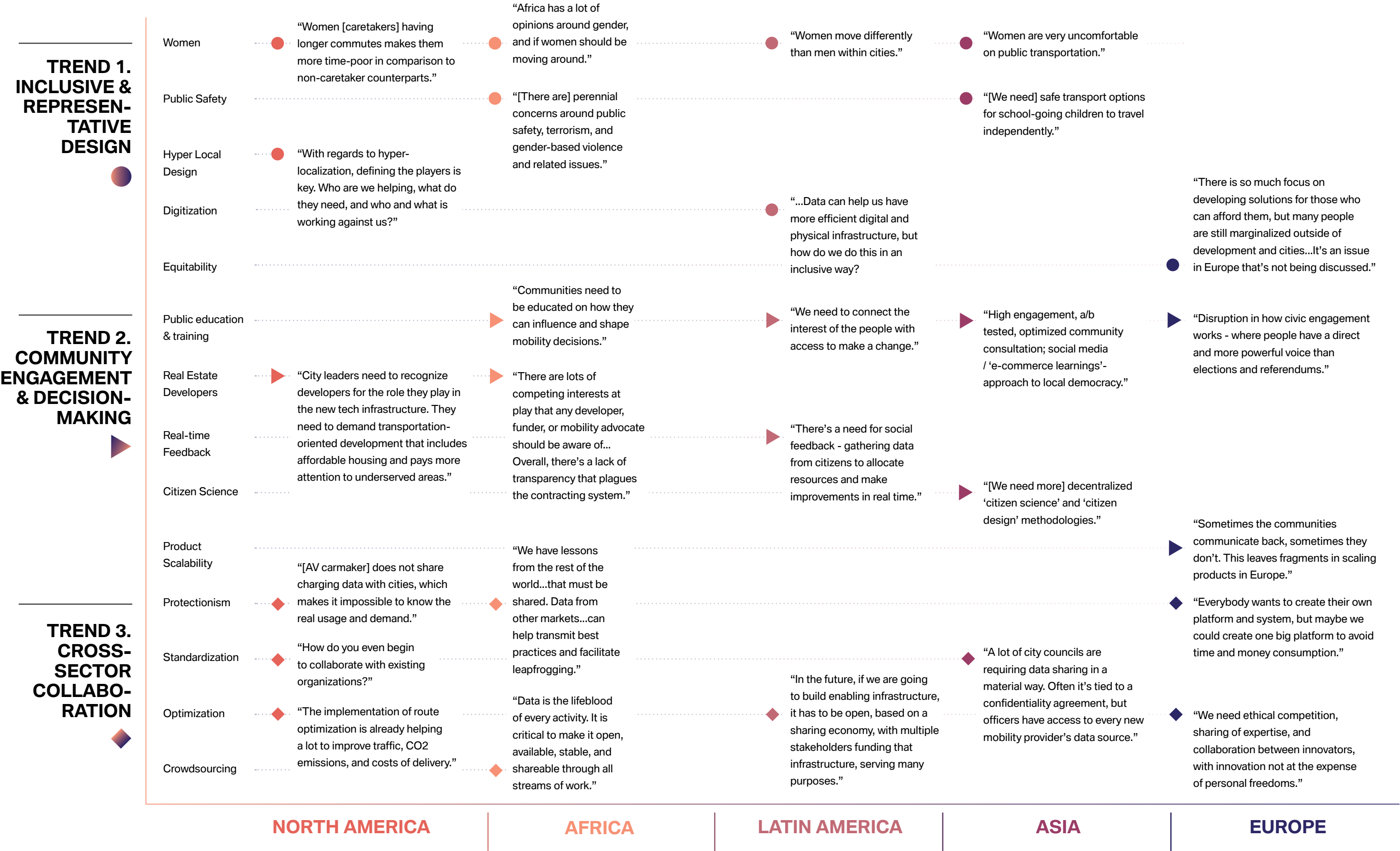
### Global Trend: Defining sectoral roles in innovation ecosystems

Across all five continents, there is a common understanding about the role each sector plays in the innovation ecosystem. Of the three sectors - Government, Business, and Civil Society - it is Government’s role to spur innovation through regulatory measures and incentive alignment. Business is responsible for designing, developing, and economizing mobility innovations. And last, Civil Society’s role is to ensure innovations are distributed equitably. It is also common thought that civil society organizations might be well-situated to serve as arbitrary “Data Brokers” between the sectors, helping ameliorate some concerns about usage rights.



WORD AROUND THE WORLD INFOGRAPHIC SPREAD

While everyone is talking about these three global trends, each region of the world sees them each a little differently. Here’s what the conversations look like in each part of the world:







**LIZA CASTILLO**  
SENIOR ADVISOR, SLOCAT - PARTNERSHIP  
ON SUSTAINABLE, LOW CARBON TRANSPORT

MY VISION OF MOBILITY FOR HUMAN DEVELOPMENT

Mobility has always been and will always be an extraordinary enabler of Human Development. As John Butcher said, "Walking is the first thing a child wants to do, and the last thing an old person wants to give up." Mobility means freedom, evolution, and hopefully, an abundance of health and happiness. Cities and neighborhoods that prioritize access to non-motorized modes of public transportation will have happier inhabitants who participate more in community life and realize its co-creative power for improving their well-being.

THE CORE VALUES I AIM TO UPHOLD IN MOBILITY DESIGN ARE

- 1. People-centered design with effective citizen participation
- 2. Innovative governance models
- 3. Data accessible to all

A TIME WHEN MOBILITY IMPROVED MY QUALITY OF LIFE

About 12 years ago, negotiations were gaining momentum in Costa Rica between bus operators and government authorities to improve the urban bus system. Rapid Bus Transit (BRT) systems were being discussed as one solution. To help us understand how the system was working, we rode the BRT. The photo in the right represents a lot to me because it reminds me of two diametrically opposed moments and emotions:

When I got on the BRT, I was excited and nervous. I was quickly immersed in a completely frightening, violent, and unsafe space - surrounded by all men. I felt stares and signs of harassment throughout the trip, and that I had to take care of myself. That 15-minute trip marked my life and pushed me to work even harder for the improvement of public transportation systems with a gender perspective.

WHAT I'M MOST EXCITED ABOUT IN MOBILITY INNOVATION

I'm most excited about how cycling and walking are once again taking their place in cities, improving air quality and creating safer and more inclusive spaces for wellbeing-based living.

**NAME:** Liza Castillo Vásquez  
**TITLE:** Architect  
**ORGANIZATION:** SLOCAT Partnership  
**LOCATION:** Costa Rica  
**EXPERTISE:** Mobility, Women, Co-Creation, Empowerment, Methodologies

TOP 3 THINGS TO READ:

- 1. **Streetfight** by Janet Sadik Khan
- 2. **The New Mobility Handbook: Rethinking How We Get Around Cities** by Michele Kyrouz
- 3. **SLOCAT** Transport and Climate Change Global Status Report, 2nd Edition

TOP 3 PLACES TO WATCH:

- 1. **Luxembourg**<sup>1</sup>: Free public transportation for all people
- 2. **New Zealand**<sup>2</sup>: Mobility and public transportation with a gender perspective
- 3. **Kenya**<sup>3</sup>: Electric two-and three-wheelers transforming transport



Liza Castillo on BRT in Costa Rica.

1. <https://www.bbc.com/worklife/article/20190128-the-cost-of-luxembourgs-free-public-transport-plan>  
2. <https://activetravelstudies.org/article/id/991/>  
3. <https://www.unep.org/news-and-stories/press-release/e-boda-bodas-promising-day-electric-transportation-east-africa>





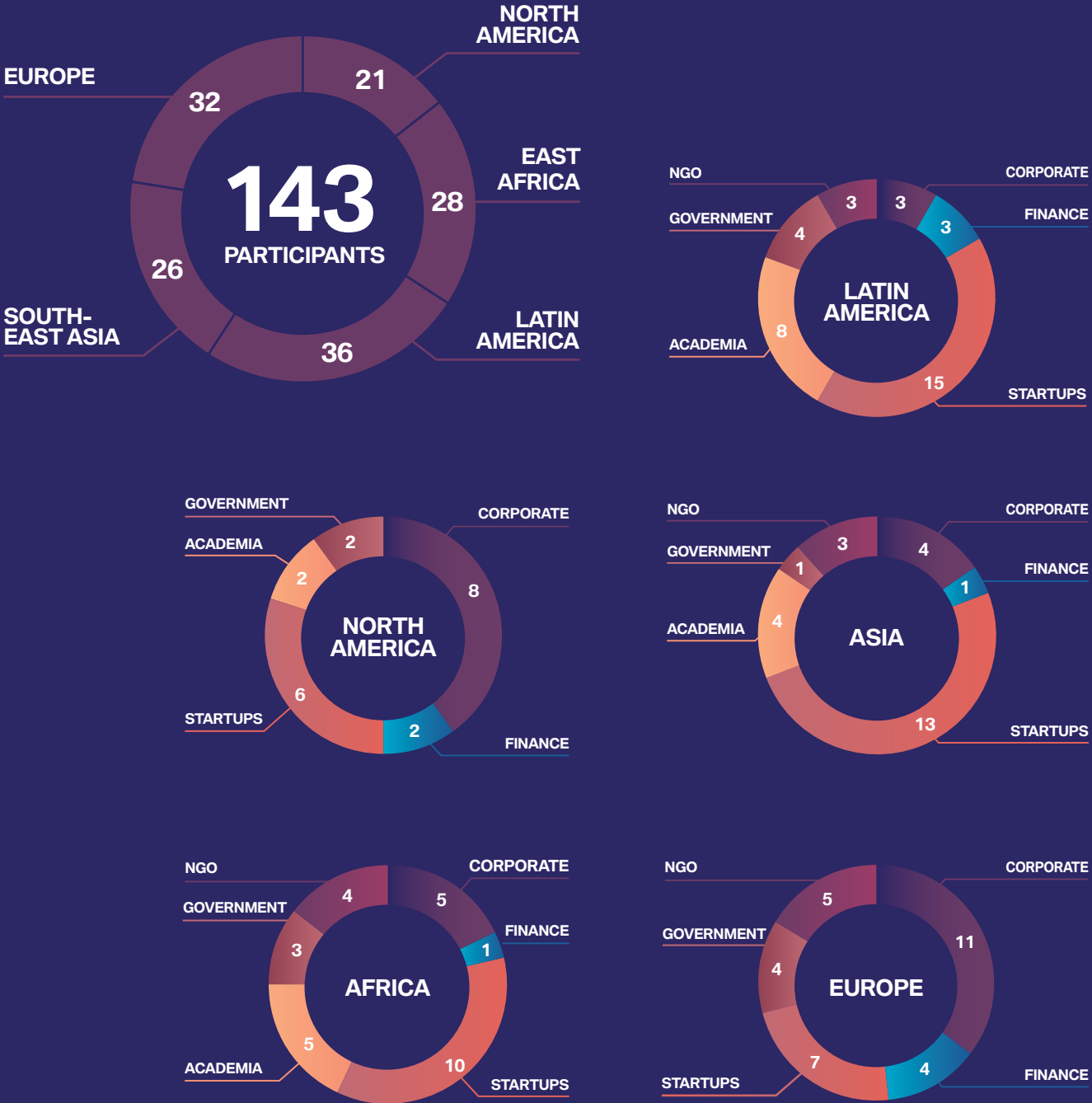




EVERY DAY, PEOPLE AROUND THE WORLD ENCOUNTER AMAZING, AND AMAZINGLY BAD, MOBILITY OPTIONS: FROM THE PERFECTLY-DESIGNED FUNICULAR THAT OPENS A WHOLE NEW WORLD TO ANYONE WHO RIDES, TO THE DESIGNATED BIKE LANE THAT ENDS WITHOUT WARNING AND AT THE MOST INOPPORTUNE SPOT. THESE REALITIES INFLUENCE PEOPLE’S BEHAVIORS, AND SHAPE PUBLIC OPINION AND DISCOURSE ABOUT WHAT TYPES OF INNOVATIONS ARE MOST NEEDED TO IMPROVE MOBILITY DESIGN FOR SOCIETY.

IN ADDITION TO THE GLOBAL TRENDS OUTLINED EARLIER, THE FOLLOWING INSIGHTS SHARED FOR EACH REGION ILLUSTRATE HOW LOCAL REALITIES VARY FROM PLACE TO PLACE, AND DIRECT THE FOCUS OF MOBILITY INNOVATORS IN AFRICA, ASIA, EUROPE, LATIN AMERICA, AND NORTH AMERICA.

# WORKSHOP PARTICIPANTS DEMOGRAPHIC DATA





**The North American conversation about mobility innovations is packed with hot-button debates like data privacy, climate change, and decentralization. They are all important issues to dissect, and because they are important, they are understandably sensitive. Amit Pradhan, President of the Silicon Valley Blockchain Society, helps us understand better some of the sensitivities around the latest tech innovations coming from one of North America's most notable innovation hubs, and see what exactly needs to be considered as we set about building a mobility infrastructure for the future.**

## DATA PRIVACY

While calling for more open sharing, expert participants raised concerns about data privacy and ownership, repeatedly asking “Who should own the data, who should have access to the data, and how is the data protected?” Participants largely agreed that governments should play a role in establishing regulations and protocols for data management, noting that a lack of clear policies governing the use of “big data” exacerbates the threat for bad actors to abuse systems.

“There must be greater awareness about data usage, user rights, and data privacy.”

“Open data must also be privacy focused. XPs and Differential Privacy will be so important in dismantling intent-based transport.”

“Cities should own [fleets of] vehicles. They’d then own the data and can decide who they share it with.”

### © DID YOU KNOW

61% of people around the world believe that their government does not understand emerging technologies enough to regulate them effectively (Edelman, 2020)

“Climate-friendly businesses and production that has a carbon-negative approach must be part of future mobility infrastructures.”

“Climate’ needs to be a consistent design principle.”

“We need to reimagine how we behave through social mobility. If we’re going from Point A to Point B, let’s rethink what Point B is itself. Instead, maybe the same goal can be accomplished somewhere else, somewhere that requires less commuting.”

## DECENTRALIZATION

Part and parcel of “community engagement” and “Identity” conversations, experts suggested that more, and more dispersed, mobility hubs would allow people to make frequent, local trips more easily, while still enabling mid- and long-range trips. Here again, themes about social justice appeared, especially around socio-economic lines.

“Distance is a barrier to human development. Commute times take away from productivity.”

“‘Fully-enabled mobility’ will include spatial distribution of people and use-types that is dramatically more mixed - less mobility is required in general as a result.”

“We need to create livable spaces in closer proximity [to where people live] by redistributing space currently used for parked cars.”

## CLIMATE CHANGE

One potential approach to shifting the dominance of Car Culture in North America might be through climate change appeals, some experts noted. Acknowledging both the power of climate change to spur behavior change, and the threats it creates around mobility infrastructure, experts suggested that climate change needs to be a more central issue in mobility infrastructure planning, mobility innovation design, and mobility solution production.

“There is a climate application to every aspect of mobility.”

“From a climate perspective, we need to completely recreate our infrastructure.”



SPECIAL FEATURE



FOUNDER & PRESIDENT, SILICON VALLEY  
BLOCKCHAIN SOCIETY

THE “HUMAN”  
IN HUMAN  
DEVELOPMENT

When we think of mobility for the future, it is important to think of it from a tri-level perspective: a. What it means for our Planet, b. What it means for (smart) cities, and c. What it means for the individual. While planetary and urban challenges abound, I think it is the third level, the Individual, that is most often ignored. We have to re-center our thinking on individuals who are not just part of design thinking, but a primary beneficiary of it. A post-modern society must value individual life not just on the physical land we inhabit but also the digital footprint we are now creating. 600 Trillion gigabytes of annual footprint - and growing exponentially

We must do this through a responsible, free, and choice-based model, where data self sovereignty - meaning Privacy, Agency, and Monetization - is paramount, prized, and protected. Here’s how I see that playing out:

🕒 DID YOU KNOW

92% per cent of people surveyed believe that CEOs should speak out on issues such as ethical use of technology, income inequality and diversity. (Edelman, 2020)

Privacy

The ability of a person to determine for themselves when, how, and to what extent personal information about them is shared with or communicated to others. This personal information can be one's name, location, contact information, or online or real-world behavior.

**Juliet** and another 300 people are attending an in-person event at the Louvre in Paris. Their data footprint tells a clear story of how they got there. Some drove, others took Paris’ crumbling public transit system, some rode their bikes, and many walked, given the central location of the famed museum. Who gets to decide if that data footprint is shareable, with whom and what its value might be? Google? Facebook? The French Government?

Agency

The ability of a person to choose what happens with the data they generate.

If **Juliet** and her 300 co-attendees at the Louvre choose complete privacy, then the data footprint from that event should be invisible – like it never existed. However, if they choose to share this data, then fundamentally it should not reveal any Personally Identifiable Information (PII) and should create monetary benefit to them, or to an entity they choose.

Monetization

The ability of a person to choose if and how their data will benefit them financially.

So how do **Juliet** and the 300 others currently at the Louvre earn an income from their data footprint? Let’s use the not-so-hypothetical example of an AI company called Rainfall, that values, monetizes, and compensates all participants in the value chain (in particular, the original data creator). What story does Julia’s data footprint tell Rainfall? That the event runs from 1-3pm; is hosted by the BMW Foundation; Includes lunch and that the weather is a dry and cold 10 °C. It also tells Rainfall that 140 of these attendees are headed Southwest of the Louvre for their next meetings and most of them walked or took public transport.

So how does this add up for Monetization? Rainfall’s AI contextualizes all of this data without using or storing it.

Rainfall is able to provide Intelligence to the Starbucks, Café Mollien and Illy, all coffee shops in the direction of where Juliet and the 139 other attendees are going to walk past; that a hot coffee promotion is likely an excellent idea between 3pm and 3:30pm that afternoon. Algorithms value the price of this Intelligence, deduct Raindrops (the currency of Rainfall) from the wallet of the participating Buyer(s) and algorithmically allocate these raindrops to the wallets of Juliet and her fellow foot-soldiers, many who might well have stepped into one of these three cafes to get discounted coffees - all in a friction-free, privacy preserving model.

URBAN-X  
PARTNER PROFILE:

MICAH  
KOTCH

MANAGING DIRECTOR, URBAN-X

WHAT MOBILITY ISSUE ARE YOU MOST INTERESTED IN?

How we get from 2% EV penetration to 50% EV penetration by 2030 in the US is a fascinating issue that will require shifts in policy, market signals, and technology development. It will require business model innovation and new approaches to infrastructure finance. I'm also fascinated by the deployment of Mobility as a Service (MaaS) pilots at the city scale, as we witnessed this summer in Pittsburgh, Pennsylvania (US).

HOW DO YOU SEE MOBILITY ENABLING HUMAN  
DEVELOPMENT?

Clean, safe, affordable, and reliable mobility infrastructure is key to job creation and economic development. Without a mix of different zero-emission modes to get from point A to point B, it's hard to see how we hit the 1.5C target recently laid out by the IPCC, or recover the jobs that were lost during the Covid pandemic.

WHAT DID YOU FIND MOST INTERESTING ABOUT THE  
CONVERSATIONS IN YOUR REGIONAL WORKSHOP?

There was a flexibility in the dialogue that didn't cater to absolutism. While much of our popular discourse is dominated by an 'us vs. them' narrative, I found our conversation to be guided by principles of openness, the primacy of facts, and the willingness to consider new thinking and approaches to the evolution of mobility.

🕒 DID YOU KNOW

28% of CEOs cite "absence of market pull" as a top barrier to implementing sustainable business. (Accenture, 2019)



## REGULATIONS

Some experts expressed an appetite for “leapfrogging solutions” that bypass existing public policy and physical barriers to mobility innovations, especially related to financing options. In the same breath, while acknowledging that these innovative solutions may solve immediate transit issues, they warned that new technologies or cheaper construction methods and materials could be sources of new and bigger challenges in the future, citing bridge collapses and prohibitively expensive upkeep as illustrative examples.

“We need to leapfrog existing dealer and financing networks [for major projects].”

“Disruptive solutions > Incremental solutions”

Innovations by definition disrupt things, so I would say this is not a question of mitigating innovators, but of how we develop the flexible and adaptive systems and capacities necessary to robustly vet and monitor alternative technologies, rapidly assess risk, do CBAs, etc. There is nothing new here; this is an old problem that still needs to be addressed. (As a side note, Sandboxing<sup>4</sup> is also taking off in African fintech and perhaps could become more commonplace in other infrastructure and service innovation spaces).

SPECIAL FEATURE

GECI KARURI-SEBINA

**The conversation among Africa’s mobility experts raised a mix of age-old challenges and cutting-edge paradigm shifts that speak to the continent’s unique history and 21st century reality. Ranging from government regulation, to community spaces, to anti-colonial lending practices, Africa’s mobility ecosystem is working to reconcile competing pressures to carve out its own path. Geci Karuri-Sebina, Associate at the South African Cities Network, helps us understand what that looks like from a practitioner’s perspective with her Special Feature.**

4. <https://www.empowerafrica.com/regulatory-sandboxes-in-africa/>

“In Kigali, there isn’t a mature private sector, so people come in and try to help businesses grow, but from the standpoint of ‘quick impact.’”

“There is a lack of funds in local transportation economies...”

“Chinese banks extend loans with no interest - how could a government turn that down?!”

## FOREIGN INFLUENCES

Experts noted the sometimes-unchecked influence of foreign investors and developers in shaping local life and national mobility networks. Concerns focused on two aspects: use of ill-suited or unsustainable, imported construction materials, and second, the prevalence of cheap financing that does not prioritize local buy-in or community engagement during planning processes.

“I believe the major issue hindering better infrastructure is the dependence of African nations from FDIs [Foreign Direct Investments] which are immensely slow and tedious.”

“We need to lose the European mindset ‘if it’s not asphalt, it’s not good.’ For towns like Rubavu and Musanze, the roads made out of volcanic stone have become billboards to showcase the town to investors, foreigners, and others.”

In a place where geopolitics, trade relations and aid already place Africa at the low-end of the power spectrum, it becomes horrific to contemplate a headline such as: “90% of Funding in East Africa Goes to Foreign Startup Founders.”<sup>6</sup> We hope that the space of innovation and technological change also offers the possibility of decolonisation and building greater local agency, making us equal partners in a networked world.

SPECIAL FEATURE

GECI KARURI-SEBINA

6. <https://medium.com/@harriet436/silicon-savannah-or-silicon-valley-90-of-funding-in-east-africa-goes-to-foreign-startup-founders-c8cd894236c8>



“The Rwandan Army is responsible for a large portion of the public infrastructure, and there has been little oversight and planning across the country for larger, regional development.”

“Roads are more than just mobility facilitators. They are where socio-economic activities take place; where people gather, relax, and do business.”

COMMUNITY SPACE

Some workshop participants explained the need for policymakers and developers to reset their understanding about what constitutes “community space,” and the role it plays in enabling social cohesion. First, some experts noted that the definition of a “public space” should be broadened to include the actual transit spaces that people take to get to their destinations, rather than just the destinations themselves.

Second, experts stressed that inclusive public spaces are essential for building strong communities, and that mobility should increase access to all kinds of public spaces. Last, and relatedly, financing options need to empower municipal governments to plan and source infrastructure projects locally as a way to protect local cultures and traditions. Federal or regional governments can then coordinate between municipal projects to ensure cohesive or coordinate systems nation-wide.

I love that this point came out because it reclaims the right to define the city in ways that are fundamentally more inclusive and contextualised. Who says that Kigali can’t close streets<sup>5</sup> for people to exercise on (“bye-bye,” privilege of cars!), or that public space traders can’t be an exciting part of the urban fabric of African cities?

SPECIAL FEATURE

GECI KARURI-SEBINA

5. <https://www.theeastafrican.co.ke/tea/business/rwanda-s-car-free-day-success-attracts-other-countries-1412776>

NORRSKEN FOUNDATION  
PARTNER PROFILE:

PASCAL  
MURASIRA

MANAGING DIRECTOR, NORRSKEN EAST AFRICA

WHAT MOBILITY ISSUE ARE YOU MOST INTERESTED IN?

At Norrsken, we’re most interested in supporting entrepreneurs who are building businesses around clean mobility technologies of all kinds. ranging from electric vehicles, motorcycles, scooters, bicycles and even electric aircraft.

HOW DO YOU SEE MOBILITY ENABLING HUMAN DEVELOPMENT?

Mobility allows us to efficiently and quickly move from point A to point B. When humans are more mobile, they can exchange goods and services faster and cheaper, make new connections, and acquire new knowledge at a scale that is almost impossible to achieve without using mobility machines. All this together means more social progress.

WHAT DID YOU FIND MOST INTERESTING ABOUT THE  
CONVERSATIONS IN YOUR REGIONAL WORKSHOP?

In the Africa Workshop, what struck me the most was the interest in sustainable transportation. This is a field that is growing rapidly despite the relative lack of infrastructure to support the industry. This presents a massive opportunity for entrepreneurs in Africa, and around the world, to tap into.

DID YOU KNOW

By 2050, rail and road transport will account for 25 percent of global freight volume. (European Commission, 2019)



**The mobility innovation conversation happening within Latin America is deeply-rooted in practicalities: How can we achieve this, what will it take, who will do it, and will it be effective. From retrofitting, to politics, to neighborhood dynamics, Latinx mobility experts are keenly aware of the urgency of the challenges they face, and the most likely ways to help the region solve for them. São Paulo’s Secretary of Urbanism and Licensing, Jose Armenio de Brito Cruz, breaks down one specific case for us to demonstrate what really goes into overhauling existing infrastructure for the benefit of a city.**

**RETROFITTING**

Given budgetary, time, and political constraints likely facing urban planners across the region, many Workshop experts posited that Latin America’s mobility future will focus on retrofitting existing infrastructure rather than deploying “leap-frog” technologies that bypass it. One expert described it alternately, framing the path forward not as “what can be added,” but rather “what can be subtracted?” - acknowledging instances where existing infrastructure complicates or confuses mobility, and removing it from the equation rather than integrating it.



“Circular economy,’ ‘Reborn electric,’ and taking advantage of old train tracks are existing models that can help address current infrastructure needs.”

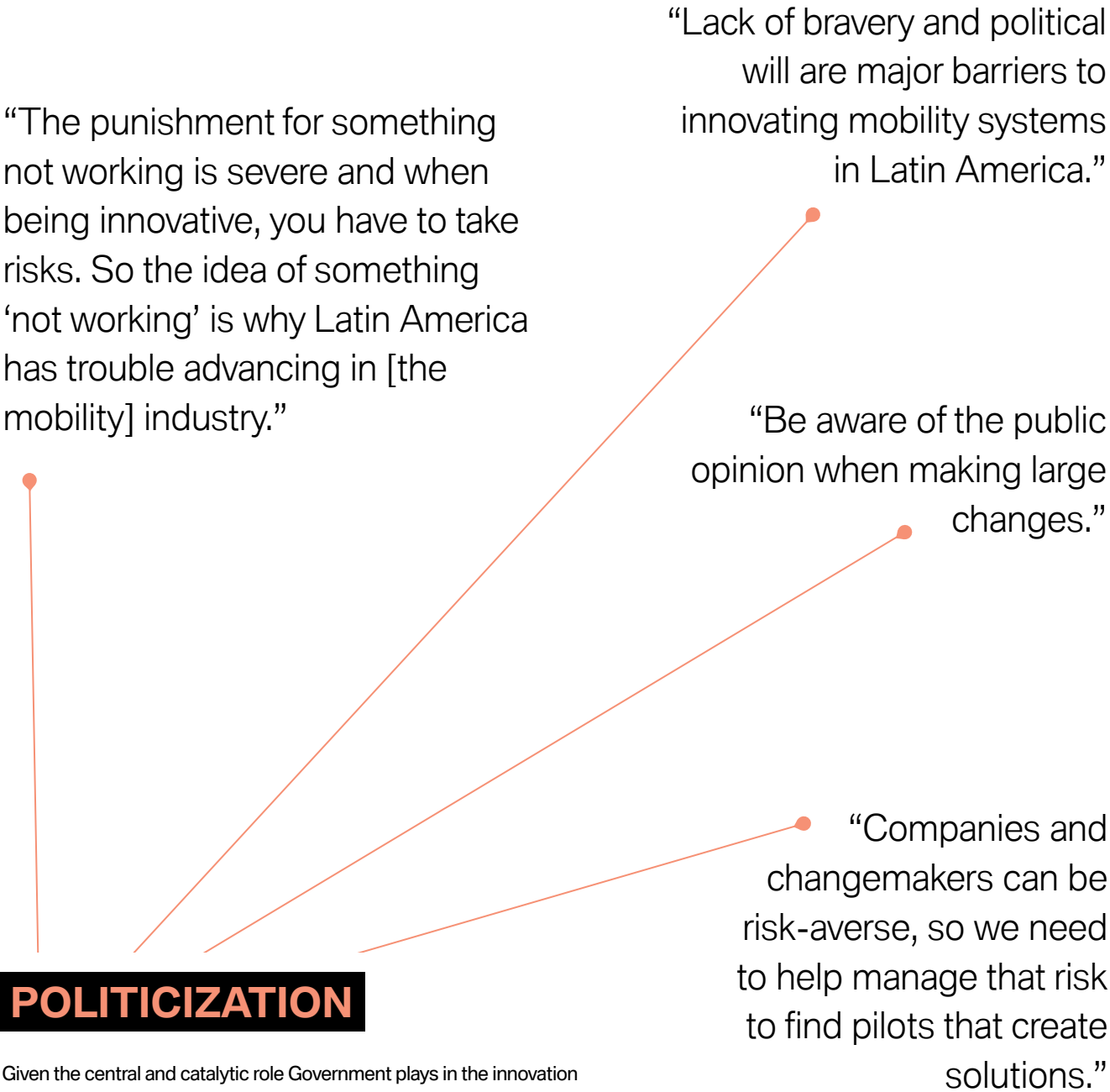
**🕒 DID YOU KNOW**

Latin America has a far higher urban bus ridership than any other region, reaching nearly 20 million daily riders in 2015. (BRTData, 2021)

**POLITICIZATION**

Given the central and catalytic role Government plays in the innovation ecosystem, it is no surprise that experts noted a multitude of “political considerations” that can complicate the process. Noting global trends towards populism, varying degrees of corruption, and occurrences of political instability in the region, experts explained that planning processes at any level (city, regional, national) will likely have to navigate political dynamics.

Of these political considerations, the one most often cited was a lack of “political will” or prohibitive risk-aversion among policymakers. Experts offered that policymakers may perceive any degree of “failure” as a big factor in the likelihood of their reelection. Suggestions of “small-scale pilots” to trial innovations and bypass the “risk dilemma” were floated several times by participants.





HYPER-LOCAL

“We should consider mini-cities within big cities.”

Regarding Latin America’s trend towards urbanization, some experts raised concerns about the mobility challenges posed by megacities. While not unique to the region, Latin America has a higher-than-average concentration of megacities (six, including: Bogotá, Buenos Aires, Lima, Mexico City, Santiago de Chile and São Paulo). These sprawling metropolitan areas can make inter-city travel time-consuming and expensive, especially when critical services or high-demand spaces are not evenly distributed throughout. Experts suggested that mobility planning should reset understandings about inner-city travel, looking at specific neighborhoods within megacities, and building mobility solutions serving needs within those immediate areas; city-wide plans would then coordinate and connect those smaller networks.

Related, some experts noted that a similar approach could be taken at a regional or national level, with cities meeting their own unique needs, and federal policymakers coordinating those systems at a grand scale.

“Latin American cities have gotten too big for their own good...Subdividing the cities into smaller chunks is important because it allows for satisfaction and efficiency for inhabitants and decongests the city.”

“A global problem is that each city has its own agenda and development of infrastructure.”

“We need smaller cities, with surface-level transport for short trips and an underground system for inter-urban mobility.”

DID YOU KNOW

World population will be 9.2 billion in 2050, 2.2 billion higher than today. Urbanization world-wide will reach 70% (United Nations, 2012)

PROCHILE  
PARTNER PROFILE:

SOFÍA DEL  
SANTE D.

TRADE & INNOVATION REPRESENTATIVE, PROCHILE

WHAT MOBILITY ISSUE ARE YOU MOST INTERESTED IN?

The main challenge in Latin America today is mobility infrastructure and how to build a sustainable system for the future. In order to have more equality, and for people to access different opportunities and services, we need to have better infrastructure that can provide citizens this access. In Chile, we are most focused on improving the current infrastructure to decentralize the country’s mobility systems, while at the same time shifting to a greener system using innovation, clean energy, and global partnerships.

HOW DO YOU SEE MOBILITY ENABLING HUMAN DEVELOPMENT?

Mobility is crucial for human development. It is the platform to access opportunities and services that can improve life quality. Mobility is an enabler that allows countries and people to develop in a world that is everyday more connected, and where you need good mobility (physical or digital) that allows you to take part in this accelerated globalization. Nowadays, if you don't have an infrastructure that facilitates international relations and trade, you are not part of an interconnected world where countries improve their competitiveness and work towards sustainable development.

WHAT DID YOU FIND MOST INTERESTING ABOUT THE CONVERSATIONS IN YOUR REGIONAL WORKSHOP?

I was most interested to see that different countries with different backgrounds and levels of development are somehow facing the same challenges, and that most of the solutions to these challenges are available through innovation. But that alone isn't enough. There needs to be interconnection and collaboration between actors to drive change and implement those solutions. This part is constantly missing, so we need to continue building initiatives that help us exchange our ideas better.

# A CLOSER LOOK: SÃO PAULO'S MINHOCÃO

**JOSE ARMENIO  
DE BRITO CRUZ**

**DEPUTY SECRETARY, DEPARTMENT OF  
URBANISM AND LICENSING, CITY HALL  
OF SÃO PAULO**

In 1970, São Paulo completed a massive engineering feat - constructing on location a nearly 3 km elevated highway meant to connect the eastern and western parts of the City.

It did exactly the opposite. The Elevated João Goulart highway drove residents away from the noise, increased traffic jams, and radically changed the physical and social landscape of the City. Poignantly, among City residents, the highway is not known as its proper name, but rather as Minhocão - the “worm.”

In an effort to reintegrate the space into the social fabric of the City, my team has been part of a community-centered initiative since 2014 to convert Minhocão into a public space - working with neighborhood associations, private partners, and city agencies to reimagine the space as a place for exercising, gathering, exploring, and living.

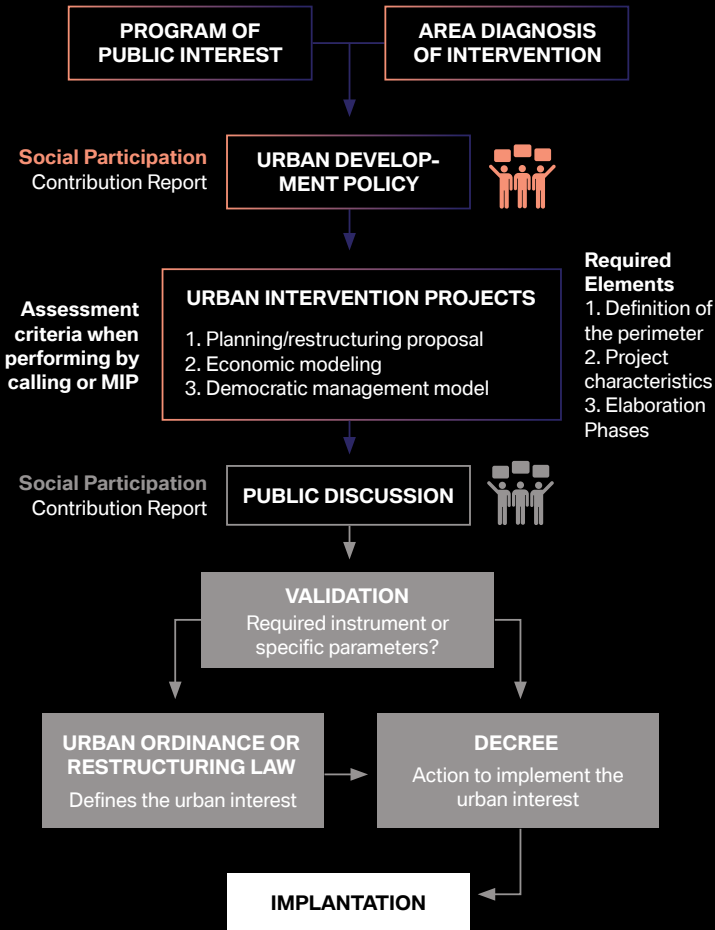


Map of the situation

While we still have work to do, we’ve already seen benefits from our strategic approach. Below are some of the key points that helped guide our journey from a 1970’s playground for cars to a 21st Century space for people:

## 1. Civic Control

We used regulatory tools and a formalized process for involving community members into the project’s development to facilitate stronger civic control and reduce risks of future conflict.



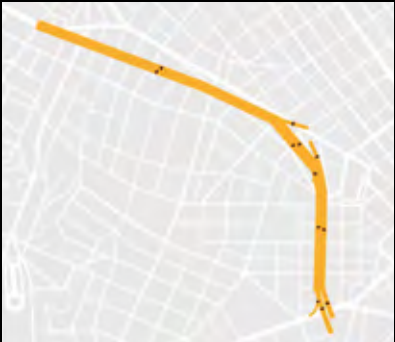
## 2. Responsible Business

While not a major player in São Paulo, we’ve recognized the power of real estate developers to help revitalize the surrounding area in tandem with our work - making sure to account for social housing plans and controlled speculation

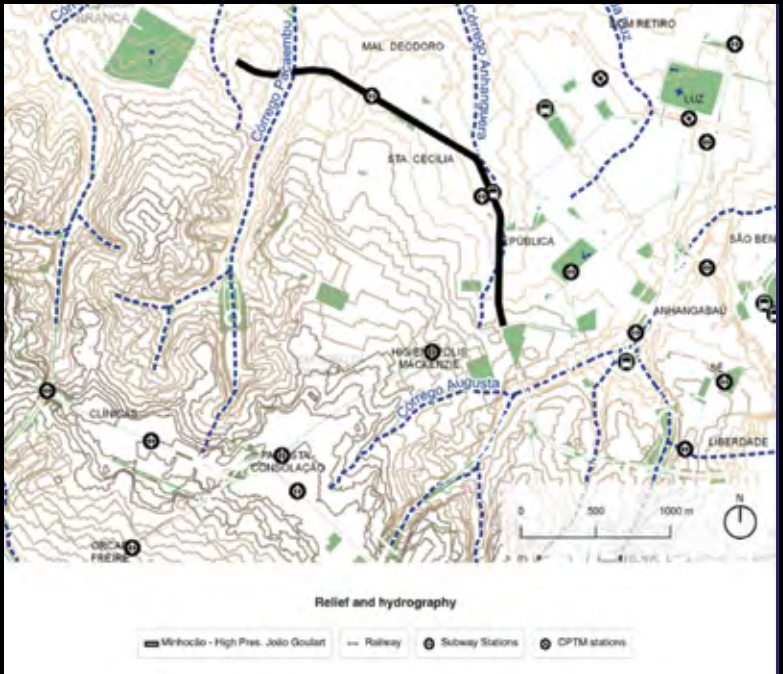


## 3. Sustainability

We have investigated traffic flow trade-offs, topographical impacts, and noise pollution effects to properly assess how the transition from Highway to Park would effect the City and the residents’ quality of life



Map of the vehicular flows at elevated lane level



## 4. Infrastructure & Tech Innovation

At 50 years old, this highway is outdated by decades. The built infrastructure is our subject, and we’re thinking about its future not as a mere replacement of the highway, but as a wholly-new feature of the City that will help correct some of the most significant social and ecological challenges it created when it was constructed in the first place.



Illustration of Triptyque proposal in partnership with landscaper Guil Blanche





## PUBLIC PERCEPTION

Across Asia, participants agreed, there is a problematic overreliance and celebration of car ownership and car-centric infrastructure. This mindset hinders new mobility solutions from taking root, and exacerbates existing social, infrastructural, and environmental challenges. A change in mindset and behavior, they reasoned, would help minimize the importance people place on owning a car, and their perception about how easy it should be to move around in one.

While no experts called for the full eradication of cars, all did agree that more ride-sharing and better-integrated mobility systems with non-motorized options would be critical steps to building a fully-enabled mobility infrastructure. A few participants, harkening to conversations around human-centered design - called out that one way to ease the transition off of private car ownership was to embrace the heritage of car culture in Asian societies, and incorporate aspects of it into future systems.

“Behavior shift from car-centric to collective is a major challenge we have to overcome.”

“Everyone wants to have options for mobility. Walking, biking, driving... We can’t wish for cars to just disappear tomorrow.”

“From the perspective of car owners, scooters and other forms of mobility are invaders on the road. Those cultures and laws and ideas are against micro-mobility. The way people think is challenging for us to make socioecological decisions.”

“Infrastructure has been designed around cars. If you go back 200 years, in some cities in Asia that grew more organically, you see roads that are a lot more dense.”

“We need to deprioritize private car use - more shared and cleaner modes in general.”

“Sometimes it takes recognizing our past and respecting our culture and then adapting to the future.”

### 📌 DID YOU KNOW

Global demand for car-based mobility is likely to increase by 70% by 2030... But, the sector needs to reduce absolute carbon emissions by at least 50% over the same time period. (Accenture, 2021)

After decades of explaining its misdeeds, the private car still has a more positive image than the bus. According to Eurostat, the modal share of buses in the EU fell by 9.6% between 2005 and 2017, while that of the car remained unchanged. (European Environment Agency, 2019)

**The conversation happening in Asia questions how shifts in perceptions can lead to systemic change - whether that’s around prevalence of private cars, public access to personal data, or use of transit space for new and unexplored purposes. There’s a strong thread running between mobility experts that “sustainability” has to be a factor in how people think about mobility and infrastructure, and how more eco-friendly options will contribute to improved quality of life. Christoph Nedopil Wang, Founding Director of the Green Belt and Road Initiative Center, shares more about what that looks like.**

## IMPACT COLLECTIVE PARTNER PROFILE:

# AMARIT CHAROEN-PHAN

ASEAN DIRECTOR, IMPACT COLLECTIVE

### WHAT MOBILITY ISSUE ARE YOU MOST INTERESTED IN?

The burning issue close to my heart is how we can democratize smart mobility to alleviate poverty and inequality in the world. Much has already been said and invested in for leading-edge car companies creating sustainable mobility solutions to their customers. However, these benefits will take decades to trickle down to the rest of the world that are now suffering from the pandemic. We need more solutions for the bottom of the pyramid now as the world cannot wait for batteries to get cheaper and climate change will spare no one but will hit our most vulnerable people the hardest.

### HOW DO YOU SEE MOBILITY ENABLING HUMAN DEVELOPMENT?

Mobility is one of the biggest costs of doing business, and in many emerging markets, it is a barrier to social mobility, and an unfair tax on many people’s physical and mental health, as well as their time. Look at Thailand: despite having many new skytrain and subway lines opening up, the cost of mobility is actually cost-prohibitive given the number of independent operators requiring their own fees. People then resort to riding motorcycles, taking open-air public buses that are overcrowded, pitifully slow and choked full of pollution. By moving to sustainable mobility that not only safeguards the environment but also human life, we will improve the lives of those who use it.

### WHAT DID YOU FIND MOST INTERESTING ABOUT THE CONVERSATIONS IN YOUR REGIONAL WORKSHOP

What I found most interesting is that while there are difference between how we each move, the very essence of human mobility is the same for everyone: we want to get from point A to point B in a safe, hygienic, frictionless, and pleasurable way, with as minimal impact on the environment as possible. I believe that by learning best practices from each of our regional ecosystems, we can accelerate this global revolution on sustainable mobility and trigger similar movements in logistics, aviation, and other industries.

## PRIVACY & INNOVATION

Experts are uniformly concerned about the protection and use of users' data, be it by government or business. Implicitly acknowledging that there is a natural tension between "privacy" and "innovation," experts agreed there needs to be a more robust conversation about how to balance the two, stopping short of identifying specific tradeoffs or potential solutions.

At least one participant noted that concerns about government abuses of data may be overdeveloped; even in countries with strong centralized governments, data privacy laws can be a barrier to innovation and data sharing.

“These mega [mobility and mobile finance] platforms are actually the ones who are executing the usage of the data. The elephant in the room is ‘privacy.’”

“From a data standpoint for China, the data is not as integrated as people would imagine...If it were, we'd have less traffic jams with less people on the ground.”

“And of course there's the issue of 'data privacy...' I feel these are glaring challenges and they are not addressed or talked about like they should be.”

“A fully-enabled mobility system would see mobility as an extension of life, not as a tool.”

## TRANSIT AS DESTINATION

If mobility planners are able to design enjoyable, safe, and accessible solutions that meet everyone's needs, what's to prevent people from using these spaces as actual destinations? That was one provocative vision shared by several experts across the Workshop, who saw mobility infrastructure not just as a utility, but as a social experience.

Interestingly, this vision clashes with common perceptions that “Good mobility means fast mobility.” Instead, understanding what people value - speed, comfort, safety, experience - would help create solutions that avoid assumptions and contribute to innovations that fundamentally shift how societies operate.

### © DID YOU KNOW

63% of CEOs see Fourth Industrial Revolution (4IR) technologies - digital, physical, and biological - as a critical accelerator of the socioeconomic impact of their companies. (Accenture, 2019)

85% in China indicated a willingness to purchase integrated mobility solutions for a flat rate. (Oliver Wyman, 2017)

“As everything becomes connected and autonomous, mobility will be a space that's not work and not home; it will be a quasi-public space where it's shared... It becomes our 'third space.'”

“The Hyperloop is wrong, because you can study, live, work from everywhere in the future. Making movement quicker is not the solution.”



**CHRISTOPH  
NEDOPIL WANG**

**FOUNDING DIRECTOR OF THE GREEN BELT  
AND ROAD INITIATIVE CENTER**

### WHAT MOBILITY ISSUE ARE YOU MOST INTERESTED IN?

I strongly believe that providing sustainable mobility is a major challenge around the world, and particularly in emerging economies. While there are many opportunities to invest in a number of technologies, such as electric mobility and possibly autonomous driving, I think the real goal should be to reduce the use of resources and maximize efficiency through smart planning, relevant policy incentives to accelerate investments in real green technologies, and provide the incentives for a change in individual behavior.

### HOW DO YOU SEE MOBILITY ENABLING HUMAN DEVELOPMENT?

I think mobility has become a development goal in itself to allow people to move freely, safely and quickly. With many travel restrictions during COVID-19, we have seen both the challenges and the benefits of lacking mobility. Key challenges for me are education and the open exchange of ideas that has been hampered, as well as business development opportunities. Conversely, lower mobility during COVID-19 has had social benefits like democratized conferences and meetings run with virtual attendance.

### WHAT CONVERSATION OR DEBATE WITHIN THE MOBILITY INNOVATION FIELD ARE YOU PAYING ATTENTION TO, AND WHY?

I'm watching how battery electric vehicles have seen a surge in sales and are promoted as core to the green mobility revolution. However, as much as these vehicles provide a pathway to a zero carbon emission mobility future, they massively risk destroying the environment. The resources going into the batteries often depend on highly polluting rare-earth mining, while the disposal of these batteries is often haphazard in open landfills, polluting soil and ground water. Rather than the harbinger of "green" mobility, I think battery electric vehicles must take overall environmental impacts into account and alternatives, such as green hydrogen, should be accelerated.





Europe’s mobility innovation conversation broaches the topic from a values standpoint, with discussions about the urgent need for thoughtful actions that align with a larger “social contract” across the continent. From values-based planning, to responsible business practices, to urban and rural dynamics, European experts are exploring how they fit into the bigger picture, and the unique assets they can bring to bear. Yann Marteil, Chairman of Shift4Good, expands further on how he sees Europe acting this out in real time.

📌 DID YOU KNOW

65% of CEOs overall agree that they need to decouple economic growth from the use of natural resources. (Accenture, 2019)

VALUES-BASED

To build more socially-oriented economic systems, experts propose governments, businesses, and civil society articulate a shared set of values reflecting how people really live. Some noted that there is a needs-knowledge gap between decisionmakers and communities, and that before any values can be institutionalized, there first needs to be a common understanding about what those values are. During discussions, several experts offered up values related to data privacy and environmental sustainability.

“Data privacy is a high value.”

“We need increased circularity and EPR [Exploration and Preferential Return] to create a market environment that drives sustainability.”

“We are also having a change in values which will affect the use of technology. The problem is that tech is evolving faster than culture and society.”

In July of 2021, under a sweeping plan to slash greenhouse gas emissions, the European Union announced a de facto ban on sales of all new vehicles with internal combustion engines, including hybrids, by 2035. The ambitious policy package, called "Fit for 55," seeks to cut emissions 55% from 1990 levels by 2030, on the way to the eventual goal of net-zero emissions by 2050. Additionally, the Union is preparing a carbon border adjustment mechanism - a very serious move that sets up a new framework for globalized industries. And guess what?! It is already working! OEMs and suppliers are adapting the plans to scale up battery production, charging infrastructure, or relocating production of some raw materials. It makes me proud of our region and optimistic for our future!

SPECIAL FEATURE

YANN MARTEIL

“We do not really understand where we want to go. We need to figure out where we want to go.”

ESG

Closely related to concerns about environmental sustainability, some experts raised questions about the role Business plays in acting on values-based goals. While discussions did not focus on investment vehicles, they did explore ESG-related topics like Sustainability and Board diversity, suggesting that more needed to be done in the private sector to align common practice with shared social values.

“A big barrier to scaling solutions are business models built on profit vs. for sustainability.”

“Some challenges facing us are that current board structures (not diverse enough) do not encourage thinking in new directions.”

“We must overcome being too tech-focused versus rethinking sustainability in business.”

I am always very interested in, but also cautious about, business models which promote a "new mobility approach, more green, more sustainable." I remember Uber claimed its offer would permit you to drop your car and reduce individual transportation, when in reality it created more traffic jams, air pollution and some forms of social decline. I also remember Ofo or Mobike who distributed millions of bikes across European cities, which eventually packed public landfills and polluted pavement, rivers and courtyards with abandoned bikes! However, some companies, like Smovengo in Paris for Velib’ (the largest bike-sharing system in the world), have managed to deliver on their ESG promises. Through a close relationship with the City - both upstream of the call for tenders and in day-to-day program management - Smovengo has been able to change the face of the City and usher in a real plebiscite by its 450,000 users. This has made the City more bike-friendly with 3 times more cycle paths.

SPECIAL FEATURE

YANN MARTEIL

📌 DID YOU KNOW

61% of emerging leaders say that business models should only be pursued if they generate profitable growth and improve societal outcomes at the same time. (Accenture, 2020)

73% agreed that a company can take actions that both increase profits and improve conditions in communities where it operates. (Edelman, 2020)

URBAN & RURAL DYNAMICS

In discussing how mobility solutions can be more inclusively developed, experts offered varying perspectives about what the relationship should be between urban areas and rural ones. Speaking to the challenges around scaling innovations, some experts remarked that digitization can more easily happen in largely-populated areas. Others concurred, adding that urban solutions can be adapted to meet local needs in rural areas.

“...When we think about big cities in Europe, there is a lot more leverage to make digital urbanization happen, but smaller places are a bigger challenge.”

“It is likely that new solutions will start in cities and then begin to distribute out. We cannot do it all at once, but there definitely needs to be ways for rural, poorer communities to be connected.”

“If the city provides open data, then there can be local alternatives. It is important to have local ownership.”

“We can expand human development if we think about how new mobility solutions can bridge opportunities which today are existing in cities only.”

“Rural communities shouldn’t need to come into the city for work daily. They should be able to work from home.”

“On-demand autonomous minibuses in rural areas are a wonderful concept for the future, especially to make sure cities are connected to rural areas.”

Other experts explored how necessary it was for rural residents to travel into urban centers for essential tasks like working. Some saw promise in autonomous innovations that could improve overall ride quality, while others questioned whether a newly-structured economy should require people to move far from home for daily work. At least one expert lamented, “Is it possible to overcome the idea of ‘City Life versus Rural Life?’”

A major challenge in post-Covid society will be to find a socially- and economically-livable and peaceful approach of mobility for workers. I think that part of the solution here is in "immobility." Let's question the purpose of gathering in-person for activities, events, or meetings, so we can organize and manage our companies differently. Let's consider that moving brings lots of constraints: pollution, cost, waste of time, tiredness. And that the norm should be to work from home, where possible, with exceptions made for going to the office. I bet our quality of life would improve, along with the efficiency of our work - and the planet would breathe better!

SPECIAL FEATURE

YANN MARTEIL

DID YOU KNOW

By 2050, it is projected that passengers will travel almost 50 trillion kilometers on urban transportation networks globally. (Arthur D. Little, 2018)





6

**CALL TO  
ACCELERATE**



# CALL TO ACCELERATE

Following RESPOND's fifth and final workshop, a group of experts from each region discussed how best to take action against the lessons learned throughout the process.

Listening to their ideas, and looking at the global trends and regional insights through the lens of Responsible Leadership, the Foundation's identified several gaps in the innovation ecosystems where we feel our network and positioning can serve as unique assets.

These gaps are opportunities where we can move beyond paper, and bring to life the needed shifts for more sustainable and equitable mobility.

Moving forward, we look forward to working with partners, experts, practitioners, and key players to accelerate progress towards the UN's Sustainable Development Goals through:

- Convening

Bringing together critical stakeholders from government, business, civil society, academia, media, and beyond to explore areas for radical collaboration where cutting-edge research, pilot programs, and public opinion can inform context-specific solution design
- Examining

Leveraging the knowledge and expertise of the RESPOND network to put a critical eye towards emerging trends and developments in the mobility space, with the goal of identifying and disseminating practical information, updates, and ideas around the world
- Envisioning

Articulating what responsible leaders in business can do to move the needle on each of the SDGs - and more importantly, how they can do it - based on crowd-sourced values and approaches to global challenges


We are eager and honored to be part of this effort, and hope you will join us in accelerating the kinds of changes needed to ensure a better future for us all!



The members of the Expert Council, Liza Castillo (SLOCAT), Amit Pradhan (Silicon Valley Blockchain Society), Geci Karuri-Sebina (Wits School of Governance - Civic Tech Innovation Network), Yann Marteil (Shift4Good), Christina Gallegos (Skylark) and Frank Niederländer (BMW Foundation Herbert Quandt) at the BMW Foundation office in Munich, hosted by Heba Aguib (RESPOND).

To learn more about how you can be part of these efforts,

 **FOLLOW OUR ACTIVITY ON SOCIAL MEDIA:**  
<https://www.linkedin.com/company/respond-accelerator/>

 **CONTACT US TO EXPLORE OPPORTUNITIES FOR COLLABORATION:**  
[Respond@bmw-foundation.org](mailto:Respond@bmw-foundation.org)



APPENDIX

“Did You Know” Sources

**Accenture (2019)**, The Decade to Deliver: A Call to Business Action.  
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Acknowledgements

Our thanks to everyone involved in producing this workshop series and report:

BMW Foundation Report Team

- Heba Aguib, Chief Executive RESPOND & Executive BMW Foundation Herbert Quandt
- Bennet Barth, Program Director RESPOND at BMW Foundation
- Esben Ehrenrieck, Head of Communications RESPOND at BMW Foundation
- Verena Finkenzeller, Program Manager RESPOND at BMW Foundation
- Thomas Roehrl, Engagement Lead RESPOND at BMW Foundation

MIT Solve

- Gabriella Bianchi, Coordinator, Strategic & Partner Programs, MIT Solve
- Carlos Centeno, Lead, Economic Prosperity Community, MIT Solve
- Alexander Dale, Lead, Sustainability & US Communities, MIT Solve
- Mike Lenihan, Consultant, Strategic & Partner Programs, MIT Solve
- Sara Monteabaro, Director, Strategic & Partner Programs, MIT Solve

Design by

Louise Kanefuku, Woolf Studio

## **BMW Foundation**

Herbert Quandt

### **Berlin Office**

Reinhardtstrasse 58

10117 Berlin

Telephone: +49 30 3396-3500

E-mail: [info@bmw-foundation.org](mailto:info@bmw-foundation.org)

### **Munich Office**

Praterinsel 3

80538 Munich

Telephone: +49 89 382-22501

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