

# Building capacity on informal public transport in African cities: Government officials' experiences

## A VREF-CODATU DISCUSSION PAPER

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**Design**

Gabor Palotai Design, Sweden  
Cover Image Credit

Informal public transport minibuses in Lagos, Nigeria.  
Source: Oluka Levi, via pexels.com

# Executive Summary

## **Purpose**

In recent decades, efforts by governments and development institutions to address problems in the informal public transport (IPT) industry in Sub-Saharan African cities have focused on a relatively limited set of measures. These measures have typically centred on formalising, replacing or displacing IPT, rather than on working with the industry for improved and better integrated services. There is, however, a need to work across both the formalise-replace-displace and improve-integrate paradigms to effect lasting change. This will require a mindset shift, which can be facilitated by appropriately framed and targeted capacity building initiatives.

In the course of 2024, through Codatu's network and with support from the VREF, the authors interviewed 10 government officials working with IPT in the region on their experiences of such capacity building initiatives. During these engagements, the officials were asked to identify IPT-related issues, actions and government capacities to which capacity building initiatives did or were intended to respond. The exchanges then delved into experiences of capacity building initiatives in which they and colleagues in their government units had participated. Their views on opportunities and gaps in the current offer of capacity building activities and resources were also explored.

## **Experiences of capacity building initiatives**

The engagements with officials showed that the task of building the capacity of transport institutions in terms of IPT was very large, exacerbated by limited available skills as well as not having enough people within these institutions. There were, fortunately, also many initiatives in place through which human and technical capacity in the government entities working with IPT could gain technical know-how and participate in peer exchanges on how to navigate the politics of change.

**In particular, respondents noted that**

- **Study tours** provided access to practical examples of public transport systems worldwide, while at the same time underscoring the importance of tailoring solutions to local contexts
- **Workshops** furnished opportunities to foster collaboration, provide practical insights, and address specific topics relevant to public transport development
- **Conferences** gave a platform for dialogue between diverse stakeholders, in addition to raising awareness of trends and innovations in the IPT and broader transport sectors
- **Collaborations with research institutions** gave access to external expertise and resources without the cost implications of hiring external consultants

**By contrast, some reported that**

- Staying focussed during **seminars and webinars** was difficult; webinars were also often attended for the sake of being seen rather than to learn about a particular technical topic
- **Short courses** covered a daunting array of topics, making it difficult to choose which to attend amidst busy work schedules or to know which would be of most practical value
- While **MOOCs** were valued for their convenience, the absence of in-person interaction was a drawback, while finding time to complete them was also a challenge
- **Master's or PhD studies** provided in-depth opportunity for learning, but were long-term undertakings needing both personal commitment and institutional support

Overall, **fatigue** was a significant issue: many of the respondents were overwhelmed with heavy office workloads, making it difficult to prioritise capacity building activities in which they were interested and from which they wanted to benefit. In addition, while many respondents had undertaken further studies, often in civil engineering, they noted a **lack of specialised training focussed on IPT**. Though workshops, conferences, seminars and other knowledge-sharing activities were generally designed to bring stakeholders together for discussions, there was also a **lack of follow-up engagement**, which limited the long-term effectiveness or appeal of these activities.

## Opportunities and gaps

An important way to address human and thematic capacity gaps in the public sector is through courses and training **programmes co-designed and run with local beneficiaries**. These programmes should go beyond topics such as light rail or BRT to delve into the reality of IPT, which is often overlooked in internationally-run programmes.

To be effective, these programmes must address capacity building that include people **beyond the more technical roles in government** such as in engineering and operations. This means making concerted efforts to draw in higher-level decision-makers shaping policy as well as mid-level managers overseeing implementation, contracts and negotiations in the same programmes to improve communication and mutual understanding between different role and functions.

At the same time, central government leaders and parliamentarians ultimately make critical decisions about budgets, including those for transport projects. There is a need for targeted capacity building **programmes designed specifically for these decision-makers** to sensitise them to the role of transport systems in people's day-to-day lives.

A noteworthy, if underexplored, avenue for addressing capacity building gaps in IPT is the development of **structured internships and fellowships** in the local or regional private sector, with local, regional or international NGOs, or with regional and international development organisations. Where they exist, these tend to focus on junior staff, but more senior roles can also benefit from such opportunities.

In terms of gaps in the capacity building offer, respondents noted a lack of **tools and resources for collecting, analysing and sharing data** on IPT operations. The purpose of collecting such data is not only to provide a basis for introducing control measures such as operational licensing, but also to assist them to design supportive actions such as providing passenger information or building physical facilities.

Other reported themes not adequately covered in the current capacity building offer include IPT **industry transition** and **dispute resolution**, how to encourage **decent working conditions** and improve **road safety** in the industry, and **practical guidance** to effectively implement IPT improvement and integration measures on the ground.

## Potential ways forward

Local universities are well placed to develop and host **short courses on IPT and its systems context**, drawing not only on their research but also on connections that they have with practitioners and government officials. Importantly, course topics must cover not only infrastructural and regulatory matters, but also social and political issues.

**Workshops** provide opportunity not only for learning and sharing but also for resolving issues and building communication channels. While universities, NGOs and development organisations often host such events, for them to be effective, they must be facilitated by experts with both topic and facilitation experience.

The **master's and PhD degree** offer in Sub-Saharan Africa is limited in terms of topics central to IPT improvement and integration, especially when it comes to fields beyond infrastructure and economics. There is no one stakeholder group that can respond to this need; it requires a collaborative effort between governments, universities and philanthropic or development funders.

**Study visits** remain a valuable capacity building mechanism not least because they remove some of the immediate pressures that participants might otherwise face when they are in the office. Destinations must be carefully selected so as to spur reflection with the home city context. Visits must also be expertly facilitated to ensure that the most is made of what is an intensive and potentially overwhelming experience.

Ultimately, there is space for experimentation in a **collaborative, cross-sectoral partnership** to develop a coordinated set of capacity building activities and resources on IPT that responds to the findings of this paper, and that works with the time and workplace constraints that government officials encounter on a daily basis.

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Cover image: Informal public transport midibuses and minibuses in Lagos, Nigeria.  
Source: Oluka Levi, via pexels.com

## **About the VREF**

The Volvo Research and Educational Foundations (VREF) is the collective name under which four philanthropic foundations work as one to inspire, initiate and support research and educational activities that contribute to new ideas and solutions for developing sustainable and equitable mobility and access in cities. The VREF's overriding goal is to strengthen accessibility for all groups while at the same time radically reducing transport's negative local and global environmental impacts. For more on the VREF, visit [vref.se](http://vref.se).

## **About Codatu**

Codatu is an international non-governmental organisation, created in 1980 in Dakar during the World Conference on Urban Transport. It focuses on promoting sustainable urban mobility in the cities of the South. Codatu's international network mobilises all urban mobility stakeholders (local authorities, transport operators, research centres and universities, consultants, companies, etc.) to facilitate the transfer of skills and knowledge in the field of sustainable urban mobility. For more on Codatu, visit [codatu.org](http://codatu.org).



## Acronyms used in this paper

AFD	Agence Française de Développement (French Development Agency)
AMT	Agência Metropolitana de Transportes (Metropolitan Transport Agency, Maputo)
AMUGA	Autorité de la Mobilité Urbaine dans le Grand Abidjan (Greater Abidjan Urban Mobility Authority)
AUF	Agence Universitaire de la Francophonie (French-speaking University Network Agency)
AUMA	African Association of Urban Mobility Authorities
BRT	Bus Rapid Transit
CETUD	Conseil Exécutif des Transports Urbains Durables (Urban Transport Authority, Dakar)
CPD	Continuing Professional Development
CSP	Cities Support Programme (in the National Treasury of South Africa)
DT4A	Digital Transport for Africa
ENPC	École Nationale des Ponts et Chaussées (National Civil Engineering School of France)
EPT	École Polytechnique de Thiès (Thiès Polytechnic School, Senegal)
ESMT	Ecole Supérieure Multinationale des Télécommunications (Multinational School for Telecommunications, Senegal)
ESP	Ecole Supérieure Polytechnique (Polytechnic School, Senegal)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German International Cooperation Agency)
IPT	Informal Public Transport
LUTP	Leaders in Transport Planning (training programme)
MOOC	Free online course (originally Massive Open Online Course)
NaMATA	Nairobi Metropolitan Area Transport Authority
NGO	Non-Government Organisation
OMT	Observatório da Mobilidade e de Transportes de Moçambique (Mozambique Mobility and Transport Observatory)
PRISM	Partnership for Research on Informal and Shared Mobility
SSATP	Africa Transport Policy Programme
UITP	Union Internationale des Transports Publics (International Association of Public Transport)
VREF	Volvo Research and Educational Foundations

# 1 Introduction: Capacity building on informal public transport (IPT)

The informal public transport (IPT) industry is the main mass transport service provider in most African cities. Reliant on fleets of hundreds to thousands of minibuses, small buses and cars in a given city, these services share a number of characteristics across the continent's borders.<sup>1</sup> Amongst others, services are typically unscheduled, each business tends to own and operate only a handful of the total fleet of vehicles, drivers rent vehicles from owners on a daily basis, and routes are developed by associations of owners or drivers. There are also several common problems in the IPT industry, irrespective of location. These include poor vehicle maintenance practices, limited or no access to finance, long working hours for on-board crews, and strong competition for and in the market.

In recent decades efforts by governments and development institutions to address some of these issues have focused on a limited set of policy levers both for change and for maintaining the status quo. These have been framed largely in a *replace* and/or *displace* paradigm: the informal must either become the formal or be replaced by the formal, thereby displacing the initial service providers (IPT vehicle/license owners, drivers and workers).<sup>2</sup> Typically spearheaded by the introduction of a new bus system, such formalisation efforts have often been accompanied by the creation of a local public authority, department or agency charged with implementing the new service. Examples of such entities include the Greater Abidjan Urban Mobility Authority (AMUGA), the Nairobi Metropolitan Area Transport Authority (NaMATA) and Maputo's Metropolitan Transport Agency (AMT). Development agencies often provide significant portions of the financing needed for developing the new service, and either funds or requires the set-up of the overseeing local public entity.

The replace-displace approach places these public entities in a difficult position with respect to working for better IPT services. Even if much of their effort is concentrated on planning and rolling out a new formal public transport service, IPT will be needed until such time as new formal services become operational. Outside of the limited number of new service corridors, IPT will also remain a crucial part of the urban mobility system in the long run. IPT formalisation is thus likely

<sup>1</sup> See, for example:  
Behrens, R., McCormick, D., and Mfinanga, D. (2016). *Paratransit in African cities: Operations, regulation and reform*. Oxon: Routledge.  
Durant, T., et al. (2023). *Informal Public Transport Routemap and city comparative analysis*. TRANSITIONS Consortium & UKAid High Volume Transport Applied Research Programme.  
Venter, C, et al. (2020). *Public transport system design and modal integration in Sub-Saharan Africa cities s: The state of knowledge and research*. Gothenburg: Volvo Research and Educational Foundations.

<sup>2</sup> McLachlan, N. (2024). *High order considerations in paratransit transformation*. UITP 14th Paratransit Working Group meeting. 8 July 2024. Cairo and online.  
See also Chapters 1 and 10 in Behrens, McCormick and Mfinanga (2016), as cited above.

to be an elusive objective, but one with which the public entity is charged explicitly, as a condition in a funding agreement, or implicitly, on the problematic premise that IPT will eventually disappear. How they work in practice with IPT may not be within this received scope of work.<sup>3</sup>

Nonetheless, these local public entities with responsibility for transport are well-positioned to work on issues in the IPT industry. This work could, moreover, be strengthened by having alternatives to the *formalisation* approach that provide avenues for *working with* rather than *in opposition to* the IPT industry. These approaches may take the form of working for *improvement*, i.e. actions on specific service and business problems in the IPT industry, and for *integration*, on issues of infrastructural, fare, network and passenger information coordination with IPT and between IPT and other transport services.<sup>4</sup> The potential disjunct between the task that officials in public entities are often expected to undertake (formalise–replace–displace IPT) versus what they may need to do in reality (improve–integrate IPT) could be bridged by appropriately targeted capacity building initiatives.

In this context, *capacity* comprises individuals having sufficient functional and technical knowledge and skills, and having enough such individuals to allow the organisation to fulfil its role in society. Functional capacity covers institutional areas such planning, regulation, budgeting and procurement – typically aligning with the units or departments in government – while technical capacity is having the ability and skills within an institution for example to create transport plans, design and operate services or networks, or plan and build infrastructure.<sup>5</sup> Capacity building, in turn, consists of strengthening individuals’ skills and abilities, and at the same time providing a suitable environment as well opportunities and incentives for these individuals to use their acquired knowledge in an institution’s functional areas. Capacity building, thus, has individual, organisational and societal implications.<sup>6</sup>

<sup>3</sup> For an overarching discussion on this topic, see:

Arroyo-Arroyo, F., Van Ryneveld, P., and Finn, B. (2024). *Institutions in motion: learning from the experience of urban mobility organising authorities in Sub-Saharan Africa*. Washington DC, SSATP.

<sup>4</sup> A trio of SSATP reports provides a cross-section of these approaches and their practical application:

Allaire, J., et al. (2023). *Studies of information passenger transport reforms in Sub-Saharan Africa: Kigali, Rwanda*. Washington DC, SSATP.

Salazar Ferro, P., et al. (2023). *Studies of information passenger transport reforms in Sub-Saharan Africa: Dakar, Senegal*. Washington DC, SSATP.

Schalekamp, H., et al (2023). *Studies of information passenger transport reforms in Sub-Saharan Africa: Cape Town, South Africa*. Washington DC, SSATP.

<sup>5</sup> Moawad, F., and Abdul Aziz, G. (2024). *Capacity building in sustainable urban mobility for low-income countries: research on demand and success factors for future supply*. Transport for Cairo & UKAid High Volume Transport Applied Research Programme.

United Nations Development Group (UNDG), (2017). *Capacity Development: UNDAF Companion Guidance*. UN Development Operations Coordination Office.

<sup>6</sup> Mizrahi, Y., (2004). *Capacity enhancement indicators: review of the literature*.

World Bank Institute, Washington DC.

UNESCO, (2001). *Revised recommendation concerning technical and vocational training*. 31st UNESCO General Conference session, Paris, November 2001.

In relation to IPT – or at least public transport generally – there is a range of capacity building initiatives, be it activities or resources, that focus particularly on the individual and institutional dimensions of capacity building in African cities. Prominent examples include the World Bank's Leaders in Urban Transport Planning programme, the UITP Academy's short courses, SSATP thematic reports and workshops, and the several resources and training offerings developed by organisations such as Codatu, MobiliseYourCity, the World Resources Institute and GIZ.<sup>7</sup>

However, at first glance, not many of these offerings provide guidance on how IPT improvement and integration actions might be planned, negotiated and implemented, nor is it possible to gauge what impact these capacity building activities and resources might have had on the work of officials that have participated in them, on their institutions or on their societal environment. Measuring and reporting on the impact of capacity building over time – i.e. beyond an exit survey, or after a development programme wraps up – is not common, or, if such is indeed undertaken, these results are not accessible in the public domain. These limitations mean that it is challenging to answer pertinent questions that arise in relation to capacity building for officials on IPT:

- Which functional and technical capacities do officials in government have in relation to IPT?
- Which capacities need to be built, to deal with which priority IPT issues?
- What is and what is not covered in capacity building activities and resources focused on IPT?
- What topics or tasks would government officials like to have covered in such offerings?
- And, ultimately, what has been the impact of such capacity building from their perspective?

The aim of this paper is to seek answers to these questions, with a view to spurring reflection on current and future capacity building initiatives focused on IPT and with government officials as the target audience. We do this not only by describing the capacity building activities focused on IPT in which officials in African cities have participated, but also by documenting their experiences of participating in such activities. Evaluating the impact of capacity building initiatives from the perspective of government officials working with IPT is a crucial part of strengthening efforts aimed at IPT improvement and integration in African cities.

In the next section of the paper, we set out the approach we followed to evaluate capacity building drawing on input from a selection of officials and experts whose work focused on IPT in many countries in Africa. The next three sections present findings based on engagement with these officials. The first of these, Section 3, describes IPT-related issues, actions and government capacities to which capacity building initiatives do or should respond. Section 4 presents their experiences of capacity building initiatives in which they and colleagues in their government units had participated. Section 5 looks at opportunities and gaps in capacity building activities and resources which emerged from these exchanges, and suggests how they may be addressed. The paper closes with a reflection on potential ways forward to strengthen IPT-focused capacity building offerings.

<sup>7</sup> Transport for Cairo (TfC) conducted an analysis of capacity building offerings and resources, which included public transport in Africa in its scope. See Moawad and Abdul Aziz (2024) cited above.

## 2 Approach to evaluating the impact of capacity building on IPT

The initial idea for this paper arose from reflections in Codatu's professional network on the organisation's involvement in international technical cooperation and capacity building initiatives with national and city partners in Africa. Exchanges with the Partnership for Research on Informal and Shared Mobility (PRISM) and the Volvo Research and Educational Foundations (VREF) in the latter part of 2023, and an internal Codatu seminar on capacity building in January 2024, further helped to frame the topic and focus of the paper. We also undertook a review<sup>8</sup> of the process and outcomes of a two year-long technical cooperation with the Government of Angola, funded by AFD, (the French Development Agency) to support IPT and other mobility improvements in the largest cities in the country. The cooperation concluded in 2024, offering a moment to reflect on the state of the IPT industry and key issues arising, and on what role the cooperation played in building capacity among involved government officials and operators to address these issues. It also served as a preparatory stage for this discussion paper.

In the course of 2024, we engaged with experts in research, development and practice to refine the topic and target respondents further, identify relevant literature and refine our data collection approach. At the institutional level, this included meetings and online exchanges with representatives from the Codatu and VREF networks, SSATP and other international development institutions, Transport for Cairo (TfC), the South African National Treasury's Cities Support Programme (CSP), and the Mozambican Mobility and Transport Observatory (OMT). We also presented our approach to data collection for critical discussion at a session of the 18<sup>th</sup> Thredbo Conference dedicated to IPT as well as at a VREF Mobility and Access in African Cities research forum, both of which took place in October 2024.

The next step was collecting primary data from government officials in African cities who worked on IPT, and preparing to do so in English, French and Portuguese from the outset to allow greater reach and diversity. The abovementioned exchanges not only informed the questions that we posed to respondents, but also helped us to gain access to conduct interviews with them. Recognising that there was much ground to cover in the interviews, but also knowing from previous interactions that target respondents had limited time, the process was split in two. For the first part of the exchange, we prepared a short online questionnaire comprising four questions which did not require elaborate answers. Three of the experts mentioned above - one in government, one in the private sector, and one in the NGO sector - checked the questionnaire's text for accuracy in each language, but we also asked them to review the questions and add or edit pre-defined responses from their sectoral perspectives to facilitate awareness and comprehension.

<sup>8</sup> Schalekamp, H., et al. (2024). Working towards informal public transport improvement and integration in Luanda: process and outcomes of international technical cooperation between France and Angola. Proceedings of the 18th Thredbo Conference, 29 Sep-3 Oct 2024, Cape Town.

We asked responding officials to complete this questionnaire a few days before the interview. It opened with a brief statement reminding respondents of our aims with the research, followed by the photograph on the cover page of this paper to set the scene for answering the questions. The photograph was accompanied by a note that IPT services in the respondent's particular city may also be known as paratransit and be provided by other types of passenger vehicles, such as cars or pick-up trucks. As with the term *paratransit* in English, the equivalent *transport artisanal* in French and *transporte ocasional* in Portuguese may also be interpreted to include the ride-hailing sector typically served by motorcycles and three-wheelers. This wide scope of definition was important for the ensuing questions and, more broadly, to keep to the paper's focus on mass, collective public transport.

A key aim for capacity building in relation to IPT should be to enable officials to address particular issues with IPT operations or services, irrespective of whether the official policy approach is to work with or to formalise-replace-displace this industry. The first question we posed to respondents in the questionnaire was, thus, **to list the most important problems with the IPT industry in their city, metropolitan area or country**. Responses were open-ended, and we asked for at least three such problems to be described.

The second question was **to identify which measures governments had taken to address the problems with IPT** listed in response to the previous question. Respondents could tick off measures from a provided list of options, with a space to add their own (the list can be found in Section 3.2). The options were pre-defined to reduce the complexity and time needed to formulate responses and also to gain input on as wide a range of measures as possible. The measures were derived not only from previous experience, but also through the exchanges with the research, development and practitioner experts mentioned above.

To link their work activities to capacity building, in the third question we asked respondents to indicate **whether they felt that the government department, agency or authority within which they worked had the needed capacity to deal with the IPT problems** they had noted previously, **and to implement all the measures** they selected in their response to the second question.

The final question asked **in which activities respondents or others in their government unit have participated to build their capacity in relation to IPT**. A list of activities was provided, again with an option at the end to note unlisted additions. We started with the capacity building activities identified by Transport for Cairo in their 2024 review,<sup>9</sup> and added to or modified some of these drawing – as with the second question – on exchanges with our experts.

<sup>9</sup> See Moawad and Abdul Aziz (2024) as cited in footnote 5.

After reviewing the responses, we set out to conduct individual online semi-structured interviews of 45 minutes to one hour in duration. In each interview, after a short preamble, we showed the respective official's responses to the questionnaire on the screen, and then delved into such responses guided by the set of questions listed below.

1. You listed [these] IPT problems and these measures that government has taken. Can you tell me which of these measures have helped with addressing the problems?
2. You listed [these] capacity-building activities in which you or colleagues have participated. How have they helped with planning or implementing the measures that you listed?
3. Have any of these capacity building activities been particularly not useful in your work with IPT?
4. Do you think capacity building can help with dealing with the staff and skills shortages that you noted?
5. Are there any big gaps in terms of capacity building activities: activities or topics that should be covered in the future to help you in your work with IPT?
6. Do you have any other comments?

At the outset, we aimed to conduct interviews with mid- to senior-level government officials in transport departments, agencies or authorities in a mix of larger or better-studied cities as well as smaller or less-studied cities. We also aimed to interview officials in national transport departments in some of the countries in which these cities were located. International cooperation and capacity building partnerships are often agreed upon at the national level, but the implementation sites are usually one or more cities. Targeting both national and local respondents in our research was intended to provide different insights from the different geographical/vertical levels/layers.

To further elicit diversity in our findings, we intended to include three such national-local pairs, to represent different levels of action towards integrating or improving IPT (from early to advanced), different levels of establishment (having no, some or well-established transport entities in local government), and different geographical sub-regions (West, East, Southern Africa). We thus identified the pairs of Luanda-Angola, Nairobi-Kenya, and Abidjan-Côte d'Ivoire, with the remainder of respondents being in local government transport entities in other cities with whom we could establish contact directly or through colleagues at the above-mentioned organisations.

We were ultimately able to conduct 10 interviews in the course of September to November 2024, after sending 15 interview invitations by email. We did not receive responses to all of these invitations, while some recipients who accepted invitations did not respond to follow-up messages to find an interview time. As a result, we were only able to achieve one of the city-national pairs of the three for which we aimed, that being Nairobi-Kenya.

Nine of the respondents were in city transport departments, authorities or agencies, while one was an official in the national transport ministry. At city level, respondents were from Dakar (Senegal), Bouaké (Côte d'Ivoire), Accra and Kumasi (Ghana), Douala (Cameroon), Nairobi (Kenya), Huila and Lubango (Angola) and Cape Town (South Africa), while the national official was from Kenya. Three of the respondents were female, and overall, the officials reported holding the following positions:

- Capacity building director for transport
- Director in road and rail transport
- Director of the traffic, public transport and mobility department
- Head of the local transport department (three respondents)
- Municipal technical director
- Senior officer in transport network management
- Senior officer in the public transport unit
- Urban mobility project coordinator

All of the interviews were recorded with prior consent (except for one recording that failed for technical reasons), and we also typed notes while conducting each interview. We then undertook a thematic analysis of the interview responses guided by the research questions and questionnaire's questions and response options as discussed above. The result of our analysis is presented in the next three sections of the paper. Firstly, we examine respondents' views on what capacity building initiatives do or should aim to achieve in terms of IPT. Then, we discuss what the respondents' experiences were of participating in such initiatives. Lastly, we reflect on gaps and opportunities which respondents noted, and which can be the target of further development.



### 3 The task of capacity building on IPT

In this section, we discuss what the responses to the questionnaires and subsequent interviews with respondents revealed as being the *task* of capacity building focused on IPT. This task was explored from three perspectives. The first was which basic issues in their local IPT industry that capacity building should address thematically. The second was what measures governments had planned or introduced to deal with such issues, and that should be supported by capacity building activities and resources. The third perspective was on the human and technical capacities in government that were present or that needed to be built.

#### 3.1 Key issues in the IPT industry and its services in respondents' cities and countries

The table below sets out the responses given to the first question in the pre-interview questionnaire, which asked respondents to list the most important problems with the IPT industry in their city, metropolitan area or country. Space was provided for open-ended responses, with respondents prompted to list at least three problems, though some noted more while others listed fewer. The results were then clustered, resulting in the six thematic headings in the table.

**Table 3-1: Main problems with the IPT industry**

Planning	Governance
<ul style="list-style-type: none"> <li>• Lack of data on IPT operations</li> <li>• Lack of transport planning and plans</li> <li>• Sprawl and peripheral urban development</li> <li>• Disjunct between policy and reality</li> </ul>	<ul style="list-style-type: none"> <li>• Too many stakeholders in IPT governance system</li> <li>• Unclear or conflicting stakeholder agendas</li> <li>• Fragmentation of IPT ownership</li> <li>• Disorganised nature of the industry</li> </ul>
Operations	Support
<ul style="list-style-type: none"> <li>• Inadequate road and passenger infrastructure</li> <li>• Inappropriate vehicle type</li> <li>• Poor vehicle condition</li> <li>• Poor driving behaviour posing road safety risk</li> <li>• Poor service to passengers</li> <li>• Inadequate service coverage and duration</li> <li>• Contribution to road traffic congestion</li> </ul>	<ul style="list-style-type: none"> <li>• Inadequate government funding for IPT</li> <li>• Inadequate funding for government's work with IPT sector</li> <li>• Lack of government projects focused on IPT</li> <li>• Insufficient managerial capacity in government</li> </ul>
Regulation	Awareness
<ul style="list-style-type: none"> <li>• Lack of law/regulatory enforcement</li> <li>• Lack of IPT compliance with regulations</li> <li>• Illegal IPT operations</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of public awareness of how the sector worked</li> <li>• Lack of public awareness of legislation in place for IPT industry</li> </ul>

Across the questionnaire responses and interviews, **the issues with the IPT industry which respondents cited most frequently were the lack of transport infrastructure, inadequate planning for the industry, and the poor condition of vehicles. Governance problems also featured prominently**, particularly conflicts between owners or between different stakeholders in the industry. Many highlighted the lack of law enforcement, where regulations exist on paper but are not effectively applied in practice. Road safety was another major concern among the respondents, with mention of reckless driving, poorly maintained vehicles, and insufficient safety measures contributing to accidents. Additionally, the poor condition of roads was noted as a key issue that slowed travel times, increased vehicle maintenance costs, and increased safety risks. Less frequently mentioned issues included urban sprawl leading to inadequate service coverage, congestion, and, in the words of one respondent, the “unsanctioned occupation of public space” by IPT operators and their vehicles.

**Overall, the issues appear to concentrate around certain – largely expected – themes, namely:**

- Mismatches between enforcement and regulation;
- Disjuncts between policy and planning and the actual IPT system and operating conditions;
- Numerous and uncoordinated stakeholders in the IPT system with divergent views, needs and capabilities;
- Inadequate infrastructure and facility provision for IPT, which government was or should be responsible for; and
- Poor-quality service rendered by the IPT industry.

Some of the reported issues were clearly the responsibility of operators, while others were in the ambit of the government – and respondents did not lay the blame for all these problems only on operators. Indeed, these challenges are fundamentally interconnected, often reinforcing one another. For instance, poor road conditions contribute to vehicle wear and tear, which exacerbates the deterioration of IPT vehicles. Similarly, inadequate law enforcement undermines efforts to address safety concerns and maintain orderly operations, whether on the part of operators or of government.

### 3.2 Government position on and measures to address key IPT issues

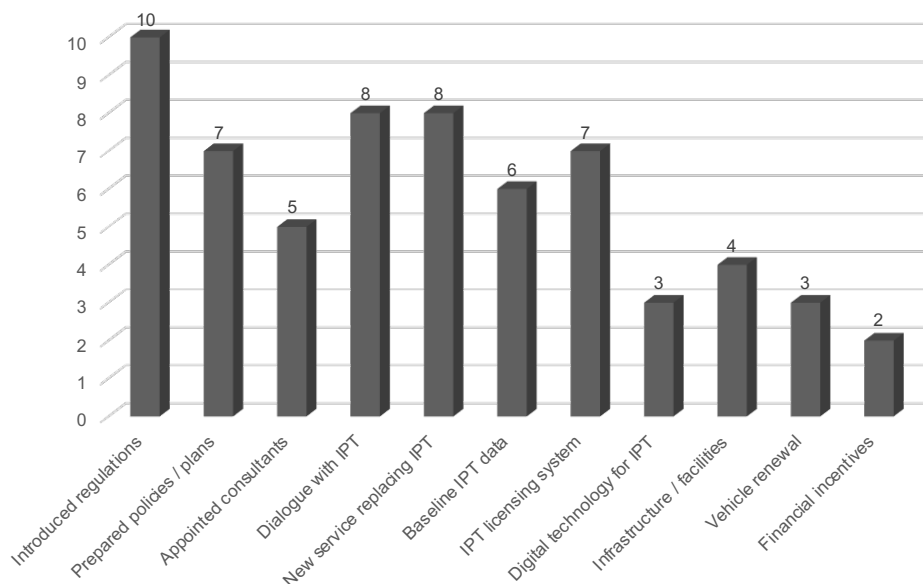
In the questionnaire, respondents were asked to indicate which measures their governments had taken to address issues in their local IPT industry. They were presented with the following list of options, from which they could select as many as desired, and could even add their own. (See Section 2 for an explanation of how the list was derived).

- Introduced one or more laws, decrees and/or regulations
- Developed a policy, master plan, transport plan, or a similar guiding document
- Appointed external experts or consultants to advise us on how to address the problems
- Started a dialogue with stakeholders from the informal public transport industry
- Planned or introduced a new public transport service to integrate with or replace informal public transport
- Undertaken studies to gather baseline data on informal public transport
- Implemented a permit or licensing system for informal public transport vehicles
- Introduced any kind of digital technology to be used by informal public transport operators or passengers
- Provided infrastructure or facilities that supports informal public transport services
- Provided new vehicles or a vehicle renewal programme to informal public transport operators
- Provided financial or tax incentives to informal public transport operators
- Other: \_\_\_\_\_

The measures in the list were ordered first to present policy, planning and regulatory framework matters, then preparations for or introduction of a change in the public transport service model, and lastly those aimed at supporting IPT operations and their businesses.

The figure below shows the responses to this question, in the same order as that of the questionnaire.<sup>10</sup> Respondents were not asked to distinguish between different levels or departments of government in this part of the questionnaire so as not to complicate the response process.

**Figure 3-1: Government-introduced measures to address problems in IPT industry**



The results reveal that the public sector has taken a range of actions, though the extent and focus of these efforts varied. **All respondents indicated that governments had introduced one or more laws, decrees, or regulations aimed at improving the industry** – for example in terms of passenger safety, driver qualifications or vehicle condition monitoring – suggesting that legal frameworks are a widely used tool. A significant number of respondents highlighted efforts to engage stakeholders through dialogue, reflecting an attempt to foster collaboration between the public sector and the IPT industry. Developing guiding documents such as policies, master plans, or transport plans and implementing permit or licensing systems were also frequently mentioned, indicating, at least to some extent, a coordinated approach to formalising and regulating the industry. However, fewer respondents identified measures involving direct investment or innovation, such as introducing digital technologies, providing financial or tax incentives, or implementing vehicle renewal programmes.

Many of these measures, such as introducing laws, decrees, or master plans, reflect an emphasis on regulation and formalising the relationship between the government and the IPT industry. **However, the issues raised by respondents highlight a significant gap between policy design and practical implementation.** This discrepancy shows that the existence of plans or regulations might not be sufficient; their effectiveness depends on consistent application and monitoring.

<sup>10</sup> Two respondents selected the “Other” option and entered their own responses. The one such entry was to provide a fund for vehicle renewal, which was a duplication of the existing vehicle renewal option and was thus reassigned to the latter. The other entry stated that government provided training for moto-taxi riders on road traffic regulations, which was outside the scope of this paper and thus excluded from the figure.

Additionally, the relatively lower prioritisation of direct investments, such as financial incentives, infrastructure, or vehicle renewal programmes, suggests that governments may be focusing more on structural or regulatory interventions rather than direct support for operators or comprehensive, strategic preparations. **The limited use of digital technologies further indicates a missed opportunity to enhance efficiency through innovation.**

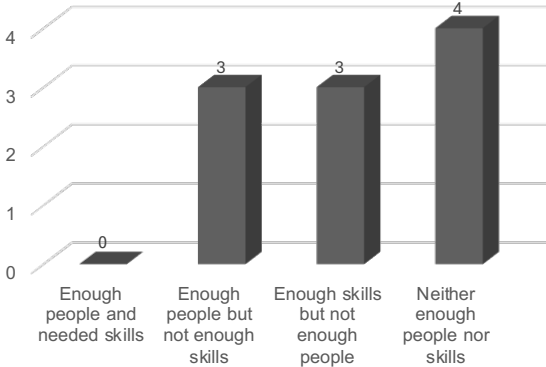
**3.3 Human capacity to plan and implement measures that address IPT issues**

The respondents were asked in the questionnaire whether the government had the necessary capacity to address issues in the IPT industry and implement related measures, both in terms of staff numbers and/or technical capacity. They could choose one of the following four options, which was then discussed in the interview:

- Yes, we have enough people AND all the needed skills to address these issues and implement these measures.
- We have enough people, BUT we don't have all the needed skills to address these issues and implement these measures.
- We have all the needed skills, BUT we don't have enough people to address these issues and implement these measures.
- No, we don't have enough people NOR all the needed skills to address these issues and implement these measures.

As can be seen in the results presented in the graph below, none selected the first option – **none felt that their government unit had both the human resources and the skills required.** Instead, responses were divided among the remaining three options: lacking both people and skills, lacking people but having the necessary skills, and having sufficient people but not the needed skills.

**Figure 3-2: Capacity in own government entity to address IPT problems and implement measures**



## Not enough people

A key challenge in addressing IPT issues is the insufficient number of public sector professionals available to handle the workload. In some cases, a single individual is left to manage extensive responsibilities due to a lack of available staff, whether qualified or simply in numeric terms. For instance, one respondent noted being the only transport expert in the entire municipality, despite overseeing both BRT management and broader mobility issues. Similar challenges were echoed in by other respondents, highlighting the strain on senior officials tasked with managing critical projects with minimal support. This shortage stems from several interconnected factors:

**Cost and funding constraints:** Recruitment is highly dependent on the availability of funds. For example, in Kenya, stable civil service jobs are often less appealing due to lower remuneration compared to consultancy roles. **New recruits prefer consultancy positions, which offer higher pay, making civil service less attractive for new entrants.**

**Turnover:** Retaining trained professionals remains a significant challenge. Overburdened with demanding projects and offered salaries that do not reflect the workload, **many qualified staff members leave for better opportunities.** Additionally, some respondents noted that skilled professionals often migrate abroad where financial incentives are more competitive.

**Overburdened senior staff:** Senior officials face excessive workloads, juggling numerous meetings and project responsibilities. Additionally, they are expected to train junior staff fresh out of university. However, due to staffing shortages, the expected gains and efficiencies from hiring new junior staff are missed because there is no one available to induct and train them. This is because, with their limited available time, **senior officials must choose between training newcomers or completing their own work.** This creates a vicious cycle: without adequate training, junior staff cannot relieve the burden on senior professionals. Despite training in time management and delegation, these structural issues persist.

## Not enough skills

Local governments often cannot afford to hire highly qualified professionals because recruitment budgets are tied to available funds. As one respondent succinctly put it,

“If there’s no budget, the quality of available skills isn’t adequate.”

When local administrations recruit, they are responsible for covering salaries, which discourages hiring specialised talent. Instead, cost-effective but under-qualified personnel are employed. For instance, a respondent shared that

“Three-quarters of municipal employees lack a high school diploma, and some have no formal education at all.”

making it difficult to address complex transport issues effectively. Other, often related, limitations that were highlighted are noted below.

**Reliance on external expertise:** The skills shortage due to budget constraints is exacerbated by **a reliance on external consultants, which perpetuates a cycle of dependency and prevents the development of sustainable, in-house capacity.** As one respondent explained,

“We rely heavily on external consultants and international partnerships because we don’t have the local expertise to address our needs.”

**Recruitment policies:** In some countries, **public servants are hired through general entrance exams that do not assess technical skills by domain.** This approach results in employees with general competencies, but no specific expertise in transport. **Another common practice involves the national government often transferring staff from other departments to local transport units as a cost-saving measure.** While this internal recruitment fills positions without adding new expenses, it frequently places untrained individuals in roles where they must learn on the job, limiting their immediate effectiveness.

**Limited incentives to build expertise:** Another issue is the lack of motivation for some team members to deepen their skills. **Not all staff working in transport departments have chosen this field voluntarily, and their interest in the subject can vary.** A respondent noted that team members often prioritise administrative tasks and meetings over technical ones because promotions are tied to achieving administrative targets (e.g., percentage of budget spent, or number of projects completed) rather than on technical prowess. Similarly, there are cases where **individuals with an interest or expertise in transport are not employed in this field, but rather in roles in administration or information technology, leaving them without a mandate to work on transport projects.** This misalignment not only limits their ability to contribute, but also discourages their active participation in transport-related meetings, further reducing enthusiasm and engagement. These structural barriers collectively undermine the development of transport-specific expertise within government bodies.

**Due to the absence of technical training and structured career paths, many staff members rely on learning by doing to navigate the technical challenges they face on the job.** While this familiarity with local realities can be valuable, it is no substitute for technical knowledge. As one respondent observed,

“They understand informal transport systems through personal experience, but they lack the depth to address broader mobility issues.”

## 4 Experiences of participating in capacity-building activities on IPT

In the questionnaire respondents were asked to indicate all of the capacity-building activities related to IPT in which they or others in their government unit had participated. They could select multiple options from the below list, and add activities if needed.<sup>11</sup> The pre-defined activities in the list were ordered according to duration and/or ease of access, starting with the least time-consuming or most easily accessible activities.

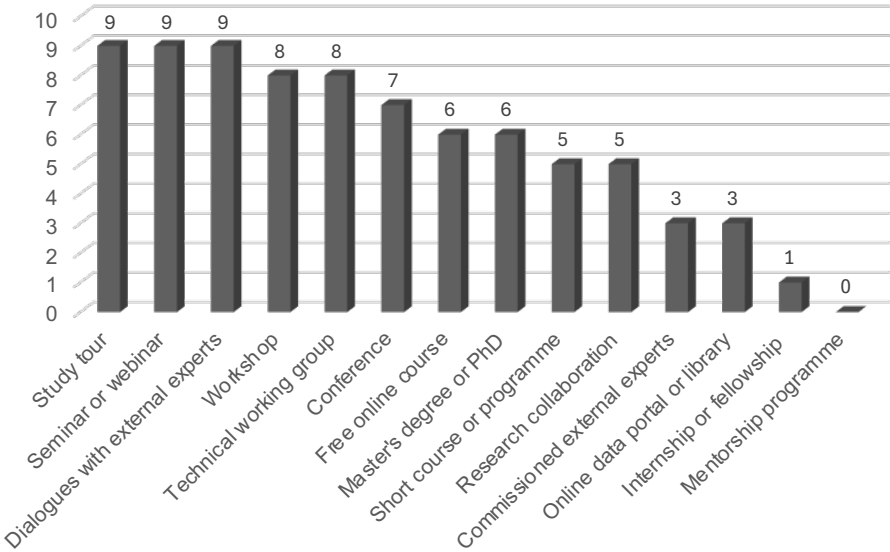
- Seminar or webinar
- Workshop
- Conference
- Study tour
- Free online course (such as a MOOC)
- Short course or training programme (such as a CPD course)
- Internship or fellowship programme
- Master's degree or PhD
- Joined a mentorship programme
- Joined a technical working group
- Research collaboration (such as with a university or NGO)
- Dialogues or meetings with external experts or consultants
- Commissioned a report from external experts or consultants
- Joined an online data portal, data-sharing platform or library
- Other: \_\_\_\_\_

<sup>11</sup> For a detailed discussion of the definitions of the activities discussed in this section, and for examples from practice, see Moawad, F., and Abdul Aziz, G. (2024). Capacity building in sustainable urban mobility for low-income countries: research on demand and success factors for future supply. Transport for Cairo & UKAid High Volume Transport Applied Research Programme.



The figure below shows capacity building activities in which respondents reported that they and colleagues had participated, reordered from the most to least utilised. As indicated, the most prevalent activities were dialogues with consultants, seminars and webinars, and study tours. Some respondents noted that the distinction between terms like seminars, webinars, and conferences were not always clear, which sometimes made it challenging to categorise these activities. Several also had experience of workshops, participation in technical working groups and attending conferences and postgraduate studies.<sup>12</sup> **Conversely, an unexplored opportunity was mentorship programmes, and only one had participated in an internship or fellowship.**

**Figure 4-1: Participation in capacity building activities with links to IPT**



After showing their own (individual) responses to the questionnaire, we asked respondents during the interviews to elaborate on their experiences of these initiatives. We also prompted them to reflect on their responses to the prior discussions on key issues with their local IPT industry and related measures introduced by government. We discuss these responses in the next part of this section. The discussion focuses on the types of activities that appeared to have been the most prominent or had the most impact in the view of respondents. Where possible we also highlight specific activities in which respondents had participated, in which Codatu had been involved or from the literature. Lastly, while several respondents had listed dialogues with external experts as a capacity building activity in which they had participated, during the interviews there was not much exchange on this point, and it is thus not covered.

<sup>12</sup> One respondent selected the "Other" option, indicating having completed a postgraduate qualification in transport and logistics. During the interview, it emerged that this was a master's degree, and it was thus counted with the existing option "Master's degree or PhD."

## 4.1 Experiences of specific capacity building activities linking to IPT

### Study Tours

*- As part of the technical cooperation programmes which it manages, Codatu facilitates study tours for transport authorities and other government stakeholders to visit and draw lessons from other cities. Recent examples include visits by the transport authorities of Abidjan (AMUGA) and Nairobi (NaMATA), respectively in 2022 and 2023, to Cape Town to meet IPT operators as well as local government officials and other stakeholders involved in IPT industry improvement and integration activities.<sup>13</sup>*

Study tours played a significant role in exposing officials to practical examples of public transport systems worldwide. While there were mixed reports of such tours' effectiveness, they were stated as having provided opportunities to benchmark, identify risks, and share experiences across diverse geographies. Respondents highlighted the following:

**Lessons learnt:** Study tours provide valuable insights into governmental shortcomings in delivering public services, enabling officials to anticipate challenges and address gaps in their own plans. One respondent recalled a study visit to Lagos to observe the BRT system ahead of implementing their own:

*"We had included ramps in the design, but during the visit, we observed that motorcyclists did not respect these delimitations. As a result, we redesigned this aspect. The visit allowed us to anticipate a problem we hadn't even identified."*

**Context-tailored solutions:** Many respondents emphasised how study tours helped them realise the importance of tailoring solutions to local contexts. By reflecting on and adapting models about which they learnt or experienced in person during study tours, they avoided replicating systems that might not have aligned with their unique challenges or operating environments.

**Targeted approach:** Respondents found study tours to be most effective when tied to a specific, concrete project or thematic focus. For instance, targeted visits with a clear goal, such as understanding the integration or negotiation process of informal transport actors into formal systems, were deemed particularly valuable. In contrast, broader visits centred on general themes, like observing the overall functioning of public transport in a city, were considered to have less impact. While the sample size is limited, the findings suggest that **aligning study tours with immediate project needs significantly enhances their effectiveness.**

**Knowledge transfer:** A key concern highlighted was the challenge of ensuring effective knowledge transfer after study tours. These tours are typically attended by senior officials, and not the

<sup>13</sup> <https://www.codatu.org/en/study-tour-of-a-delegation-from-ivory-coast-in-cape-town-south-africa/>

entire team working on the matter. While this approach is practical, it places the responsibility on the attending respondents to share their learnings with their colleagues upon return. However, given their often demanding schedules, this transfer of knowledge is not always systematically carried out, risking a loss of valuable insights for the broader team.

**Follow-up challenges:** Another recurring issue is the lack of structured follow-up after study tours. While reports or presentations are sometimes produced, **officials often return to demanding schedules, leaving little time for reflection or action on lessons learned.** This can lead to questions about the long-term utility of the visits.

A few respondents, however, expressed doubts about the usefulness of study tours, citing a lack of insights into possible courses of action or tangible outcomes in some cases. Notably, these concerns were raised by the respondent from South Africa, which can be attributed to the country's more established and experienced transport departments. South Africa has been engaged in BRT development for nearly two decades. With years of experience and learning from their own implementation, study tours to other geographies where BRT efforts were more recent did not offer much opportunity to gain new insights.

## Workshops

*- In April 2024, SSATP organised workshops in Freetown and Kumasi on IPT improvement and integration. Facilitated by local and international experts, the workshops served as a platform for IPT operators and government officials in the respective cities to engage one another around the challenges they faced and to find common ground on the way forward. Building on case studies on IPT reform processes in other African cities, both groups identified a lack of communication as a major hurdle, and ultimately reached agreement on how to address this.<sup>14</sup>*

Workshops emerged as a highly valued capacity-building activity among respondents, particularly the opportunity they furnish to foster collaboration, provide practical insights, and address specific topics relevant to public transport development. Respondents highlighted the following:

**Bringing stakeholders together:** Workshops were appreciated as a platform for convening the entire chain of actors involved in transport systems, including operators, regulators, and planners. This collaborative environment fosters dialogue and collective problem-solving. As one respondent recalled,

"The most important thing [during such events] is the exchange of experiences and, above all, contact with other participants."

<sup>14</sup> <https://www.ssatp.org/news-events/bridging-gap-capacity-building-workshops-freetown-and-kumasi-drive-public-transport>

**Emphasis on practicality:** Respondents particularly embraced workshops that prioritised practical, hands-on learning, challenging them to think critically and apply concepts in a real-world context, such as *What would you do?* scenarios. Respondents found these exercises engaging and beneficial for applying theoretical knowledge to real situations, and by working in groups with different stakeholders, they better understood the different interests and pre-occupations each might have.

**Interactive learning:** Respondents valued the face-to-face interaction that workshops provided, allowing them to ask questions, share insights, and explore solutions collaboratively. This format was often seen as more effective than other forms of interaction. For instance, one respondent described workshops as a “lifeline” particularly when involving external stakeholders, as these events could provide a more neutral setting in which to engage one another on technical and process matters when compared, for example, to a negotiation table or board room that tended to be more confrontational.

## Conferences

*- The African Transport Research Conference was inaugurated in 2024 and held in Cape Town. Supported by the VREF and co-hosted with the Centre for Transport Studies at the University of Cape Town, it highlighted academic research across Africa, and was also attended by participants from the public and private sectors. IPT was an important theme at the event.<sup>15</sup>*

*- The Southern African Transport Conference has been running annually for more than four decades, attended by practitioners, government officials and academics. With a focus predominantly on South Africa, the conference has for much of its existence had sessions dedicated to public transport reform and, in recent years, to IPT.<sup>16</sup>*

Conferences were frequently mentioned as a valuable capacity building activity, recognised for their role in fostering engagement, keeping up with trends in public transport worldwide, and facilitating the exchange of experiences among stakeholders. Respondents emphasised the following:

**Engagement with stakeholders:** Conferences offered a platform for dialogue between diverse transport and mobility actors, including road, highway, and public works authorities. This interaction helped bridge gaps and foster collaboration across sectors.

**Experience sharing and innovation:** Conferences were highly regarded by the respondents for the opportunities they provided to learn about trends and innovations in the IPT and broader transport sectors beyond their own countries or regions, and to inspire decision-making processes:

<sup>15</sup> <https://atrc.co.za/#about>

<sup>16</sup> <https://www.satc.org.za/index.html>

“Conferences allow us to understand what’s happening globally. BRT systems didn’t just appear in Senegal; someone attended a conference, learned about them, and decided to implement them.”

Respondents also valued the peer connections made during these events and the practical insights gained from interacting with others facing similar challenges.

**Follow-up challenges:** A concern raised was that the experiences of and lessons learnt by officials who attended conferences were not always disseminated to their colleagues back in the office. This limited a broader government unit’s ability to benefit from the knowledge and insights shared during the event. However, respondents who did attend such events also struggled with effectively communicating their experiences with colleagues, for example due to information overload and not being able to synthesise what they had learnt.

**Relevance of participation:** Another issue identified was that there was pressure at times from the political or leadership-level on officials – especially those in more senior positions – to attend conferences, even when the topics were not directly relevant to the respondent’s work. This was in order to have a presence at events that were seen as being important, rather than as providing a learning experience.

## Seminars / Webinars

*- There is a large offer of seminars and webinars by local universities as well as other regional and international organisations on, or related to, IPT. SSATP and UITP host occasional seminars and webinars on topics such as fare payment technologies, the introduction of new public transport modes, and capacity building for operators.<sup>17</sup> The VREF also regularly arranges webinars as part of its **Mobility and Access in African Cities** programme, showcasing research undertaken by researchers that form part of its academic network in Africa and further afield.<sup>18</sup>*

Respondents offered mixed feedback regarding seminars and webinars as capacity building tools, highlighting their potential for engagement, but also raising concerns about their effectiveness and follow-through. Concerns raised included the following:

**Challenges with virtual participation:** Webinars, in particular, required a high level of focus. However, when respondents were not physically present, maintaining engagement could be difficult. Many mentioned **struggling to stay fully attentive during virtual sessions, while keeping up with the constant interruptions and calls for input from colleagues in the workplace.**

<sup>17</sup> <https://www.ssatp.org>

<sup>18</sup> <https://vref.se/mac/>

**Ritualistic nature of events:** A recurring critique was that attendance at seminars had become or a ritual or, as one respondent phrased it, “ceremonial.” **Seminars or webinars appeared often to serve as platforms for ongoing dialogue or for raising concerns, but did not assist much in resolving particular project or technical issues.** For example, annual seminar-format dialogues such as urban forums often failed to revisit or address the issues raised in previous sessions, even though consistent attendance at these events was deemed important. **Follow-up:** One noted response was the opportunity to increase the impact of seminars and webinars by going beyond discussions to identifying possible courses of action and sustained engagement with the issues addressed during the event.

### Short courses

*- The World Bank convenes the **Leaders in Urban Transport Planning (LUTP)** programme in collaboration with partner country and city governments around particular transport challenges that they face. Participant are given case studies to read during the initial weeks, after which there is an intensive in-person workshop-style week. A recent example is the Mozambique-Angola LUTP hosted in Maputo in 2022 in partnership with SSATP, and which included IPT and BRT in its scope.<sup>19</sup>*

Short courses as a capacity-building tool received varied feedback. Concerns raised included the following:

**Lack of awareness:** Several respondents were not familiar with the short course format or available offerings, instead asking us (the interviewers) about how short courses were structured and whether we knew if there were such offerings on topics relevant to IPT that they might attend.

**Practical, step-by-step training:** For those who did have access to relevant short courses, the most valued courses were those that provided clear, concrete practical guidance. An example from Accra, where a course focused on how to create a Sustainable Urban Mobility Plan (SUMP), was appreciated for its structured, step-by-step approach to guiding the implementation process.

**Availability to attend:** A key challenge lay in fitting these courses into respondents’ busy schedules, particularly when enrolment was self-initiated rather than officially mandated. The competing demands of daily workplace responsibilities often made it difficult for individuals to allocate dedicated time to such training.

<sup>19</sup> <https://www.worldbank.org/en/programs/leaders-in-urban-transport-planning-program>

## Free online courses (MOOCs)

- *The French-language MOOC **Mobilités Urbaines en Afrique** (Urban Mobility in Africa) was developed in partnership between Codatu, Senghor University, AFD, AUF (the French-speaking University Agency) and MobiliseYourCity. Its focus included IPT from the outset. It was first run in 2020 and repeated in 2022, and relaunched in 2024 with new topics including electrification and public space planning.*<sup>20</sup>

Online courses were reported as offering a convenient and accessible way for respondents to expand their knowledge on specific topics. However, while their flexibility made them appealing, they came with notable challenges that could impact their effectiveness. These include:

**Attention span and work disruptions:** A recurring challenge with online courses was the difficulty of staying focused while simultaneously managing office responsibilities. **Respondents noted that the constant interruptions and competing priorities in a professional environment often made it hard to fully engage with the content.** This issue impacted the participants' depth of learning and retention.

**Absence of in-person interaction:** Many respondents found in-person training more appealing and effective than online alternatives. One respondent highlighted that attending in-person courses fostered stronger motivation and engagement by allowing professionals to step away from their routine work environment when compared to online courses. Such sessions also encouraged richer discussions and networking opportunities, which were harder to replicate in an online setting.

## Master's / PhD degrees

- *An **Inter-University Master's Degree in Transport and Digital Mobility (MiTMN)** is offered in Senegal through a collaboration between the Thiès Polytechnic (EPT), Multinational School for Telecommunication (ESMT), Polytechnic School (ESP), and the Dakar Transport Authority (CETUD), in partnership with the National Civil Engineering School of France (ENPC).*<sup>21</sup>
- *In South Africa, the Centre for Transport Studies at the University of Cape Town runs the **Transport Studies Programme**, which offers several study tracks including taught and research-based Master's degrees and a continuous professional development option. Each teaching module's lectures are concentrated in one intensive week, making part-time studies possible.*<sup>22</sup>

<sup>20</sup> <https://www.codatu.org/en/ressource/mooc-urban-mobility-in-africa/>

<sup>21</sup> <https://ecoledespoints.fr/en/teaching-and-research-collaboration-agreement-field-transport-and-digital-mobility-senegal>

<sup>22</sup> <https://ebe.uct.ac.za/cfts/study-cfts/transport-studies-programme>

While a minority of the respondents were enrolled in PhDs, several were interested in, had undertaken or had completed studies at Master's level. Master's programmes were reported to offer a valuable opportunity for in-depth, long-term capacity building, equipping respondents with skills necessary to address complex transport and mobility issues. Some of the benefits mentioned include:

**Structured expertise:** Nearly all respondents acknowledged the crucial role that Master's programmes played in enhancing their ability, and that of their teams, to address issues in the IPT industry. Even those who had not pursued such programmes recognised their potential benefits for individual development, project outcomes, and the long-term success of institutions. As one respondent noted,

"If we want to tackle immediate problems, short courses and quick interventions are helpful. But they have limitations. We need to invest in long-term training to prepare the next generation to lead and solve these challenges."

**Time constraints for working professionals:** Master's programmes require significant time commitments, which could be challenging for professionals in full-time roles. Institutional support was critical, whether through flexible arrangements or leave policies. One respondent received one week off per month to complete a degree over two years. They remarked,

"Without this specific leave for training, I would not have been able to fully commit. When attempting online courses from my office, I often got disconnected or interrupted by work."

Relevant Master's programmes do not always offer the flexibility to undertake studies in a part-time or block release format (also called an executive education format). Instead, candidates usually need to dedicate themselves to such studies on a full-time basis.

**Personal initiative over institutional push:** Another respondent left their position for two years to complete a full-time postgraduate degree programme in Europe, then returned to the same position upon graduation. This required the respondent to make a strong case for the relevance of the studies and the accrued benefits to the institution, which later financed and supported them during the two-year study leave period.

Other respondents noted that pursuing a Master's degree was often a personal initiative, and similarly had to justify and defend their decision to undertake such studies to their institutions. However, it was a more common situation that they had to cover the expenses for their studies from their own pockets, resulting in a significant personal cost for the opportunity to acquire beneficial skills and knowledge.



**Funding challenges:** Overall, access to funding or financing for advanced studies remained a significant barrier. While some respondents benefited from institutional or donor support – such as the above respondent who received not only specific leave from their department to study part time but also funding for it as part of an international cooperation agreement – being able to undertake such studies depended closely on the availability of funds.

**Continuity and retention issues:** One respondent stressed the key issue of knowledge retention following such studies. Even after obtaining advanced training, professionals could be re-assigned to other responsibilities – ensuring professionals remained in the sector post-training was crucial for impact sustainability. For example, the respondent from Angola who completed the Master’s degree was promoted to a senior political role shortly prior to being interviewed, limiting her involvement in transport projects as the new role spanned across departments.

### Technical working groups

– **Digital Transport for Africa (DT4A)** is a digital commons and global community facilitating access to open data, peer-to-peer knowledge-sharing and data collection tools relevant to IPT and other public transport services in Africa. It was set up by the World Resources Institute, AFD, the World Bank and several university and other partners. Besides organising technical sessions on digital data tools and use, amongst others, DT4A has also supported small projects, such as those selected through its Innovation Challenge.<sup>23</sup>

Respondents shared some experiences of being part of technical working groups, highlighting their potential to support knowledge-sharing between public transport practitioners and across sectors.

**Cross-sectoral collaboration:** In one respondent’s city, for example, unions and other transport organisations decided to establish a dedicated working group on mobility, integrating a diverse range of representatives from among private companies, policy-makers, technical experts, civil society, and IPT operators. This structure ensured that multiple perspectives and expertise were considered in designing and implementing projects impacting on the IPT system.

**Regional and thematic exchange:** Another example of such a measure put forward by one respondent was the creation of the World Bank-supported African Association of Urban Mobility Authorities (AUMA), which contributed to collective problem-solving across borders, and was particularly valued for tackling shared issues in urban mobility on the continent.

<sup>23</sup> <https://digitaltransport4africa.org>

## Research collaboration:

- *The Partnership for Research on Informal and Shared Mobility (PRISM) is a global consortium of universities and NGOs funded by the VREF. PRISM is conducting research and setting up living laboratories through which to collaborate with local public and private sector stakeholders to find ways to address labour, service, access and other issues in IPT and other shared mobility services. PRISM focuses on eight cities, three of which are in Africa (Accra, Cape Town and Kumasi), with the remainder located in Asia and Latin America.*<sup>24</sup>

Several respondents mentioned the value of having participated in research collaborations. Respondents highlighted partnerships with NGO-type organisations, such as UN-Habitat, Codatu and the International Public Transport Association (UITP), as well as with local universities – with specific mention of the latter by respondents from Kenya and Ghana. Even respondents who had not directly participated in such collaborations acknowledged their potential value, but some limitations were also noted.

**Knowledge exchange:** It was reported that these partnerships provided access to expertise and resources that were not available within the respondents' own institutions, without the cost implications of hiring/contracting external consultants. Research collaborations also created opportunities for co-developing innovative solutions tailored to local contexts, such as a public transport working group anchored by a local university in Ghana.

**Thematic limitations:** One of the respondents had reservations about the relevance of a living laboratory anchored by a local university. The laboratory was supposed to bring together researchers and practitioners from different disciplines to have structured exchanges on locally relevant urban development and transport matters that were of interest to the collective membership. While the respondent advocated for discussions on public transport, exchanges tended to centre on engineering matters, and roads in particular, leaving those from other disciplines feeling excluded. The respondent suggested that collaborations of this nature must be well-set up and managed "to bring about the change that [all participants] want."

<sup>24</sup> <https://prism.climate.columbia.edu/content/global-consortium>

## Mentorship programmes

None of the respondents had participated in a mentoring programme, and this type of activity was also not mentioned much in the interviews. One respondent did emphasise that mentoring could be valuable in addressing urgent challenges, offering practical guidance on how to tackle pressing issues effectively between more and less experienced individuals.

**Hands-on support:** It was mentioned that mentoring within the same institution could provide guidance that helped staff to learn by doing. It could facilitate knowledge-sharing and ensure that skills remained within the department, even after the mentor departed, contributing to long-term capacity building.

### 4.2 Reflection on experiences with capacity building linked to IPT

Respondents' feedback across the different capacity building activities revealed common challenges that they faced and reflected on in the course of the interview. Fatigue was a significant issue, as many of the respondents in their roles as senior officials were overwhelmed with heavy workloads, making it **difficult to prioritise capacity building activities in which they were interested and from which they wanted to benefit.**

Additionally, while many officials had undertaken further studies, often in civil engineering, **there was a notable lack of specialised training in transport and mobility, let alone public transport or IPT.** As one respondent aptly put it:

“Transport and mobility are not just about concrete; you need to know how [what you build] is used [by actual users].”

Moreover, where capacity building activities did focus on public transport, IPT was rarely treated as a stand-alone topic despite its importance in urban mobility systems, and the many issues with the industry and its services.

As previously stated, the main problem areas which respondents identified in relation to IPT were limited facilities and infrastructure, mismatches between regulation and enforcement, dissonance between policy, planning and implementation, multiple stakeholders with divergent interests, and IPT services quality issues. From the interviews, it was clear that capacity building activities primarily addressed issues related to stakeholder coordination in the IPT system. Workshops, conferences, seminars and other knowledge-sharing activities were generally designed to bring stakeholders together for discussions, but measuring their real impact remains challenging. **A notable issue was the lack of follow-up engagement, which limits the long-term effectiveness or appeal of capacity building activities.**

Regarding the key challenge of insufficient provisions for IPT, capacity building activities served as platforms for sharing practices, aligning government responsibilities with effective intervention in the IPT system, and offering policy recommendations. Experience-sharing initiatives, such as exchanges during study visits with cities that have implemented successful IPT policies, could help government representatives understand how similar challenges were addressed in other regions and gain the tools and skills to evaluate their contexts' exact needs. However, capacity building was also constrained by institutional arrangements, as local government officials in transport departments typically did not have direct control over budget allocations to their government unit or specific thematic areas such as public transport or IPT. While respondents acknowledged the lack of infrastructure and facility provision, their ability to take concrete action was curtailed.

When it comes to the mismatch between regulation and enforcement, targeted workshops and conferences focusing on regulatory frameworks could improve the capacity of both local authorities and IPT operators to understand the importance of effective enforcement. Sharing practical examples of successful regulatory implementation could further strengthen these efforts. However, one challenge persisted: although officials in transport authorities were aware of the need for proper legislation, enforcement typically fell under the jurisdiction of separate entities such as national regulatory bodies or law enforcement agencies (e.g. police). Therefore, while officials in transport authorities might have benefited from their participation in capacity building activities focussing on regulatory issues, the individuals in government units with an actual regulatory function were not necessarily also present at or invited to such activities.

Lastly, the disconnect between policy, planning and the actual IPT system could be partially addressed through academic programmes and targeted workshops focusing on regulation and planning. Mentoring also has the potential of playing a significant role in bridging this gap. However, the effective implementation of policies relies heavily on the allocation of appropriate resources and strong enforcement mechanisms. These elements are interconnected, and while capacity building can contribute to addressing them, training transport officials alone is not sufficient to guarantee lasting impact.

## 5 Building on opportunities and addressing gaps in capacity building on IPT

In this section, we reflect across the interviews to identify opportunities for building on existing capacity building initiatives, highlight gaps in the current offer of activities and resources and how they might be addressed, and note roles that local and international stakeholders do and can play – all with the aim of achieving improved and better integrated IPT.

### 5.1 Opportunities to strengthen the capacity building offer on IPT

The interview exchanges have identified that an important way to address human and thematic capacity gaps in the public sector can be through **courses and training programmes co-designed and run with local beneficiaries**. Local programmes are a critical step toward addressing this scarcity of transport-specific expertise, ensuring that public sector actors are better equipped to tackle complex transport challenges and bridge significant knowledge and skills gaps. As one respondent observed,

“There are very few transportation engineers in [my country], and it is only recently that the need for transport as a sub-discipline in civil engineering was acknowledged.”

Furthermore, locally run or developed programmes may counter “brain drain,” as young professionals often remain abroad after studying overseas. By developing robust local programmes, talent in the transport sector might be better retained within the region, thus fostering long-term capacity building and nurturing successive generations of skilled transport professionals.

Such programmes must, however, also go beyond topics such as light rail or BRT – they have to delve into the reality of IPT, which is often overlooked in internationally-run programmes due to differences in local contexts and priorities. By tailoring training programmes to the specific demands of IPT, these programmes can ensure relevance and applicability for professionals working in African contexts.

While the gathered evidence suggests that there is interest among officials to have such initiatives, the current offer remains limited. This presents an opportunity to strengthen and scale these solutions through greater support and investment, ensuring they become a cornerstone of sustainable capacity building in the IPT industry. At the same time, to be truly effective, these programmes must also address **capacity building across multiple levels within the transport sector**. This includes not only more technical roles, such as in engineering and operations, but also higher-level decision-makers shaping policy and mid-level managers overseeing implementation, contracts and negotiations. By ensuring training is inclusive of all these layers, such pro-

grammes may enable the creation of a more cohesive and well-equipped workforce capable of driving meaningful and sustainable transport development.

Another noteworthy avenue for potentially addressing capacity building gaps in IPT is the development of **structured internships and fellowships**. While not a widely mentioned activity in the interviews – perhaps because respondents saw this as an activity for more junior staff or because of a limited offer – such opportunities could effectively tackle several issues raised by respondents. These programmes could allow individuals to gain hands-on experience within other organisations, addressing the need for learning-by-doing and providing practical exposure in other well-established institutions/organisations. Unlike study tours, which often focus on broad concepts and high-level comparisons, internships could immerse participants in-depth in the day-to-day operations and organisational practices of other contexts. Placements could, for example, be explored:

- In the local or regional private sector, e.g. with established bus operators or consultancy enterprises involved in reform processes;
- With local, regional or international NGOs, such as those overseeing transport-oriented collaborations or focused on particular topic areas such as labour practices; or
- With regional and international development organisations, whether in development finance, at the level of policy and planning, or with other thematic foci.

Whichever opportunities might be explored, establishing internships and fellowships aligns with the need for implementation guidance and creates opportunities to learn from the successes and challenges of others, fostering the transfer of practicable lessons to local contexts.

## 5.2 Gaps in the capacity building offer on IPT

While respondents did not report using data portals and research collaborations much as capacity building tools, when we questioned them on gaps, the foremost response was that they felt there was lack of **tools and resources for collecting, analysing and sharing data** on IPT operations. The purpose of having such data was not only to introduce control measures such as operations licensing, but also for supportive actions such as providing passenger information, or facilities:

“If I had the needed data on IPT when the contract came to build a new terminal, we would have been in a better position to design it properly.”

Respondents clearly understood the need and uses for a variety of such data, but indicated a need for assistance in gaining access to or developing such data portals and tools, or through development of research collaborations and training programmes that addressed this gap. It was also noted that enhanced data interpretation skills would improve the

relevance of analyses, which is valuable information to provide for donors and other stakeholders working on IPT.

Another important gap identified in multiple interviews concerned **capacity building for high-level policy-makers and officials**. While much focus is placed on training local government officials and practitioners at the technical level, it is those at the top – central government leaders and parliamentarians – who ultimately make critical decisions about budgets and transport projects. However, many of these decision-makers lack technical training on IPT and urban mobility, yet their influence shapes policies and resource allocation. As one respondent concisely put it,

“We need to build the capacity of practitioners, yes, that’s important, but we also need to train policy-makers.”

This highlights the need not only for targeted capacity building programmes designed specifically for policy leaders to help them better understand the role of transport systems in people’s lives, but also for **effective communication platforms between transport institutions and decision-makers**. For instance, a programme for parliamentarians could equip them to ask informed questions when evaluating local transport department budgets and provide opportunity for dialogue with the responsible transport officials, enabling both stronger oversight and strategic alignment between national and local priorities. Practical capacity building initiatives, tailored to their roles, could be instrumental in fostering a deeper understanding and encouraging a more proactive approach to restructuring and supporting transport systems at all levels of government.

A few further issues were raised that present important gaps in capacity building in IPT, along with suggestions pointing to how they might be addressed:

**IPT industry transition and dispute resolution:** Respondents emphasised the sensitive nature of negotiating with the informal sector, often expressing the need for guidance on how to approach discussions about integrating the IPT industry and scheduled public transport services. There is a significant gap in skills to navigate these conversations, particularly in managing risks and ensuring effective stakeholder engagement throughout the process.

**Involvement of frontline government workers in capacity building:** One respondent made a point that many essential daily tasks were carried out by staff in their government units, such as administrators and technology support staff, who were not typically included in capacity-building efforts. Involving them more directly in capacity building activities would improve overall effectiveness.

**Road safety:** Road safety, which is deeply tied to human behaviour, needs a stronger focus. Respondents expressed the need to improve training for staff working directly in the transport system to address safety issues effectively.

**Decent working conditions in the IPT industry:** A key gap in capacity building – this time concerned directly with stakeholders in the IPT industry rather than government officials working with IPT – is addressing negative perceptions of informal transport workers. Improving how these workers are viewed by society was noted as being an essential equity consideration. Capacity building initiatives, such as certification programmes supported by government and training institutions, could help recognise and improve such workers’ skills, in turn improving their working conditions and status in society and fostering channels for collaboration with other transport service providers.

**Implementation guidance:** A key gap identified was the lack of practical guidance on how to effectively implement activities. Respondents noted that while a growing number of offerings on IPT topics were being made available, there was often insufficient direction on how to concretely carry out these activities on the ground.

### 5.3 Stakeholder collaboration to strengthen capacity building in IPT

The interview exchanges confirm that addressing knowledge gaps in urban transport, particularly in IPT, require **a collaborative effort from organisations in different sectors including government, private enterprise, NGOs and international development**, each contributing their strengths to tackle technical gaps such as data collection and analysis, as well as functional capacities and skills in areas such as negotiations and dispute resolution mechanisms. Local universities – where they are present – can play a central role in developing contextually relevant programmes tailored to African realities while also engaging in strategic partnerships with international universities. This highlights the crucial role of the academic sector as a primary actor in capacity-building.

There is also a strong call for international collaboration, with many respondents emphasising the need for **partnerships between universities across the continent and those abroad**. For example, partnerships like the Dakar Transport Authority (CETUD) Master’s programme in collaboration with École Nationale des Ponts et Chaussées (ENPC, the National Civil Engineering School in France) and a collection of Senegalese engineering schools, or the transport Master’s programme at the Institute National Polytechnique Félix Houphouët Boigny, a university in Côte d’Ivoire, also in partnership with ENPC, were mentioned by several respondents.

Finally, in addition to the academic sector, the World Bank, AFD and other **development agencies and financial institutions play a pivotal role** by providing financial backing and technical support for capacity building initiatives. For instance, one respondent was able to complete their Master’s programme with full funding from AFD, which improved the municipality’s ability to manage mobility projects more effectively. This example illustrates how collaboration between various institutions, including academic bodies, development agencies, and local governments, can enhance capacity building efforts and address critical knowledge gaps in the transport sector.



## 6 Potential ways forward for capacity building on IPT

The task of building the capacity of African transport institutions in terms of IPT is very large. Not only are there many cities on the continent, but they each have their distinct mix of inter-related IPT, mobility and urban development challenges. The measures which different governments are exploring or implementing to address these issues are also diverse. Supporting the capacity of officials who work in such contexts is a massive undertaking.

Fortunately, there are also many initiatives through which human and technical capacity in the government entities that work with IPT is being supported and expanded. From courses, workshops and seminars to data portals, research collaborations, working groups and study tours, there are many activities and resources that officials can make use of – not only to gain technical know-how, but also to have peer exchanges on how to navigate the politics of change.

However, just because these activities and resources are available, does not mean that officials who can benefit from them are actually in a position to do so. In many instances, officials' portfolios include not only public transport, let alone IPT, but all aspects and modes of urban transport and mobility. The demands on such often-small – even one-person – teams of officials' time are numerous and varied, such that they may only have a small part of their day to spend on actual policy, planning and implementation work. The majority of a workday, as our respondents reported, can easily be spent between inter-departmental meetings, last-minute ministerial speechwriting or budget presentations. Finding time for participating in a seminar, let alone degree-purpose studies, is big task. Yet, officials find time to do so.

We set out to write this paper to describe what their experiences were of building their own and their institutions' capacities to work on and with IPT industry stakeholders and other local and international organisations that support such work. We were privileged to have had ten such officials from all over the continent generous enough to share their views with us, and to have the VREF, Codatu and several other networks and individuals supporting us in this task. Not only did this help us gain the many valuable insights presented in the paper, but it also showed that there were indeed many people dedicated to always learning more and to working towards bettering IPT.

Of course, this raises more questions. Which of the many capacity building initiatives that are available could be strengthened to be even more supportive of officials' efforts to work with and on IPT? Which activities, resources or topic areas that are not addressed at all should be taken on or included in existing offerings? Who might be the target audience, and who might be best placed to lead in such efforts?

We have some suggestions, drawing both on our findings during the encounters with the respondents in writing this paper and in reflecting on some of the examples that we noted in the text:

- In-person **short courses** can be a potent means to share and build knowledge on particular topics. Local universities are well placed to develop and host such courses, drawing not only on their research but also on connections that they may have with practitioners and government officials. Care should be taken that the topics covered include not only infrastructural and regulatory matters, but also social and political issues, amongst others. International philanthropic and development organisations can, and do, support such efforts.
- As with short courses, **workshops** provide opportunity not only for learning and sharing but also for resolving issues and building communication channels, especially if they have a limited, well-defined scope and are run in person. While local universities can play a valuable role, it is essential that such workshops are facilitated by experts with both topic and facilitation experience. International and regional NGOs and development organisations are well-placed to support such workshops, and their involvement may also help to motivate senior policy- and decision-makers to attend alongside technical and managerial staff. Operators can also be drawn in, as in the example of SSATP's workshops in Freetown and Kumasi.
- Unlike short courses and workshops, **master's and PhD degrees** are – at least initially – focused on the individual engaged in such studies. In time, as their experience in these studies and in practice builds, they have the opportunity to radiate their knowledge. However, the degree offer in Africa is limited in terms of topics central to IPT improvement and integration, especially when it comes to fields beyond infrastructure and economics. Developing comprehensive and balanced academic centres and programmes such as those mentioned in the text is a major undertaking in terms of effort and time. There is no one stakeholder group that can respond to this need; it requires a collaborative effort between governments, universities and philanthropic or development funders.
- **Study visits** remain a valuable capacity building mechanism, not least because they remove some of the immediate pressures that participants might otherwise face when they are in the office. However, to make the most of such visits, the destination must be carefully selected so as to spur reflection on what is and what is not relevant compared to the context back in the home city. As with workshops, study visits must also be expertly facilitated, to ensure that the most is made of what is an intensive and potentially overwhelming experience. International development organisations play a valuable role in supporting such visits.
- A key need that was expressed in several of our engagements was on **how to collect and manage data** in relation to IPT businesses and operations. Working groups such as DT4A have resources that provide with guidance on how to tackle these issues, and private sector enterprises such as those that are part of DT4A can also play a role. There may well be scope for context-specific workshops or courses on this issue too. This is an area where national and local governments are well-placed to support their own staff's ability to collect and manage such data, and to do so over time.

The suggestions we mention above are by no means meant to be exhaustive. Rather, we hope that by positing them we can spur further thinking and dialogue amongst the stakeholders involved with IPT and with capacity building linked to IPT. Ultimately, any offering must be refined in line with the specific needs and priority IPT issues in a particular city and country.

With that said, we also foresee that there is room for experimentation in a collaborative partnership, working with a small number of officials in a small number of cities, to develop a coordinated set of activities and resources that fits their time and workplace constraints. And working, at the same time, with them and with university, industry and development partners to formulate roadmaps that address the IPT-related human and institutional capacity gaps that they identify. And, of course, to pause and reflect on the extent to which we are indeed working towards improved and integrated IPT in African cities.