

A Public Enquiry by Think City & EcoPlan International

# Sustainable Penang

Toward a New Mobility Agenda: 2013 - 2015

An independent report on the findings of a civil society enquiry based on collaborative dialogues, symposia, master classes, workshops and supporting public events, with the goal of forging stronger local support for a more sustainable transport system to better serve all the people of Penang. The program is hosted by Think City and numerous local partners, in cooperation with EcoPlan International.



Credit: Muhamad Shafiq

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## Rethinking Transport and Public Space in Penang

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## Sustainable Penang: Toward a New Mobility Agenda

## A LIVING DOCUMENT

The report that follows presents the latest version of the Sustainable Penang project as of 26 November 2013, and is part of an ongoing review and finalization process that will continue through early 2014. The report and the associated materials indicated here are being shared with close to one hundred people who participated actively in the various focus groups and other key meetings during the three week enquiry in Penang, as well as by a certain number of international colleagues working in the field who have expressed interest in reading and commenting the report. These comments and contributions will be factored into the on-line report on a regular basis.

If you wish to join this informal review group, get in touch with the author at [eric.britton@ecoplan.org](mailto:eric.britton@ecoplan.org) Tel. +331 5088 0787 or Skype at [newmobility](#).



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## ACKNOWLEDGEMENTS

I am grateful to have this chance to express my thanks to the many Penangites and groups who have helped me in this project since the planning effort got underway in June. There are far too many to name here, so I shall have to be satisfied with these few words of appreciation. What I can hope for is that something useful will come out of all our hard work that will make a contribution to your beautiful city and state. What better way to say thank you.

The person most directly responsible for this mission was Dato' Professor Anwar Fazal in his role as Chair of Think City, Laureate of the Right Livelihood Award, and leading figure in the Civil Society movement in Asia. He guided me from the beginning in many ways, making sure that I understood the long of past efforts to deal with these challenges in Penang over two full decades. Upon reflection I believe that his most creative advice was to caution me to avoid being unnecessarily critical, but at the same time honest in my appreciation of the weaker points of the present situation. It is important, he said, "but Eric I don't want you to lose track of the fact that it is the *positive recommendations* that are going to ensure there will be follow-up and continuity to all the work that is being done while you are here." I am trying hard to follow his wise counsel.

I was cordially received on a number of occasions by officials and their staffs both at the level of the State of Penang and the two Municipal councils which are leading the way when it comes to implementation of many of the ideas that are outlined here. An important part of my education was supplied by meetings with members of the Penang Transport Council, and in particular their director Mr. Thean-heng Lim who was especially generous with his time and knowledge from the initial stages of the planning efforts.

The staff of Think City were also extremely generous with their time and support, especially Daniel Lim, Duncan Cave and Kartina Mohamed. They put a lot of work and brains into the project day after day, and were to a good extent the turntable of the entire mission, without whose support it would never have taken place.

Of particular importance was the active participation of all those who agree to get involved in the Focus Group sessions that continued on an almost daily basis through the entire three weeks in Penang. These resources of education for the author and great opportunities to gather from them their views on problems, priorities and their proposals for actions and remedial measures many of which appear in Chapter 3 of this report.

Well more than half of the people taking their time to support the project were women, with considerable expertise in a wide variety of critical areas, strong views and demonstrated leadership skills. Their continued involvement and leadership is going to be critical to the challenges of a Sustainable Penang and the major transportation reform program that now needs to be engaged.

Finally, let me in express my warmest thanks to Mr. H. T. Khor who was my guide and instructor from start to finish. I could not have asked for a better and more generous working partner. Thank you Khor, thank you all.

Eric Britton, Lyon, 26 November 2013

## Sustainable Penang: Toward a New Mobility Agenda

## EXECUTIVE SUMMARY

This report and the months of planning and preparation behind it is intended as a collaborative brainstorming exercise. At a time when public policy in the transport sector needs new ideas and new approaches, we have attempted to scan interesting practices worldwide in order to draw them to attention to all of those concerned with these issues in Penang. The report is thus not a how to-do manual but an encouragement and stimulus for no less than *Rethinking Penang*.

And that is much needed. The underlying reality on the streets and public spaces in 2013 is this: Penang's transport, mobility and public space arrangements in 2015 leave a great deal to be desired. With some but few exceptions, they are mediocre at best and for the most part entirely unsatisfactory, unfairly and underperforming. And there is no good reason that it has to be like that.

The grinding situation is one of every day: more cars, more traffic, more congestion, more pollution, more lost time, more anger, more noise, more isolation, more accidents, and fewer good affordable options for getting around for the vast majority of the population. The system is inefficient, and worse it is unjust. But there is worse yet: year after year they are continuing to deteriorate steadily, almost visibly. The citizens and taxpayers of Penang deserve better.

One bit of good news is that there is virtually nothing that is particularly original about the circumstances of inattention, inconsistency and decay; these are the same behaviors, patterns and conditions encountered in the vast majority of all larger cities across the developing world. Perhaps surprisingly this can be seen as good news. Because we thus know what the problems are and we know how to resolve them. There are very few unknowns. Many other cities and regions have faced these challenges in the past and have figured out how to make this transition. So there is no reason why the same cannot be done in Penang. And one day it will. The only question is when?

There are long list of reasons why Penang needs to turn the situation around and without undue delay. In the 21<sup>st</sup> century cities *compete* and any city which does not offer a pleasant and efficient place to live and work is going to lose out in the international competitions. The best and brightest young people will leave such a place and it cannot expect to compete for new investments, jobs and the creativity of the brightest and best in the international arena. Quality of life counts!

So for all these reasons it is time for those driving transport policy and practice in Penang to start to look hard at what can be done to make it not only a great place to live and work but also a vigorous competitor for the best. Fortunately Penang has a number of real advantages, potential and eventual tools and measures that can now be put to work for this reconversion effort.

The good news is that the State has in hand virtually everything needed in order to prepare, initiate and advance a major sustainable transportation reform. The money, the technical capacities, the institutional framework, the autonomy, and the ideas and examples needed to make major improvements, many at very low cost and well within the 2015 time horizon of the Transport Master Plan. The Master Plan already sets out a number of institutional and technical reforms needed to improve the performance of all aspects of transport in the state efficiency, environment, economy,

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resources, energy, and quality of life for all. It provides a solid point of departure.

You have in place a solid institutional structure, led by the State, supported by the Penang Transport Council, with at the core the dynamic Municipal Councils on the island (MPPP) and the mainland (MPSP). All of which supported by one of the most well developed networks of civil society and public interest groups in all of Asia. These are huge assets for your transformational program.

It's not a matter of money. You have sufficient funds under your control to make a virtually all of the improvements which are necessary over the course of the next two years, if you concentrate above all on the *management of the transportation assets* you already have -- as opposed to as in the past spending heavily on new construction projects to solve your problems. The priority is not to further expand supply of inefficiently used infrastructure, but rather to manage and use it better. The Transport Master Plan provides a number of useful guidelines for how to do this.

With the collaboration of my colleagues at Think City and all those who have so generously given of their time and ideas over these last weeks, and particularly all those participating in the Focus Groups, we have come up with an initial brainstorming list of some forty specific project initiatives which can be done quickly, and which are entirely under the control of state and local governments. As author I very much hope you will look at them, and in time through your suggestions and recommendations help us to expand and improve this open resource inventory.

If we think of the world cities as being roughly divided into "leading" and "lagging", the truth is that Penang today solidly implanted in the latter category. But so too, and not all that many years ago, were many of the leading cities that today are showing the way. Most of them not all that many years ago were also victims of inconsistent, unthought-out, unimaginative, selfish, undemocratic and inefficient transportation policies themselves. The lesson is that you do not wake up in the morning and find yourself suddenly having become a "leading city" in this respect. You have to roll up your sleeves and get to work with an entirely different set of values and goals.

But for that to occur there needed to be a vision, a strategy, plans and actions of which individually and collectively started to change the shape of the city and the quality of everyday life for the people who live and work there but also for visitors who come because they are eager to see and be in a situation in which an agreeable and sustainable city environment has been achieved

The key to the success of this project will be in the follow-up in the year ahead. What you see here is but a first cut of ideas and projects. But it will be in the follow-up, the adoption of these ideas by local groups and agencies who can turn them into reality that will make the difference.

In closing I can tell you one thing for sure. And that is that Penang will one day make *all* the necessary reforms that today are so badly needed. You will get to it, sooner or later, because that is what the world trend is. That's what successful cities do. So it is really a question of time. If you have the vision, the strategy, the energy and the leadership you can advance the agenda by a decade in just the next year or two of careful applied work. That will be your choice -- no one can do it but you.

Eric Britton, Lyon. 26 November 2013



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## THE REPORT IN BRIEF

A collaborative brainstorming document prepared by the author to summarize a number of the outstanding contributions and project ideas that came up during the course of three weeks of collaboration in Penang with numerous public meetings, focus groups, seminars and other associated events, the objective of which was to see if working together we could identify a certain number of “pattern breaking” measures and projects that might be considered for implementation in Penang over the coming year.

After a very short graphic introduction, the report is divided into three main parts. Chapters 2 and 3 make brief presentations of the overall structure, key principles and orientation of the New Mobility Agenda -- a collaborative strategy for enlarging the policy debate and bringing in new ideas and approaches for improving mobility in cities and in the surrounding lower density areas. Readers will appreciate that this is an especially demanding agenda because it requires not that policymakers pick out one or several of the proposed strategic pillars for ad hoc action, but that they sign up with the *entire strategic structure*. Without such firm underpinnings, policy risks most certainly to be inconsistent and to lack the necessary continuity for reforming the global system.

Chapters 5 to 8 set out a series of short descriptions of approximately 40 project ideas or concepts that came up over the course of the discussions with the participating organizations and individuals representing both the public sector and various branches of civil society and the media. These descriptions are at this point very brief. Rather they are intended to open up discussions of thinking about the selected topics which came out of the focus group meetings and meetings with key government groups over the course of the three weeks. The hope is that some of these ideas – you may choose to think of them as equivalent of bookmarks in your browser – will in the months ahead be picked up and adopted by the principle implementing agencies and groups, and supported by civil society in order to develop a new trend for transport and land use in Penang.

Chapter 9 looks at the vital issues of follow-up and implementation, the critical next step in this process. The implementation phase is to be led in the first instance by the state authority, the Penang Transport Council and the two Municipal Councils who have already initiated some new initiatives which break with the old patterns and choices that favored private car traffic above all. As can be seen if we look at the streets, there are better ways of organizing transportation in Penang.

The annexes are self-explanatory other perhaps the Table of Ideas, which is a listing of close to one hundred topics and proposals that were discussed in the various working sessions.



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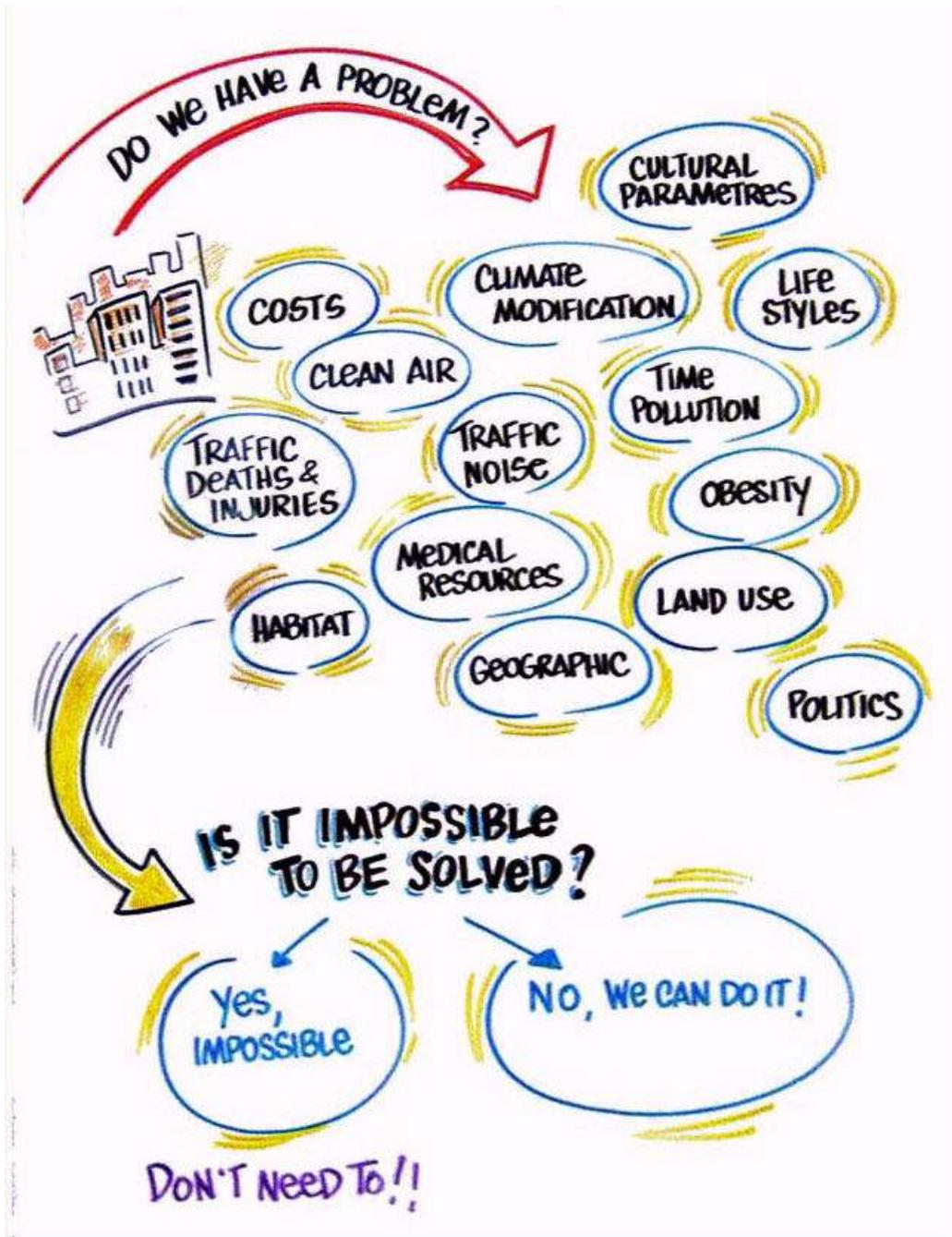


## VISUAL EVIDENCE

The photographs that appear in these pages have been taken from many sources, mostly the local media, are intended to give the reader who is not directly familiar with the streets of Penang a first feeling for the day to day reality of the scene. A small window on the streets and people of Penang. As you will see when you go there the reality has many facets and the handful of images that appear here are only fragmentary evidence.

# 1. INTRODUCTION: BRAINSTORMING NEW MOBILITY

## 1.1 Do we have a problem?



## 1.2 If so why are we not solving it?



### 1.3 What do we do need to do to make it work?



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## 2. RETHINKING MOBILITY

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Fortunately Penang does not have to start from the beginning and all by itself reinvent its presently troubled transportation arrangements to create a beautiful and sustainable city. There are many cities in different parts of the world who have in the past addressed these same challenges, patiently, consistently and with continuity and excellent results. So in many ways there is nothing new; it all depends on how you put it together. And it is these cities and these projects that provide examples for Penang. All of these examples taken together constitute what we call the New Mobility Agenda. Let us have a look as been learned over the last three decades in these “rethinking cities”.

### 2.1 SAY GOOD-BYE TO OLD MOBILITY

Old Mobility” – with its drumbeat stress on steadily increasing supply, more vehicles, higher speeds, longer distances and more infrastructure as the auto-pilot, unexamined answer to our city mobility problems — has been the favored path for decision-making and investment in the sector over the last 70 years. It is well-known and easy to see where it is leading. Aggressing the planet, costing us a bundle, draining the world’s petroleum reserves, and delivering poor service for the transport majority. It’s time to learn from the best of the rest, the several hundred cities, many of them in Europe, that are showing the way for the rest.

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## 2.2 READY FOR CHANGE

Virtually all of the necessary preconditions are now in place in Penang for achieving far-reaching, rapid, low-cost improvements in the ways that people get around not only in the cities but in the State as a whole. The needs are there, they are increasingly understood — and we now know what to do and how to get the job done. The challenge is to find the vision, political will, and leadership to get the job done, step by deliberate step.

But to get there we have to have an explicit, coherent, ethical, checkable, overarching strategy to get the job done. Without it we are destined to continue play at the edges of the problems, and while we may be able to announce a success or improvement here or there, the overall impact that our cities need to break the old patterns will not be there. We really must have that clear, consistent, cross-cutting, systemic strategy.

The Agenda provides a free public platform for new thinking and open collaborative group problem solving, bringing together more than a thousand leading thinkers and actors in the field from more than seventy countries worldwide, sharing information and considering together the full range of problems and eventual solution paths that constitute the global challenge of sustainable transport in cities.

## 2.3 THE ROLE OF THE CAR IN THE CITY

*(Don't worry, it's not about to go away)*

Fact: Penang has its full share of mobility related problems. And they are getting worse every year. The good news is that there is not one thing in the present transportation mess that is unique to Penang. Which puts Penang in the situation of someone who is sick, but with a well charted disease and in a world in which there are many well-known remedies for the problems. But you have to be ready to go to the doctor and explain exactly what your problem is.

Fact: Our cities today have plenty of cars and very very large numbers of people and institutions who depend on them. They are not going to disappear from the street overnight, and we must never lose sight of their high importance to both the individuals concerned and the economic, and yes, the transport viability of our cities.

Precondition: Thus the challenge before policy makers and transportation professionals now at a time when change is so badly needed is that of redefining the role of the car so that it has a

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more appropriate fit with the overall texture and priorities of our 21st century cities. The indisputable fact is that if our cities are to be sustainable, one of the necessary conditions of their sustainability will be that they are home to many fewer cars. How to manage the transition when our dependence on private cars is still so very strong? We can be sure that it will not be the result of brutal confrontation. That would be a battle lost, at least in the short-term which is the field on which these issues now need to be engaged.

Bottom line: Yes, we need to reduce significantly the number of cars in and moving around in and through our cities. Yes, in order to achieve this we are going to have to provide a broad range of attractive mobility alternatives which are seen by those who use them as better than the old arrangements. And finally yes, we are going to have to provide a “soft path” for car owner/drivers to move over to these alternative transportation arrangements. The soft path in a pluralistic democracy requires that the decisions are made by individuals in what they consider to be their own interest. As part of this we also have to build into our strategy in understanding that a certain amount of time is required for us human beings, change-averse as we are, to alter our daily mobility choices. (But this time, depending on the individual case, is a matter in most cases of months or at most a couple of years, not decades as often is said to be the case.)

That is the underlying strategy of the New Mobility Agenda, now let us go on to look at the broader strategic frame.

### 2.4 THE PSYCHOPATHOLOGY OF THE OWNER/DRIVER

One of the key actors on the transportation scene in Penang is of course the car owner/driver. It is extremely important that we understand the mentality of this powerful minority, at all the more so since they are both part of the problem and an absolutely critical part of the solution.

When it comes to ownership, it is important to understand their mindset at each stage in the process of thinking about, dreaming about saving for and with some luck finally paying for and owning their own car. This is not an innocent process and is shaped by many external players, including of course the automobile industry which has its products to sell. And not all of these influences, habits and choices are necessarily the best ones for all involved, the car owners and their families but also the community as a whole.

Penangites, drivers and non-drivers alike, regaled me with stories of driver misbehavior in terms of speeds, lack of respect of others on the road, respect of parking restrictions, and a general level of aggressive and he and lack of social conscience which, we are told, set them apart from the rest. It is said that they own the cars and they own the road and since it is so clearly their property is for them to use as they think best.

This is just not true. Car owners and drivers in Penang are behaving in terms of the pattern which is well-established and can be seen in many parts of the world. In earlier times when the sheer number of cars being poured into our cities was much less, this misbehavior is far less of a problem

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that it is today. There is a process of maturation, and the public sector through knowledge and ability to communicate well and at the right time is the critical link in the process of civilizing the car.

There is extensive background in this area researched and written by not only transportation specialist but also, most appropriately, sociologists, behavioral psychologists, neurologists, psychiatrist and psychoanalyst. Likewise there are significant contributions that been made by the story and, political scientists, environmentalists and, if I may, even economists.

It would be important and a significant tool or public policymaking in Penang can develop some centers of expertise in this area.

### 2.5 THE NEW MOBILITY AGENDA IN BRIEF

The New Mobility Agenda builds on a well-defined platform when it comes to transport policy, planning and investment, the result of long experience of working with and observing the sector in its daily operation in cities around the world. It would not be true to claim that these views are unique to us; indeed they have been distilled over the years as result of contacts and work in collaboration with farsighted colleagues and policymakers in many places. They are shared, at least in good part and with variations, by just about all of our most distinguished colleagues.

The main reference point for all that you will read in these pages is a long-term program, the New Mobility Agenda, an international collaborative effort focusing entirely on transportation in and around cities. It has been in operation since 1988 with continuous interactive presence on the internet as one of the pillars of the collaborative knowledge-building process that is behind it. And this is what we have concluded:

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### 3. NEW MOBILITY THE STRATEGY

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*Basic principles and strategies that make up the New Mobility Agenda*

The shift from old to new mobility is not one that turns its back on the importance of high quality mobility for the economy and for quality of life. It is not a step down. To the contrary! with the proven organizational models and technologies we now have at our fingertips, and in the labs, it is possible to redraw our transportation systems and use of valuable public space so that there is less inefficient movement (the idea of one person sitting in traffic in a large car with the engine idling is one example, an empty bus another) and more high-efficiency, high-quality, low-carbon transportation that offers many more mobility choices than in the past, including the one that environmentalists and many others find most appealing: namely, getting what you want without having to venture out into traffic at all. Now that's an interesting new mobility strategy, too.

Here you have the twenty key underlying principles of the strategic policy frame that is needed to shape and guide the transition principles that we and colleagues around the world have diligently pieced together over the years of work, observation and close contact with projects and programs in leading cities on all continents under the New Mobility Agenda.

The short words of introduction after each strategy title below are intended here only as a first check-list of key principles, to be consulted and used carefully to screen all new project and investment commitments in the sector. Each has an abundant literature and each is an accepted part of the New Mobility Agenda toolkit. Let's have a look.

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### Strategy 1. Reduce traffic radically.

The critical, incontrovertible policy core of the Agenda – is to find a way to engineer major, near-term full screen percentage cuts in vehicle miles traveled and in particular in high density areas. If we don't achieve this, we will have a situation in which all the key indicators will continue to move in the wrong direction. But we can cut traffic and at the same time improve mobility. And the economy. That's our New Mobility strategy.<sup>1</sup>

### Strategy 2. Expand non-car mobility services available to all:

Extend the range, quality and degree of integration of non-car mobility services available to all. A whole range of exciting and practical new service modes is needed if we are to keep our cities viable.

The list of these alternative service types is quite long, and in addition within each of these are a considerable variety of different ways of delivering these services. Among the most widely known are small community buses, elderly and handicapped services, carsharing and car clubs, ridesharing and carpools, nonmotorized transport including cycling and walking, taxis (both legal and illegal since the latter exists), DRT or demand responsive transit, various forms of hitchhiking and slogging, and the long list goes on.

And they need to COMBINE to offer better, faster and cheaper mobility than the old car-intensive arrangements or deficit-financed, heavy, old-technology, traditional public transit. We need to open up our minds on this last score and understand that rather than being stuck in the past with a 19th century version of how "common people" best get about, it is important to move over to a new paradigm of a great variety of ways of providing shared transport mediated in good part by 21st-century information communications technologies.

### Strategy 3. Tighten time frame for action

Select and gear all actions to achieve visible results within a two to five-year time frame. Spend at least 50%, preferably more, of all your transportation budget on measures and projects that are going to yield visible results within this time frame. Set firm targets for all to see and judge the results. No-excuse results-oriented transport policy.

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<sup>1</sup> We asked the reader to be patient with these very short descriptions, each of which needs to be introduced and developed in considerable detail. But that is not the objective of the present exercise. In each case, and let us take this one for example, it is easy enough to say that an important strategy is "to reduce traffic radically as quote. But then there is a matter of how this is achieved. But the important thing is that once that this is expected as a underlying general principle for policy, then it is time to put the technical experts on the challenge of how to achieve it. This is a sort of things that will happen in subsequent stages of this project it is to continue in the future.

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Strategy 4. Design and Deliver for the Transportation Majority

The “transportation majority” is not what most people think, transportation planners and policy makers among them. The transportation majority are all those of us who increasingly are poorly served by the mainline, no-choice, car-based, truncated service arrangements that eat up most of our taxpayer money and take away our choices. And each year, as our populations age this majority grows in numbers. (For details see section here on The Transportation Majority at <http://wp.me/p3GVVv-1z>)

Strategy 5. Take advantage of frugal economics:

We are not going to need another round of high cost, low impact investments to make it work. We simply take over 50% of the transport related budgets and use it to address projects and reforms that are going to make those big differences in the next several years.

Strategy 6. Build on what we have:

For many transportation planners and experts schooled in the old mobility college, this will be one of the least evident of the strategic building blocks behind the New Mobility Agenda. In the first place, because many of these systems or services turn out to be almost invisible to policymakers working in the transport sector. These can range from various kinds of taxis and community or specialized transport services, all the way to the kind of chaotic, streets-clogging or almost invisible modes, often dangerous (dangerous, because that is the way we treat them) services such as small private buses, shared taxis, pedicabs, informal carsharing, informal ride sharing, and a range of illegal or arrangements which I can or not they to work for lots of people in many places, but which in most cases and despite their present drawbacks probably need not to be suppressed but rather to be better understood, negotiated, improved in consort with the suppliers, and integrated into the multilevel range of transportation options that are really what is best suited for cities in all parts of the world.

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Strategy 7. Do not build yourself into a corner

Many cities which today enjoy immensely improved transportation systems and services were not always so wise in the past. As a result major bits of transportation infrastructure which were improperly planned and built time had to be removed. This is a costly and painful process. The lesson we can learn from that -- particularly at times like the present where it most parts of the world money is scarce -- is not to build ourselves into a corner that later we would like to get out of. Therefore all major construction projects which involve the expansion of road infrastructure and vehicle traffic need to be examined critically at the present time to determine the full cycle of events they are likely to set off, and with a careful analysis of determining if there are other, possibly better, cheaper and faster ways of getting the job done.

Strategy 8. Design and deploy *packages* of measures

As distinguished from the old ways of planning and making investments what is required in most places today are carefully interlinked "packages" of numerous small as well as larger projects and initiatives. Involving many more actors and participants. One of the challenges of an effective new mobility policy will be to find ways to see these various measures as interactive synergistic and mutually supporting projects within a unified greater whole. A significant challenge to our planners at all levels

Strategy 9. Integrate the car into the new mobility pattern

State-of-the-art technology can be put to work hand in hand with the changing role of the private car in the city in order to create situations in which even car use can be integrated with a far softer edge into the overall mobility strategy. These advantages need to be widely broadcast so as to increase acceptance of the new pattern of urban mobility. The new mobility environment must also be able to accommodate people in cars, since that is an incontrovertible reality which will not go away simply because it would seem like an ideal solution. We are going to have plenty of small and medium-sized four-wheel, rubber-tired, driver-operated vehicles running around on the streets of our cities and the surrounding regions, so the challenge of planners and policymakers is to ensure that this occurs in a way which is increasingly harmonious to the broader social, economic and environmental objectives set out here.

## Sustainable Penang: Toward a New Mobility Agenda

Strategy 10. Full speed ahead with new technology

New mobility is at its core heavily driven by the aggressive application of state of the art logistics, communications and information technology across the full spectrum of service types. The transport system of the future is above all an interactive information system, with the wheels and the feet at the end of this chain. These are the seven-league boots of new mobility.

Strategy 11. Technology agnostics/Performance advocates

Please note: We do not care, nor should we care, what is the technology to be used or favored at any point in the system. It is not the role of inevitably under-informed, naive, and ever-hopeful policymakers to make determinations about which technology is going to be the best to build into the system. This is way past their level of competence, and is not in any event even necessary in order to create the preconditions of a better transportation system. But what our policymakers can do, and what they should do, is to specify not technology but performance. There are many ways in which this can be done, two of which include two performance standards and emissions standards. But there are more.

Strategy 12. Play the “infrastructure joker”

The transport infrastructures of our cities have been vastly overbuilt. And they are unable to deliver the goods. That’s just great, since it means that we can now take over substantial portions of the street network for far more efficient modes.

Strategy 13. Design for women

Our old mobility system was designed by, and ultimately for, a certain type of person (think about it!). And so too should the new mobility system: but this time around it should be designed to accommodate specifically women, of all ages and conditions. Do that and we will serve everybody far better? And for that to happen we need to have a major leadership shift toward women and, as part of that, to move toward full gender parity in all bodies involved in the decision process. It’s that simple.

## Rethinking Transport and Public Space in Penang

### Strategy 14. Outreach and Partnerships

This approach, because it is new and unfamiliar to most people, is unlike to be understood the first few times around. Hence a major education, consultation and outreach effort is needed in each place to make it work. Old mobility was the terrain in which decisions were made by transport experts working within their assigned zones of competence. New mobility is based on wide-based collaborative problem solving, outreach and harnessing the great strengths of the informed and educated populations of our cities. Public/private/citizen partnerships.

### Strategy 15. Environment/Climate Emergency leading the way

Planetary issues such as climate change and massive resource depletion, does not have a major voice in most local transportation plans and investment decisions. . The on-going emergency sets the global timetable for action in our sector. Getting the carbon, and with it fossil fuels, out of the sector is an important goal in any event. But low-carbon strategies per se are not really a strategic tool per se.

At the same time GHG reduction works as a strong surrogate for just about everything else to which we need to be giving priority attention in our cities, chief among them the need to cut traffic. Fewer vehicles on the road means reduced energy consumption, less pollution in all forms, fewer accidents, reduced bills for infrastructure construction and maintenance, quieter and safer cities, and the long list goes on.

What is so particularly interesting about the mobility sector is that there is really a great deal we can do in a relatively little time. And at relatively low cost. Beyond this, there is an important joker which also needs to be brought into the picture from the very beginning, and that is that these reductions can be achieved not only without harming the economy or quality of life for the vast majority of all people. To the contrary sustainable transport reform can be part of a 21st century economic revival which places increased emphasis on services and not products.

### Strategy 16. Lead by Example:

If you are mayor or other elected official. If you are engaged as a professional in public policy areas that relate to the sustainability agenda . . . you don't have a choice really, you must lead by personal example. This means getting to work by bike, walking, public transport or some form of carsharing/ridesharing at least two days a week. Every week. By doing this, you will have hands-on knowledge of what works and what does not in your city. You become Eyes on the Street. You will be authentic and credible. You will be the kind of leader we need to identify and guide the reforms, policies and projects that must now be put in place. And if you do not do this, if you stay in the back seat of your limo, you won't get my vote.

## Sustainable Penang: Toward a New Mobility Agenda

### Strategy 17. Set High Targets

“If you can’t measure it you can’t manage it” or so the expression goes. That is true when it comes to transportation reform as anywhere else. So in order to reinforce the move toward sustainable transportation what should be the thing we decide to commit for measure? Too many high targets and we are lost. So what about picking *ONE* to be sponsored and implemented the highest levels of state government and making that a major program supported by a vigorous public information program and open data for citizen inspection and confirmation.

What should that one target be?

### Strategy 18. . . . And Make Them Known (New Mobility Media Program)

Everyone involved, and certainly including the general public, need to be made continuously aware of the fact that something different, something serious is going on. If people selling cars and gasoline hammer through the media every day to pass their message, we need to take a page out of their book to do the same. And not just feeble one-time well-intentioned shots, but an aggressive continuing strategic media campaign with the resources behind it to make it stick.

### Strategy 19. Reward and Support Innovation

Policy makers but also other institutions and groups who care about their city need to be supportive and on the lookout for innovation, of which there is plentiful need in our sector. It will be useful to create something along the lines of a central repertoire that will keep track of innovational attempt in difference places. It will be useful to create incentives to encourage innovation, through prizes, publicity or financial awards. The idea is to celebrate innovation and adaptation of good ideas and hard work no matter what their origin. Because government can not do it all.

### Strategy 20. But above all . . . pick winners!

There is no reason for policymakers to take unnecessary chances. New approaches demand success. When it comes to transport innovation in the second decade of the 21st century there is no margin of error. Moreover, the track record of the kinds of approaches that are needed to create a new system is rich and well documented. Meaning that we can choose policies and services with track records of success and build on all this accumulated experience. (And there are plenty of them out there if you are prepared to look and learn.)

Now let us have a look at how we can apply these strategies to the first steps of the transportation reform program Penang, starting in 2014.

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**Bumper to bumper: A recent photo showing the traffic situation at the Bayan Lepas FIZ coastal road.**

## Sustainable Penang: Toward a New Mobility Agenda



#### 4. NEW MOBILITY TRANSITION PROJECTS - 2014

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We strongly recommend that the coming year of 2014 be given over to the creation and management of a first set of what we call “Transition Projects”, measures and policies which are intended to demonstrate in concrete terms that there are indeed viable options to old mobility’s demonstrably destructive “Build and Fill” policy, so popular during the last century and which persists in many public institutions and minds in Penang to today. To get this new policy off the printed page and on the street we have selected a range of measures with very specific characteristics: that are relatively modest in scope, for the most part low cost initiatives which can be implemented and produce visible results to advance the sustainability agenda for Penang notably and in a very short period of time (i.e., over the year ahead).

The ideas and proposals set out here came from the thirty-plus meetings and workshops held over the three week exploratory cynic in Penang.

It is important to bear in mind that one of the outstanding strategic qualities of the proposed measures introduced here is that they are all uniformly consistent with the New Mobility philosophy which in our view is the right one for Penang (and indeed cities around the world). *Consistency* of policy is something that characterizes the cities that are leading examples of these new approaches.

## Rethinking Transport and Public Space in Penang

#### 4.1 PATTERN BREAKING

In addition to being relatively low cost and able to be realized quickly, all the initiatives introduced here have one thing in common which is extremely important and the lack of which has in the past led to big and costly errors -- and that is that virtually all of them are easily *reversible*. When your answer to a perceived problem of congestion is to build yet another series of lanes for high-speed traffic, which is a policy which is difficult, costly and time-consuming to reverse. But if on the other hand your basic strategy opens up ways to make better use of the existing builds infrastructure, the cost of undoing or reversing such projects is low and in general quickly done.

When in the old days transportation policy centered on high cost investment projects for roads, bridges and other transport infrastructure, the effort of analysis and technical planning had to take place before the bulldozers started to roll and the concrete started to be poured. The measures introduced in these pages are what are called “learning projects”. In a learning mode you initiate a project and from the beginning carefully monitor its uses and impacts, relying on good feedback in order to start to make the many small adjustments that are inevitably needed to ensure success. This is a different way of organizing our work in our minds, but it is one that makes perfect sense in a century in which logistics and feedback are among the major tools at our disposal.

Likewise the particular measures introduced briefly here have been selected on the grounds that they constitute “easy wins”, by which we mean these projects are carefully selected because they are not likely to encounter heavy resistance in various parts of the community, such as would be the case if we were to propose at this early point any divisive (if ultimately necessary) programs such as aggressive parking and enforcement programs or any initiatives which are going to be aggressively contested by the business community, car drivers, the police or others who may feel that their interest may be put in danger by such initiatives.

These projects are individually and collectively as what we call “pattern breakers”, demonstrating not only new ways of doing things but also new ways of thinking about them. That is important because at the end of the day the core of the challenge is a matter of culture and communications. And a number of the old patterns simply have to go.

There is another characteristic of these projects which also needs to be noted, and that is that they are part of the planning approach which does not try to achieve one specific objective at a time but rather think of a coordinated strategy bringing together packages of measures which reinforce and stimulate each other. (See section on Packages of Measures in Ch. 2.)

Finally it has to be mentioned that more than half of these ideas have already been proposed in previous planning documents and expert missions. Indeed one of the main contributions of the present project is that it provides an opportunity to remind all concerned about interesting ideas and proposals that have been made in the past in which, for various reasons, not yet seen the light of day. The authors hope is that the present document and project may serve as a friendly knowledge of these great ideas in the right direction.

## Sustainable Penang: Toward a New Mobility Agenda

## 4.2 BUILDING ON A FIRM BASE

Fortunately as such initiatives are not altogether unfamiliar in Penang. Over the last several years various agencies and groups have started to think about transportation and environment in different ways, and not only in the abstract. Here is an incomplete shortlist of the some of the more innovative new mobility pattern-breaking projects already going on and starting to make a visible difference on the streets of Penang.

- 1 UNESCO World Heritage Site
- 2 Car Free Days
- 3 Rapid Penang
- 4 Penang Bridge Express Shuttle Transit (BEST)
- 5 First Park-And-Ride programs
- 6 Penang Bicycle Route Master Plan, enabling streets for bicycle users to move safely
- 7 Cycle paths
- 8 CAT shuttle bus service
- 9 Placemaking in Penang (report)
- 10 One-way streets in Pulau Tikus<sup>2</sup>
- 11 Symposium on State and Sustainability of the Environment in Penang
- 12 Penang Strategic Transport Master Plan<sup>3</sup>

These are very different initiatives, difference in size, visibility and cost, but what they have in common is that they are showing that there are alternatives to bringing New Mobility to Penang. The proposed 2014 program would attempt to build on and expand these leadership examples that you have already begun to advance and get experience with.

## 4.3 TABLE OF IDEAS

If you turn to Annex D you will find a listing of close to one hundred proposals that were discussed in the various working groups and presentations. These are reproduced here in the hope of stimulating deicdsins for concepts, approaches and priorities in addition to those summarized in these pages.

While they will make sense mostly to those participating in the various groups and the organizers, they also contain reminders that the key to follow-up is going to lie in finding partners and collaborators to ensure that the best ideas do not get lost in the months ahead.

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<sup>2</sup> A hotly contested project which needs more work but already shows a willingness to break patterns

<sup>3</sup> We have chosen to list here just of some of the most visible recent projects, but there are more. However this first group city and out to demonstrate the principle that new thinking about these issues is going on in Penang.

## Rethinking Transport and Public Space in Penang

#### 4.4 RECOMMENDED TRANSPORT MASTER PLAN STRATEGY

If we consider this in the context of the “Recommended Transport Master Plan Strategy” which looks out for the year 2030, we see these projects as a compliment to the short-term concerns of the strategy which goes out to 2015.<sup>4</sup>

In the first place they build on initiatives which have already gotten underway and/or providing visible results in the right direction over the last two years or so, and have his or her goal to demonstrate both individually and as a group that new mobility initiatives are possible and that the old bad patterns can be broken once and for all.

So what is our strategy in making up this list of actions in this manner? We have several objectives, of which the first is to start with winners. Or as Anwar Fazal has so elegantly put it, we want to start with the “low hanging fruit”.

The following short descriptions are intended to invite provide first introductions and background for consideration and discussion about ideas and practical approaches which are working in other cities. Think of them in their present form as initial brainstorming examples in which the author tries to draw your attention a certain number of specific actions that together can lead to a more sustainable city.

The ideas you will find here are by no means original and untested. In all cases there are a large number of examples that can be called from the experience of leading cities around the world. And a fair number of them have already been suggested by past studies in Penang, most of which unfortunately have not been pursued and implemented until the present time.

But it also needs to be said that the listing that follows here is by no means complete. But the most part it does not offer “solutions” but rather offers food for thought and a number of questions which need to be taken into consideration in order to create an overall framework for a sustainable city and a sustainable cities transportation arrangements.

There is no reason that these policies and measures cannot work well in Penang, and diligent professionals will find online all the support they need for at least a first sketch planning exercise.

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<sup>4</sup> By way of complementary materials we strongly recommend that the reader give attention to the section of report entitled "5.3 The Detailed Information Program – Now to 2015", pages 64 to 67. The strategic approach of reports together with recommendations specifically involving near-term improvements in public transport, much tighter linkages with land use planning, there is projects to improve public information for travelers, and overall to rectify the current unacceptable imbalance of public cars in the overall modal share are closely related to the goals and strategy of the Sustainable Penang New Mobility program introduced here.

Sustainable Penang: Toward a New Mobility Agenda



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## Rethinking Transport and Public Space in Penang

## 5. VITAL UNDERPINNINGS

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This section presents a short list of strategic actions which were extensively discussed over the course of the three-week enquiry and which if given sufficient attention individually and collectively can do a great deal to reshape the transportation agenda in all parts of Penang.



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## Sustainable Penang: Toward a New Mobility Agenda

## 5.1 UNESCO WORLD HERITAGE SITE

It is by no means an exaggeration to say that the happy accidents of the UNESCO world heritage site has served as a major force in favor of a more sustainable and more just city and all its dimensions. Moreover, the fact that it is strongly supported by government at all levels, including political parties with otherwise significant differences, and civil society and all its varieties ensures that sustainability is now hiring the agenda for Penang.

As will be seen from the following, transportation and mobility issues, especially those concerning walkability and safe and convenient cycling, as well as protection of the area from high-speed and excessive motor vehicle traffic are in many ways that the core of the program which now needs to be fashioned in order to ensure that the heritage site is worthy of the confidence shown to Penang by UNESCO.

That said, it is important to bear in mind that because of its modest dimensions and the fact that it is generally viewed as something unique in itself, the site is seen as part of a leading city and an example for other parts of Penang and not just a quaint museum piece close in itself.



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## Rethinking Transport and Public Space in Penang

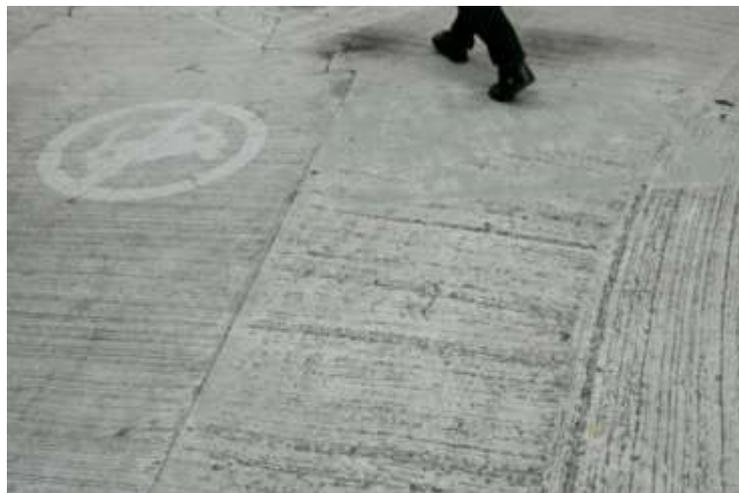
## 5.2 PENANG CAR FREE DAYS

Penang is doing a fine job over the last several years in making creative use of the Car Free Day principle of closing off parts of the city to motor vehicle traffic so that people can celebrate their streets in any of a number of ways. And since the first Car Free Day in 2011 the concept has steadily expanded, both in terms of the number and size of the areas served, and in terms of their frequency.

As of summer 2013 there are now four areas in the city which are car free on Sundays, a major step ahead with this often underrated sustainable transportation tool. We strongly recommend that this program of extensions and refinements be given careful attention both at the level of the concerns government agencies and also civil society and the media more generally.

The second function of a Car Free Day program from the beginning of the program in 1994 is to encourage participating cities to choose one day of the year for the principle celebration and at that time both to set out a number of proposals for specific mobility and life quality improvements to be achieved in the year ahead. And then, one year later, to review the results of the proposed projects and to discuss their achievements, eventual shortcomings and barriers holding them back.

We strongly recommend that a procedure be developed to help the organizers prepare and present their action plan of sustainability measures for the year ahead, and the reporting procedures that need to be established to ensure compliance<sup>5</sup>



The Streets of Penang (Car Free Day 2013)

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<sup>5</sup> Penang continues to honor their annual State-wide Car Free Day celebration in the context of World Car Free Days which are traditionally held the last days of September. This could provide a very good forum for some form of cooperation and creative interaction with the proposed annual Symposium On State and Sustainability of the Environment in Penang

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### 5.3 TRAFFIC SAFETY CAMPAIGN (WITH TEETH)

“If you can’t measure it you can’t manage it”. That is true when it comes to transportation reform as anywhere else. So in order to reinforce the move toward sustainable transportation what should be the thing we decide to commit for measure?

And since we all have so many things on our minds, we need to be sure not to confuse ourselves. Too many too ambitious targets and we are lost. So what about picking *one* to be implemented the highest levels of state government and making that a major program supported by a vigorous public information program open data for citizen inspection and confirmation..

What should that one target be? Well, since we have so many problems in the sector let’s see if we can find one that will bring with it significant advances in other priority areas. Something for example will have an impact on fuel consumption, the economy, health and safety. Something that visibly advances the cause of democracy and social solidarity. Something that inspires key players to stand up and take their full part. Something that will give public confidence in the fact that their interests are being protected and that government really cares. Something that you can autally target and then do.

Here is the proposed TARGET: *cut motor vehicle accidents by 10% annually over the coming decade, starting in 2004*. There is certainly plenty of room for improvement. The WHO figures show that Malaysia as a whole with on the order of 8,000 traffic deaths annually is far too high up on the list of dangerous places to drive, and if you look at the WHO listing you will see that the company is not great. <sup>6</sup>

Such an announced target cold be met. It or something very much like it has already been achieved in countries that care, and that information is readily available to you. You will have strong national and international support for a serious program and government commitment, and this can be achieved at least in part at the state level (albeit surely with some need for negotiation).



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<sup>6</sup> See note at <http://wp.me/p3GVVv-5D>

## Rethinking Transport and Public Space in Penang

## 5.4 TARGET MOBILITY FOR RURAL AREAS

Rural mobility -- that is fair, efficient and affordable mobility choices for people living in rural or less densely settled parts of the State -- is in most places around the world a poor stepchild of mainstream transportation policy and practice. There is a well-established pattern on the part of most public authorities in these matters, conditioned by the fact that demand is much of the time too petty and infrequent to warrant the usual public services. As a result in many places the tendency in the name of the economy is to make these services less frequent and worse, rather than more often and better. This is the inevitable consequence of the common practice of looking at these challenges from an incorrect perspective.

The key to the puzzle lies in the phrase which is usually advanced by government, the media and many of the people living in these areas, namely that what is needed in rural areas are “more buses”. And by buses it is invariably assumed that these will be relatively large vehicles manned by professional drivers that operate on the traditionally organized road system following fixed routes and schedules.

The truth is that this kind of service is all together insufficient for the challenges faced in this film new century. We live in a world of much more varied mobility requirements (that is many-to-many as opposed to the old predominant more or less linear services) as well as the whole gamut of new technologies which provide just one or two but a considerable range of alternative mobility choices that now need to be explored. That fixed route scheduled bus services have a role to play is undeniable, but the available options go far beyond this.

So the correct tagline for the necessary 2014 initiative should not be “more buses”, but “more mobility”. And in this case what precisely do we mean by “more mobility”? Taxis, both legal and illegal come to mind, and both of these offer a considerable range of options which in most cases are not being examined her practice.<sup>7</sup>

Another option is various forms of ridesharing in which people who are going somewhere are prepared to share their ride with others. This is a very rich area of innovation and practice which needs to be looked at closely in this context.

Yet another option which is very promising is the new range of proven mobility services that go under the name DRT or Demand Responsive Transit. This is a mode which is well adapted to provide high-quality, affordable services to people living in lower density areas, and which should be part of Penang’s program to improve mobility and quality of life outside of the more heavily settled cities. There are many successful DRT services on the road and plentiful information on them, so there is no good reason that these new approaches to not be given a fair chance in Penang.

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<sup>7</sup> Just because a taxi service may not be recognized or sanctioned by the laws does not take away from the fact that in various parts of Penang there are large numbers of illegal taxis that are providing much-needed mobility services for people day after day. These services need to be better understood and taken into account by policymakers. They are an opportunity to be seized.

## Sustainable Penang: Toward a New Mobility Agenda

## 5.5 LOCAL CONSULTANCY AND ADVISORY CAPABILITY

The transition from old to new mobility requires technical virtuosity and it is my observation that while there are individuals and groups who possess important elements of these skill sets, I can only see the advantages of having a program which consistently tries with each project to improve the knowledge base of groups within the community. I would include it is not only public agencies and the private sector but also universities and civil society more generally.

Thus when a new project is being considered and contracts being prepared, a strong effort should be made by those in charge not only to bring in the most competent international authorities in the various areas but also to partner them with locals so that the expertise, once painfully gained, remains within the community.

Will notice this if you travel to leading cities in the sector anywhere in the world, and that is that there are technical credentials within the local community are at a very high level. That should be a serious program target for Penang.

## 5.6 GENDER PARITY – STARTING WITH PENANG TRANSPORT COUNCIL

As author of this report I have long supported the concept of full gender parity in all public decision-making institutions involved with planning and policy which takes cities, particularly in the field of transportation.<sup>8</sup> The crux of the argument is that transportation policy decisions have been made over the past decades almost exclusively by not only middle-aged males, but also people who have organized their own lives around cars. As a result it is difficult for them off into understand just how important it is to have easy and safe access to other mobility modes.

For some years we have proposed the concept of full gender parity in all transportation Council, and while that is certainly desirable is a goal that is not at all easy to meet in the near term. Nonetheless there is an opportunity in the coming weeks in Penang as you are naming new members to the Penang Transport Council, and we would very much hope that you will increase the number of women on that important planning and decision group substantially.

I can guarantee you that if you get a good quorum you are going to see significant changes in both the matters in which you are providing your counsel and the kind of counsel you get. The wonderful opportunity for Penang!

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<sup>8</sup> This is not the place for me to develop these ideas at length however if the reader is interested you will find abundant materials on this topic at <http://worldstreets.wordpress.com/?s=woman+/>

Rethinking Transport and Public Space in Penang

5.7 SUSTAINABLE PENANG NEW MOBILITY AGENDA GRANT AWARDS  
(Section to follow)



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## 6. BETTER, FASTER, CHEAPER

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### 6.1 WALKABLE CITY PROJECTS

If the city is not walkable, by which we mean a place that offers a pleasant, safe and efficient way to get around by foot, then it cannot pro pretend to be a great city. Penang today cannot by any stretch of the imagination be called walkable city. But on the other hand it offers opportunities to become far more walkable at low cost and within a relatively short period of time, once those in positions of authority except that this is an important target of the city.

There is already some work going on in terms of the “Five Foot Ways”, and these projects should not only be supported but also integrated into an overall area plan so that they can be part of an agreeable walking environment. Incidentally as has been seen in very many cases around the world, good walking environments are also very favorable to local commerce, one more reason for putting these projects at the top of the list for 2014.

Of course we are talking here about not just the project but a program which is going to take at least several years in order to be visible and effective in the broader sense that is necessary for cities to compete for the best. On the other hand there are a number of possibilities of specific projects which can help provide visible signs of the fact that the city is making progress in this important direction.

## Rethinking Transport and Public Space in Penang

## 6.2 WALK TO SCHOOL

The concept of providing for safe walking (and biking) provision for children to go to school is something that has received a lot of attention over the last 15 years. A great deal of information is available on this topic from the international walk to school program for which the URL is [iwalktoschool.org](http://iwalktoschool.org).

The most interesting projects, which we examined to some extent in the various sessions, involve the school working with local government, the immediate neighborhoods and parents and teachers groups in order to create a perimeter area around the school in which neither private cars nor school buses can penetrate. The key to this is the creation of a certain number of designated rendezvous points, possibly in the form of star, which work as insects and gathering areas for students and from which they make their way together to the school. The roads from the rendezvous points are carefully monitored by parents of people in the community to ensure the safety of the children in transit.

These projects work and are good examples of them available for your study and adaptation. It walk to and from school each day of something on the order of a kilometer is important not only for reasons of the children's health but also provides an additional social space for their development, encumbered by a minimum of adult oversight.



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## Sustainable Penang: Toward a New Mobility Agenda

### 6.3 BARRIER FREE GEORGE TOWN

Work with concerned groups, agencies to make a Barrier Free George Town to welcome your growing number of visitors in cruise ships coming to visit George Town and the Heritage Site. The idea is that anybody who gets off the boat and has to visit walking on crutches or in a wheelchair will be able to enjoy the heritage site comfortably and with dignity.

The advantage of such a project is that it should be possible to get support including possibly financial support from the various tourism groups and tourist boats that are coming increasingly often to visit. Also since such a project is so readily apparent to all, it would seem as if the success of this approach would be admired and replicated in other parts of the state.



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## Rethinking Transport and Public Space in Penang

6.4 BIKING PENANG

There are already a certain number of cycling initiatives going on in Penang, but most of the attention until now has been given to recreational cycling as opposed to transportation cycling, i.e. hopefully a healthy and comfortable way to get around the city. This somewhat different approach to cycling is thus far not too well represented or understood in Penang, where the cycling groups are rarely recreational cyclists or racers.

But it is 2013, and cities around the world, leading cities, are increasingly giving attention to how to make cycling safer and more convenient for people of all ages in and around the city. And there is no reason that Penang should not be among them. It is just a matter of vision and then strategy and acts.

There many things that can be done under such a program, some of which appear elsewhere in this report and also in the Penang Transportation Strategy, but one relatively simple thing that could be handled on the basis of a small demonstration project would be to go and meet with a range of employers in both the public and private sector and to discuss with them the possibility of providing facilities for cyclists or using them to come to work. These might include safe parking, showers, changing rooms, lockers for clothes, etc.

One of the reasons why a company might wish to cooperate with such programs – as they do in many other cities that are moving in the right direction on all this – is that it is good for their employees health and often can help them to save money. Experience also shows that the media is eager to write up and present examples of such programs.



## Sustainable Penang: Toward a New Mobility Agenda

Comment from the Netherlands<sup>9</sup>

*From Jaap Rijnsburger, Cycling Lab*

*Given the phase of reporting you are in I have one consideration to share in my thinking on transitions towards sustainable mobility. There are different transition paths per transport mode. In for the transition path for cycling I distinguish a sequence of development stages each of them with its own pulse of gaining momentum, acceleration and stabilisation.*

*Cycling for transport development in Penang is in the first stage, taking off at zero which after the hurdling will stabilise at a critical mass of about 5% mobility share (Paris) . . . after which a new and different momentum needs to be created for the next scale jump toward 10-15% (German cities). NB The then following scale jumps are towards 25-30% (Dutch cities) and ultimately 50% (climate performance), but in my opinion these offer no practical orientations for (stakeholders in) cities in the first scale stage.*

*For gaining critical mass for cycling in the stage Penang is in it will be important to merge interests and join forces with pedestrians. A cycling share of <2% will never lead to serious investments in cycle infra. Pedestrians are at much larger numbers and a fundamental consideration for using bicycles for transport is having sidewalks to escape to (safety) and practicable crossings, bridges and tunnels (access) even when having to push your bike.*

*Lots of success with this very interesting project!*

Raaigras 12, 2804 NC Gouda The Netherlands email:

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<sup>9</sup> Jaap Rijnsburger is a social entrepreneur and environment & development consultant. MSc architect planner, he worked in Kenya and co-created programs on sustainable waste management in Africa, Asia and LAC (1983-2003). President of Dutch Cyclists Union (1985-1995) in 1996 established I-CE Interface for Cycling Expertise and global partnerships programs LOCOMOTIVES (2003-2006) and BPP (2007-2010). In 2003 started Cycling Lab for R&D on cycling-inclusive development and climate-neutral mobility, and the CAN Cycling Academic Network. Working on PhD on transitions towards cycling at a climate-performant scale (50% modal share).

## Rethinking Transport and Public Space in Penang

## 6.5 CONTRAFLOW CYCLING LANES

This is a great and somewhat surprising technique of traffic organization which has made rapid progress in leading cities in Europe and elsewhere over the last five years. We discussed these projects and approaches at some length in the course of the various September meetings in Penang. There is an abundant literature which is available over the Internet to help planners and policymakers make wise decisions about how to go about this. By way of quick first introduction, here are some of the materials which appears on this topic in the Wikipedia (lightly edited for readability):

Contraflow is a common part of decent cycling infrastructure and is often seen on one-way streets. A standard example is that car and other vehicular traffic might have only one lane while on both sides there are bike lanes; one going in the same direction as the vehicular traffic, the other (the contraflow bike lane) allows cyclists to safely go in the opposite direction to the cars. This is allowed as the road may not be wide enough for two lanes of car traffic but there is enough room to allow for the additional bicycle lane; and without it cyclists may be forced to take a long, and perhaps unsafe, detour. Alternatively there is only one bike lane, the contraflow lane, whereas bicycles travelling in the same direction as the cars share the cars' lane. This solution would be more suited to very narrow roads or ones with light traffic.

Contraflow cycling is often assumed to be associated with higher accidents risks, but where it has been properly evaluated, contraflow actually seems to reduce the accidents risk.



Contraflow Lane in Caen, France

## Sustainable Penang: Toward a New Mobility Agenda

## 6.6 PEDESTRIAN AND CYCLING CROSSINGS: DEMOCRATIC PRACTICES

If you are walking or cycling in a leading edge city in any part of the world, you are not going to see very many examples of overhead pedestrian bridges or channels in which priority is obviously given to motorized traffic at the cost of convenience and often safety and health of those were not in cars. There have been enough attempts to make this work, and enough experience with dealing with the impacts of these decisions, that there is now up there consensus at the leading edge for comfort and convenience for nonmotorized transportation.

There are in Penang in addition to considerably too many of those old-fashioned pedestrian bridges, a certain number of crossings which are showing the way to a new pattern of integrating the various competing modes within the same limited public space. All of the technical tools are available in order to carry out these important improvements for sustainable transportation for all, and these can now be put to use quickly and well on the streets of Penang.

We propose that at least five, possibly ten intersections be chosen for study and analysis early in 2014 so that full-scale projects can be launched on the streets in time to see the results by the end of the year.



The Streets of Penang

## Rethinking Transport and Public Space in Penang

## 6.7 PLACEMAKING IN PENANG

Khazanah Nasional and Think City organized a project together with the noted group Project for Public Spaces the goal of which was to identify a certain number of relatively small projects involving better use of public lands in a strategy entitled “Lighter, Quicker, Cheaper” which deserves a second look and would well find its place in the Sustainable Penang program over the course of the year ahead.

## 6.8 THE HEAT?

Is the heat, and the humidity, a barrier to more extensive use of nonmotorized transport in Penang? The fact is that it is very often cited as the reason why walking and cycling not have much of a chance of becoming popular mobility options.

Is that true? If so for who, when, and what circumstances?

Based on what I heard and saw in Penang there was a lot of loose thinking about these important issues – important because nonmotorized transport is a critical aspect of not only sustainability but also an agreeable and competitive city – which has a tendency to work against these important mobility options.

This situation deserves attention and needs to be rectified.

Sustainable Penang: Toward a New Mobility Agenda



The Streets of Penang

## 7. PUBLIC TRANSPORT

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### 7.1 ON-BOARD BUS ANNOUNCEMENTS OF NEXT STOP

We discussed with several of the focus groups the possibility of following the lead of leading cities around the world in ensuring that all of the new buses are equipped with a sound system that announces the next stop clearly at least one minute in advance so that all will be able to get to the door and prepare to exit. There was substantial support for this project.

The immediate reason for doing this is to provide convenience service for the blind and others suffering from visual impairments who cannot or have difficulty in recognizing stops, particularly when they use lines which they're not already familiar with. These announcements will not only be useful for the visually handicapped but also for quite a wide range of other traveling Penangites and visitors.

The great advantage of this approach is that it is low cost and immediately visible as assigned by the fact that new ideas are being tried and improved service for all is being targeted by the government and all those responsible.

### 7.2 CAT SHUTTLE BUS SERVICE IMPROVEMENTS

The CAT Shuttle Buses are proving successful and it would not take very much to turn them into a significant mobility mode for the city. Obviously once reserved lanes are created, they are going to be much more efficient and hence more widely used. Likewise better enforcement of illegally parked cars and other vehicles and objects which render it impossible for the buses to make their way to the waiting areas, will improve both safety and ridership on these important free services.

## Sustainable Penang: Toward a New Mobility Agenda

### 7.3 BRT STRATEGIES

Bus Rapid Transit or PRT is one of the fastest-growing transportation modes in the world today. A recent study has identified a wide variety of projects already in service in more than 160 cities worldwide. There is no reason that Penang should not be on that list.

The ongoing BEST project provides a good learning ground for BRT in Penang, but we can be sure that there are at least 10 and possibly quite a few more roots in which BRT.

As has been indicated it manage of this kind of approach is that it does not depend on anyone being forced out of their car or to use another mode, but rather simply provides an alternative way of getting to work or to some central location which is better, faster and cheaper. Who could argue with that?

### 7.4 ACCESSIBLE PUBLIC TRANSPORT

In 2010 a well-respected English expert on public transportation and accessibility prepared an in-depth report on "Institutional Barriers to Accessible Public Transport" presents a number of remedial projects which merit close attention and selection for implementation. This report is locally available.

### 7.5 TOUR BUS RESTRICTIONS IN HERITAGE SITE

This is an idea which was put forward by the Think City team which strikes this author as something which is easy to do and once again provides not only were comfortable conditions for walking and cycling in the heritage area, but also greater safety. Since the area is not very large, this should impose no particular handicaps for the visiting tourists.

As with all of these projects, there are technical aspects which need to be taken into consideration and dealt with. And as usual and inclusive approach which brings in to the planning and decision process all of those concerned, including in the private sector, various operators and those people and groups living in or close to the heritage site.

## Rethinking Transport and Public Space in Penang



## 7.6 SECURITY AUDITS

When we talk about transportation mobility issues one of the words most often mentioned is that of “safety”. Safety is indeed a problem on the roads and streets, but by and large the word refers to being safe from eventual harm from vehicles.

In Penang as in many other cities around the world there is also the matter of security, which in this context refers to safety from people rather than vehicles. The victims of lack of security in transportation systems are predominantly females and children. This is a real problem and there is very little information around or reporting procedures which prove effective in guaranteeing security for not only these two important groups but for everyone trying to get about in their day-to-day lives.

To this end we would like to propose that attention being given to creating a security audit procedure which is well-defined and easy to apply. It is to be hoped that over the course of 2014 some attention will be given to developing a basic format for collecting information, analyzing it and finding ways in which these problems can be discussed and hopefully resolved.

Sustainable Penang: Toward a New Mobility Agenda



Sungai Nibong Bus Terminal

## 8. NEW MOBILITY INITIATIVES

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An important subset of new mobility is nonmotorized transport as well as strategic adaptation of traditional public transport. Beyond this and other important complement of a sustainable transport strategy is to find ways to improve the use of private cars in sustainable ways. In the following section, we sketch some of the potential new mobility initiatives that were discussed during the course of the Focus Group meetings.

### 8.1 PARK + RIDE

Park-and-ride is an interesting and timely concept for Penang because it not only offers a way to reduce the number of motor vehicles on the street but also is a measure that takes a positive approach. Any car owner who chooses to take advantage of park-and-ride services does so not because they are compelled to but rather because they make individual decisions that such services, when they are about right, offer economic and convenience advantages over the alternative which is often getting stuck in traffic.

Park-and-ride has already gotten off to an at least moderately successful first step in conjunction with The Penang Bridge Express Shuttle Transit (BEST) project. And while that is a good starting place, it is certainly not the only one and it has also been recommended by the Penang Transport Master Plan Strategy that more attention be given to this combination of innovations.

We hardly support this recommendation, and also would like to express a strong belief that as these services mature their initial teething problems will go away and they will provide highly attractive alternative mobility services to the community at large.

## 8.2 TAXI INDUSTRY THINKING AND TALKING PROJECT

Including both legal and illegal taxis there are something like 5000 motor vehicles on the street or waiting for customers in Penang with drivers whose job it is to provide transportation services for people who need a lift. For various reasons that we do not need to go into here (but will later), the taxi industry has in most parts of the world ever been brought into the sustainable transportation family and a legitimate and potentially important mobility mode. And that in our view needs to be a first step in the direction of integrating the taxi in ways that will be economically attractive to the drivers and owners and provide better transportation options for those who need them.

There is a lot of conflict around operating conditions and practices in the sector in Penang, which suggests that this is an area for continuing exchanges and searches for creative compromises and partnerships. This is too important a mobility asset to be wasted. And the best way to bring it up a notch or two is to keep talking.

## 8.3 STRATEGIC SUPPORT FOR MOTORIZED TWO WHEELERS

Motorized two wheelers are the unexpected guest at the table of 21<sup>st</sup> century cities which planners, policymakers and even the academics were not at all prepared. As presently used in Penang there are many things that are wrong with them: they are driven often in a dangerous manner, and speech which are not compatible with city streets, are not respectful of pedestrian or other vehicle traffic, are poorly maintained, highly polluting, and generally dangerous and unhealthy for all concerned, including above all the people driving.

On the other hand citizens choose to buy and operate these vehicles because for them they are the cheapest and fastest way of getting around, and this decision in a free society has to be respected. But this does not mean that there is not an important goal for public policy to reduce the downside and bring them into the transportation family as full and respected members.<sup>10</sup>

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<sup>10</sup> The cities of Tainan and Kaohsiung in Taiwan have been giving careful attention to strategic improvements of these modes over the last several years. They represent interesting talking partners for any Asian city wishes to build on their experience.

## Rethinking Transport and Public Space in Penang

#### 8.4 TRISHAW PROGRAM

The trishaws of Penang are a major public asset and not only for tourists and visitors. They have in the past had a significant social as well as mobility role, and at one point not too long ago were well integrated into the life of an agreeable city. At present however, this mode is suffering from a number of problems and to an extent it is almost a miracle that they have survived thus far. Many Asian and other third world cities have effectively eliminated their own trishaw services, on the grounds that they impede modern traffic and have no role in a modern city. They are wrong.

It is not difficult to see how these services and the people who depend on them for working income can be integrated easily and effectively into a more agreeable city, a walkable city, a city which is well positioned to compete for the most talented people in enterprises in the world because it is just a great place to live.

#### 8.5 BLOG OF BLOGS

One of the important things that we are seeing in leading cities around the world is that citizen participation through blogs and newsletters is very important in shaping the awareness of the public and policymakers. A certain number of these blogs already exist in Penang, however their contents are dispersed and therefore difficult to get at. In addition number of the blogs cover matters other than those that relate to mobility and the use of public space.

There is an excellent model for such a digital turntable that got started about a decade ago in New York City in which you can see today at <http://www.streetsblog.org/>. The basic model has been made available to other cities and if you check out the site you will see that there are presently half a dozen other cities using this model for their work in following transportation developments and problems in their cities.

## Sustainable Penang: Toward a New Mobility Agenda

## 8.6 UNIVERSITY NEW MOBILITY PROGRAMS

Given the fact that USM is one of the first universities in the developing world to have created a full-time degree granting program in sustainable development, with the only appropriate that the university campus would give proof to the ideas of sustainability and social justice.

Certainly the most striking way to do this would be to do whatever is required to create a car free campus, however the main university site in Penang is not for reasons of geography really lend itself to such a radical program is to be entirely car free. However a great deal can be done to reduce car traffic on the campus and at the very least a strategic plan to be drawn out to show how this can be accomplished. Without having the time or mandate to go into the details on that, I can tell you from experience that this efficient application it is possible to create significant reductions in car traffic on yours or any university campus.

Another important sustainable transportation project that we would like to see the university it serious attention to is that of creating a barrier free campus. At the present time getting around by wheelchair is not next to impossible, it is actually impossible. The few adjustments that have been made during their only make it even more clear that any student, faculty member or visitor with physical mobility limitations is going to find being at the University and unpleasant experience.

I very much hope that your fullest attention will be given to these two in yet other new mobility projects for the University.

## 8.7 CARSHARING IN PENANG

Only a few years ago this would have seen to be an inappropriate suggestion, however much is changing much as been learned over the last several years about how to bring carsharing to any community, and not only in larger, more established, wealthy cities of the so-called advanced nations.

This is an entirely possible option and with the understanding and support of the government, and active participation of entrepreneurial firms, carsharing can very quickly become a reality in Penang. That knowing too much about it, it would strike me that the best place to get started with testing the ground would be in Pulau Tikus which has just about perfect profile, geographic, demographic, urban and economic for a full-scale demonstration.<sup>11</sup>

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<sup>11</sup> For extensive background information about existing carshare operations and planning, along with latest and often surprising developments in the field which is one of the world's fastest-growing transportation options, a good starting place is <http://goo.gl/1G8ViQ>.

## Rethinking Transport and Public Space in Penang

### 8.8 A STRATEGIC PARKING PROGRAM FOR PENANG

This is the politically an extremely delicate area when it comes implementation, and for that reason it is extremely important that you start to organize your thinking on this as early as possible. There is an extremely rich body of materials and experience which is available for consultation, and some excellent technical counsel available in leading situations in Southeast Asia.

### 8.9 CITY WITHIN THE CITY (PULAU TIKUS)

Pulau Tikus has recently initiated a program of one way streets running to the middle of the city which is showing some advantages but at the same time is getting a great deal of resistance from both the people living there, working there and traveling through. This is not only a problem however it is a great opportunity because this is a project which could be made into a great template for other parts of the state and beyond.

Today Pulau Tikus is a place for which many people drive to get somewhere else and in which the people who live there have to take a car to get to where it is they want to go. This is unfortunately a familiar situation which can be found in many well-off suburbs of older cities. It is not necessarily the best way in the world in which to live.

This remedial program has to be as much about land use as it is about transportation, so a combined approach is absolutely essential. There are a number of problem areas and project opportunities, one being to see if the area can be considered as a place within which people can safely walk and cycle for many of their day-to-day requirements, a situation which definitely does not exist today. Successful moves in this direction would not only provide health and amenity benefits for the people living and working in that area, but would also open up business opportunities which the one-way system by itself is doing little to help.

The first step in this process is indeed to have a powerful vision for Pulau Tikus, and one part of that might be to consider it as a city within the city. A place which could have many amenities in a protected environment as well as serving as a hub for a variety of transportation modes. There is a lot of work to be done to make this happen, but with strong leadership and a shared widely shared vision Pulau Tikus could have a wonderful future ahead of it.

## Sustainable Penang: Toward a New Mobility Agenda

## 8.10 LEADING BY EXAMPLE

In this case, the elected officials and all senior administrative personnel undertake to travel to work one day a week by some means of transportation other than a private car. This constraint will be either something decided by a farsighted political leader, or otherwise the result of strong electoral pressure from a number of public interest groups who get together to ensure that this will be part of the electoral victory package. It could work like this.

On one day each week these public servants will undertake to travel to work by each of the following measures:

- Public Transportation
- Bicycle
- Taxi
- Walking
- Ride-sharing/carpooling
- Rental car (24 hour contract)
- Trishaw

The idea is that each of these trips should take place under “normal transportation circumstances” exactly as our enjoyed by the citizens of the city in their day-to-day lives. In each case there should be a requirement to vary the routes is so that the traveler is exposed to a wide range of conditions.

The proposal makes no particular recommendations as to what is to be done with the results of these weekly trips, with the thought that what is learned in the process of “shared citizen experience” will be self-evident.

How is the performance on this measure to be monitored and thereby guaranteed? This could be the form of an open public reporting process through the city’s communication channels to its citizens. It might be expected that these results will also be reported by the press and other communications channels of the public interest groups of behind this proposal.

## Rethinking Transport and Public Space in Penang

## 9. NEXT STEPS

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### 9.1 IMPLEMENTATION

It is all well and good to review the present realities and requirements of Penang on the one hand and search the field of best practices in leading cities which are worthy of close attention at this time. But between a good idea and on street reality there is a process of study decision, preparation and implementation which needs to be engaged

Who are going to be the individuals and institutions ready to step up and make it a priority to help move one or more of these projects ahead. The most immediate candidates who come to mind are at the level of the institutions of Penang State, along with the two Municipal Councils. If the various organizations and agencies within the government groups are willing to look more closely into this or that project which seems to be well matched with their needs and possibilities, this is certainly going to be an important step in the process of actually achieving something concrete.

Most cities and state institutions around the world bring in consultants and experts on a regular basis who attempt to help them identify remedial policies and other initiatives which are needed. But what happens all too often is when the expert is no longer present or directly implicated in the process of implementation, that many of these good ideas just fall aside. More empty promises!

But these levels of government are not the only actors are institutions who can get involved, who need to get involved directly in order to change the overall transportation configuration. Other important actors who need to be solicited and brought into this process include:

- The full gamut of transportation operators
- The business community in all its dimensions
- Universities, schools and research groups
- Local consultants and sources of expert capacities
- Civil society, which in Penang is extremely rich and which can indeed become an active player that can make a difference.
- Businesses and organizations associated with tourist sector
- Technology startup groups
- Financial institutions including the insurance industry
- Foundations

The move to a sustainable Penang will not be accomplished by government alone. It is a challenge for the community and all its varieties and possibilities.

## Sustainable Penang: Toward a New Mobility Agenda

## 9.2 REORGANIZATION

In most parts of the world the transportation planning and policy function represents an anomalous vestige of past ways of thinking about the sector which are not well adapted to present circumstances, and certainly not to cities.

For this reason it is important to give thought to the reorganization of the transportation and related functions that reflect the realities and possibilities of modern society. There are several of them immediately to mind in light of what I observed and learned about during my time in Penang.

## 9.3 GAIN GREATER AUTONOMY

There was a time and there are still today places in which the transportation and other related functions are often in a large part, taken over by national government. Whatever the advantages of strong central government at all levels may have been at earlier times, this is no longer the case today.

The key word is subsidiarity, an admittedly not very pretty expression which is used particularly in Europe where it is now agreed that the levels of government which are closest to the people are those best qualified to understand and meet many of their needs. In *Europe* the Maastricht Treaty asserts the rights of member nation states through the subsidiarity principle

The *Oxford English Dictionary* defines subsidiarity as the idea that a central authority should have a subsidiary function, performing only those tasks which cannot be performed effectively at a more immediate or local level. The concept is applicable in the fields of government, political science, management and other kinds and sectors of decision-making. In political theory, subsidiarity is sometimes viewed as a principle entailed by the idea of federalism, making it a very important topic for discussion in Malaysia.

This is not the place though I have the confidence to dig into this to the extent to which the topic deserves. But in my observations and conversations while in Penang, I continually ran across important issue areas where decisions are being made by central government that could better be made by state and local governments. I can only very much hope that these ideas will be brought into the domain of public discussions and the media, since getting on the right side of them could make a big difference in the quality of service and the quality of cities across the country.

## Rethinking Transport and Public Space in Penang

## 9.4 INTEGRATING TRANSPORTATION AND CITY PLANNING

The first step requires the careful integration of transportation and city planning since there is no doubt that these two go hand-in-hand. In fact any analysis of what appeared to be transportation problems and shortcomings in any given city will, upon study and reflection, have fully half of the “solutions” that are needed coming in from outside the traditional transportation sector. Thus land-use regulations, zoning and related practices need to be closely integrated with new mobility adjustments to create an efficient, safe and beautiful city for people to live, work, study and play in.

## 9.5 IMPROVING BALANCE OF THE TRANSPORTATION MODES

The transportation planning and policy function is today in most parts of the world and in Penang entirely out of balance. We know that mobility improvements are going to come from outside of the traditional organization, and thus it is recommended that the competence and expertise of the institutions responsible for making policy decisions and investment in the sector be appropriately balanced to integrated take advantage of the full range of mobility modes. These include (of course):

- Road streets and other transportation infrastructure (construction, maintenance, and above all efficient use)
- Parking
- Public Transportation
- Pedestrian Infrastructure and Support
- Cycling Infrastructure and Support
- Competence in new ways of using cars, including Ridesharing, Carsharing, Etc.
- Taxis, Jitneys
- Private and community bus services

The point is this. Unless the full range of transport modes is not brought into the center of the planning and budgeting process, today’s imbalance will continue to the detriment of all.

## Sustainable Penang: Toward a New Mobility Agenda

## 9.6 THE 2014 OVERSIGHT FUNCTION

Is there a need for a global oversight function in order to follow these projects over the coming year, if indeed such a decision is made, and who is best positioned to do the job?

Obviously there is a clear candidate Given the existence of Penang Transport Council, especially concerning the close relationship that the points made and recommendations of this paper potentially relate closely to the near-term goals and targets of the Penang transport master plan strategy. That said, given the wide range of organizations that need to be brought into this process such a function should be considered one of organization, coordination, and the extent possible to monitoring progress the various projects which constitute the 2014 Sustainable Penang New Mobility Agenda as set out in draft form here.

To conclude for now, this is an important point because past experience suggests that if there is no one who undertakes responsibility of seeing to it that all of these various projects and proposals are brought along and moved from paper to the streets of the city, then there is a possibility that many of them will be loss in the process of inattention.

## 9.7 SMALLER CITIES PARTNERSHIP PROJECT: 2014-2015

I would also suggest that you consider opening up working links with colleagues in the governments of the following five outstanding “smaller cities” two European and three Asia-Pacific, each of whom have been doing some interesting things that you may well wish to learn more about, and at the same time share your on-going New Mobility ideas and experience (and questions) with them.. On this short list of working city partners, I would suggest that you consider getting in touch with the appropriate authorities in the following cities (and we would be pleased to provide additional introductions if they could be useful).

- Utrecht, The Netherlands
- Tainan, Taiwan
- Strasburg, France
- Suwon, Korea
- Adelaide, Australia

## Rethinking Transport and Public Space in Penang

**9.8 2015 INTERNATIONAL CONFERENCE:**

How to make sure that projects which have been identified here, and all of which come directly from one or more of the organizations and groups who were involved in this collaborative project over these last months, are given the attention and work needed to ensure that they actually get done?

It was in this context that we came up with the idea of organizing an international conference in the first half of 2015 in order to review the results and accomplishments of the 2014 program in a high-profile events.

We propose that the theme of the conference will be “Sustainable Transportation Strategies for Smaller Asian Cities”. This could be a very interesting and original that and the target of the “smaller Asian city” becomes particularly interesting when a review of the literature and statistics shows that there are some 300 cities in different parts of Asia that fall into the category of having between .5 and 2.5 million inhabitants. Today these 300 cities are home to approximately half 1 billion people, but it is likely that over the course of the next couple of decades they will grow considerably faster than the megacities and might eventually expand to the total population of close to 1 billion.

The “smaller Asian city” is particularly interesting not only because there are so many of them, but also because a higher proportion of them have made sure big mistakes in their investments and constructions that has been the case in the larger cities across the region. They thus have an opportunity to see themselves as the different environment requiring different approaches, and in my own work around the region I have seen a number of such cities which are already starting to be engaged in the process of creating more sustainable transportation and life quality arrangements.

To the best of my information this would be the first such conference that has ever been held on the smaller Asian city in the context of sustainable transportation strategy. It is my considered view that this could be very interesting asset for Penang and Malaysia.

## 9.9 SUSTAINABLE PENANG: COOPERATIVE UNIVERSITY PROGRAM

Penang is fortunate to have a major university program at the University of Science-Malaysia (Universiti Sains Malaysia) which is dedicated to prepare graduate students to work in the field of sustainability, the Centre for Global Sustainability Studies (CGSS).

We see this as being a major opportunity for both the students and Penang more generally if we can find ways to link to their learning process and contributions to specific aspects of the Sustainable Penang project which is now getting underway. Just to cite an example at hand, virtually any of the projects or programs which are indicated in these pages could be the topic for the useful analysis on the part of a graduate student either in the form of a term paper or thesis.

Such cooperation would not only be a great opportunity for the students, but also could provide some additional perspective and insights as result of their analysis and final conclusions and recommendations.<sup>12</sup>

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<sup>12</sup> The director of this program is Professor Dr. Kamarulazizi Ibrahim

## Rethinking Transport and Public Space in Penang

## 9.10 AND IN CONCLUSION

Penang's transportation, mobility and public space conditions and practices leave a great deal to be desired and are moreover continuing to deteriorate steadily. But it does not have to be this way, you have a choice if you are brave enough to make it.

The "good news" is this and that is there is virtually nothing that is original about the circumstances of inattention, inconsistency and decay; these are the same we see in the vast majority of all cities across the developing world. And unless there is a significant change in public policy, it will most likely continue its steady decline.

That is not to say that there are not projects and policies which are going in the right direction. However overall the situation is one of every day more cars, more traffic, more congestion, more pollution, more lost time, more anger, more isolation, more accidents, more noise and fewer good affordable options for getting around for the vast majority of the population. The system is inefficient, and sustainable and unjust.

There are long list of reasons why the state of Penang needs to turn the situation around and without undue delay. One of these is that cities In the 21<sup>st</sup> century compete vigorously and any city which is not a pleasant and efficient place to live and work is going to lose out in the international competition. The brightest young people will leave such a city and it cannot expect to compete successfully for new investments, jobs and the creativity of the brightest and best in the international arena. Quality of life in all its many aspects is important and not just an aesthetic detail for some.

So for all these reasons now is a good time for Penang to start to look hard at what can be done to make the city not only a great place to live and work but also a vigorous competitor for the best. Fortunately all the news is not bad, and in fact Penang possesses a number of real advantages, potential and eventual tools and measures that you can put to work for this reconversion effort.

The good news is that you now has in hand virtually everything needed in order to start to initiate and advance a major sustainable transportation reform over the course of the coming two years. You have the money, the technical capacities, the institutional framework, the autonomy and the ideas and examples that are needed to make major improvements, many at very low cost and well within the 2015 time horizon of the Transportation Master Plan

## Sustainable Penang: Toward a New Mobility Agenda

Your new Transportation Master Plan sets out a number of the institutional and technical reforms needed to improve the performance of all aspects of transportation in the state efficiency, environment, economy, resources, energy, and quality of life for all. Treat this as your solid point of departure.

You have in place a solid institutional structure, led by the State, supported by the Penang Transport Council, and perhaps above all to be led by the dynamic Municipal Councils on the island (MPPP) and the mainland (MPSP). All of which supported by one of the most well developed network of civil society and public interest groups in all of Asia. These are huge assets for your transformational program.

You have sufficient money under your control to make a virtually all of the improvements which are necessary over the course of the next two years, if you concentrate above all on the *management* of the transportation assets you already have in place, as opposed to doing as in the past, namely spending large sums on new construction projects to solve your problems. The priority at this point is not to expand supply of unnecessary infrastructure, but rather to manage and use it better. Your recently completed Transportation Master Plan provides a number of useful guidelines for how to do this.

Upon due consultation with a considerable range of the key organizations and actors in the sector, with the help of my colleagues at Think City and all those who have so generously given of their time and ideas over these last weeks, we have come up with the provisional short list of specific project initiatives which are set out in these pages, can be done quickly, and which are entirely under the control of state and local governments.

If we think of the world cities today as being roughly divided into “leading” and “lagging”, the truth is that Penang in 2013 is in the latter category. But so too not all that many years ago were many of the leading cities today are showing the way, most of which had previously been the victims of inconsistent, unthought-out, unimaginative, and inefficient transportation policies themselves.

The lesson is that you do not wake up in the morning and find yourself suddenly a “leading city” in this respect. But that to occur there needed to be a vision, a strategy, plans and actions of which individually and collectively started to change the shape of the city and the quality of everyday life for the people who live and work there but also for visitors who come because they are eager to see and be in a situation in which an agreeable and sustainable city environment has been achieved.

## Rethinking Transport and Public Space in Penang

**9.11 PS. DID ANYONE MENTION CLIMATE?**

There are a thousand excellent reasons at the level of any city and the people who live there to rationalize their transportation arrangements: cost, efficiency, reliability, affordability, safety, choice, noise, pollution, danger, quality of life and more. But there is one more which for most of us is so distant, so abstract and so puzzling that it does not enter into our calculations in any serious way. And that has to do with the survival of our planet through climate modification.

For the record, our transportation arrangements all in account for approximately 20% of the ecological footprint of man on the planet. And the main source of this footprint relates to fossil fuels and in general the way that the transport sector is generating carbon at every turn in the road. A low-lying city like George Town, and more generally Penang and much of Malaysia, is going to suffer greatly unless we somehow collectively figure out how to get on the right side of global warming. Working towards sustainable transport for Penang has to be one that we should all be considering.

With the help of a better sustainability strategy, our cities can take advantage of a combination of common sense, human decency, modern technology and operational methods in order to considerably decrease the carbon content of the transport sector. This is not something we have to wait for, but something we can start to do in significant ways already in 2014. So if there is not another reason for working together toward sustainable transport in Penang, this has to be one that we should all be considering.



The Streets of Penang, Saturday, April 6, 2013

## Sustainable Penang: Toward a New Mobility Agenda



## ANNEXES

## A. SUPPORTING PROJECT WEB SITES

*(References are clickable)*

- [Mission Statement](#)
- [The Project In Brief](#)
- [Calendar of Events](#)
- [Supporting Documentation](#)
- [Sponsor: Think City](#)
- [World Streets on Penang](#)
- [Supporting Facebook Page](#)
- [Sustainable Penang/Linked-In](#)
- [Sustainable Penang/Google +](#)
- [Documentation Centre](#)
- [Our Shared Library](#)
- [Final Report: Phase 1 \(Summary\)](#)

## Rethinking Transport and Public Space in Penang

## B. CALENDAR OF MAIN PUBLIC EVENTS AND INVITATIONAL WORKSHOPS

(Full documentation available on events at <https://www.dropbox.com/home/Penang>)

## Date/Event

- ✓ 22/9 Celebration of Penang's 2013 Car Free Day
- ✓ 23/9. Focus Group 1. Media Partners - *Caring Society*
- ✓ 23/9. Focus Group 2. Automotive Industry- *Caring Society*
- ✓ 24/9. Focus Group 3 Academia/University/Research/School - USM
- ✓ 24/9. Sustainable University Dialogue (Invitational) - USM
- ✓ 25/9. Focus Group 4. Transport Operators - *Caring Society*
- ✓ 25/9. Focus Group 5. Professional Associations - *Caring Society*
- ✓ 25/9. Focus Group 6. Civil Society - *Caring Society*
- ✓ 26/9. Focus Group 7. Regulators - *Caring Society*
- ✓ 26/9. Focus Group 8. Non-Motorized Transport - *Caring Society*
- ✓ 28/9. Focus Group 9. Hacking Sustainable Penang - *Caring Society*
- ✓ 30/9 Transport Council Open House - *Caring Society*
- ✓ 30/9. Master Class 1 (Sustainable Development, Economy and Society) - USM
- ✓ 01/10. Municipal Council Peer Dialogue - MPSP
- ✓ 01/10. Master Class 2 - (Toward a New Mobility Agenda) - USM
- ✓ 02/10. Municipal Council Peer Dialogue - MPPP
- ✓ 02/10. Master Class 3 - (Action measures and projects for 2013/14) - USM
- ✓ 03/10. Symposium On The State Of The Environment In Penang – (On invitation)
- ✓ 03/10. Master Class 4 - Preparing for 2015 Penang conference: Implementing Sustainable Transport in Smaller Asian Cities - USM
- ✓ 04/10. Peer Dialogue with Penang Transport Council (Invitational) – KUMAR
- ✓ 05/10. Final Media Conference - State of Sustainable Penang Message and proposed 2014 work program: Penang Municipal Park Amphitheater

## Sustainable Penang: Toward a New Mobility Agenda

## C. KEY INSTITUTIONS

*Following listings are clickable*

- [CAP Bicycle Campaign](#)
- [Caring Society Complex](#)
- [Center for Global Sustainability Studies](#)
- [Consumers Association of Penang](#)
- [Malaysian Institute of Planners](#)
- [Malaysian Institute Of Road Safety Research \(MIRES\)](#)
- [Ministry of Transport](#)
- [Municipal Council of Penang Island](#)
- [Penang Ferry Service](#)
- [Penang Forum](#)
- [Penang Heritage Trust](#)
- [Penang Institute](#)
- [Penang State Government](#)
- [Penang Transport Council](#)
- [Penang Women's Development Corporation \(PW DC\)](#)
- [Rapid Penang Bus Company](#)
- [Sahabat Alam Malaysia \(Friends of the earth\)](#)
- [Seberang Perai Municipal Council.](#)
- [Sustainable Penang](#)
- [Think City](#)
- [TRANSIT: Malaysia's public transport forum](#)
- [United Nations ESCAP](#)
- [Universiti Sains Malaysia](#)
- [Women's Centre for Change Penang](#)

Rethinking Transport and Public Space in Penang

D. TABLE OF IDEAS

SUSTAINABLE PENANG: TABLE OF IDEAS			
IDEA	STATUS New Idea/Pipeline/ On Going	LEAD AGENCY / CHAMPION	PARTNERS
<b>A. PUBLIC TRANSPORT</b>			
(1) Security & Safety			
i. Security Audits (personal safety)	New Idea	Police / Community Policing	
(2) Bus Stops	New Idea	TMU / PTC / PWDC	
i. Time table / LED	New Idea	PTC / TMU	
ii. Braille	New Idea	PTC / TMU	
iii. Basic Info	New Idea	PTC / TMU	
(3) Buses - Audio Announcement & LED signs for next stops	New Idea	PTC / TMU	
(4) B.E.S.T. 2			
i. Heavy Occupancy Vehicle Lanes			
(5) Black Market Taxis "Kerato Sapu"			
i. Study, integrate			
(6) CAT Free Shuttle Service			
(7) Taxis			
i. Integrate into global transport plan			
ii. Taxi drivers' First Aid Course			
iii. Social Service to supplement their incomes			
iv. Emergency buttons in taxi to alert police, Taxi HQ, other taxis			
(8) Water Transport			
i. Water buses	Pipeline		Federal Govt. / Private Sector
ii. Water taxis	New Idea		Federal Govt. / Private Sector
(9) Trishaw Services			
i. Complement free bus shuttle	New Idea	TMU / Think City	Trishaw Association
ii. Heritage Tours (to be formalized)	On going	TMU	Trishaw Association
iii. STAR Cruise (to be formalized)	On going	TMU / Star Cruises	Trishaw Association
iv. Integrate into Low Cars Streets	New Idea		Trishaw Association
v. Trishaw Awareness Campaign	New Idea	Think City	Trishaw Association
(10) Ride Sharing / Carpools			
(11) Car Sharing / Shared Cars			
(12) Reserved Lanes for Heavy Occupancy Vehicles on Bridge	On going		
(13) Reserved Lanes for Heavy Occupancy Vehicles	On going		
<b>B. NON-MOTORISED TRANSPORT</b>			
(1) Bicycles			
i. Cycle paths / protection	New Idea		
ii. Bicycle Rental / Coordination	On going	TMU / MPPP / MPSP	Private Sector
iii. Tours			
a. Heritage Routes (to be formalized)	New Idea	TMU / MPPP / MPSP	Private Sector
b. Night Tours (to be formalized)	New Idea	TMU / MPPP / MPSP	Private Sector
iv. Cycle Sundays			
v. Public Bicycle Sharing Systems	New Idea	TMU / MPPP / MPSP	Private Sector
(2) Bicycle Parking			
i. Paid Bicycle parks (security, lockers, showers)	On going	GAMA Supermarket	
ii. Free Bicycle parks	New Idea	MPPP / MPSP	
(3) Cyclable Neighbourhoods	New Idea	TMU / MPPP	
i. Proposed Neighbourhoods	New Idea	TMU / MPPP	
a. Straits Quay	New Idea	TMU / MPPP	

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IDEA STATUS LEAD AGENCY PARTNERS

b. Cecil Street	New Idea	<del>TMU</del> / MPPP	
c. Reservoir Gardens	New Idea	<del>TMU</del> / MPPP	
d. <del>FARLIM</del>	New Idea	<del>TMU</del> / MPPP	
e. <del>Jelutong</del> Market area	New Idea	<del>TMU</del> / MPPP	
(4) Cycling Tracks in Housing Estate gardens	New Idea		
(5) Cycling Education / Course for Public	New Idea		
(6) Trans Island Bicycle Project			
(7) Bike Lanes ( <del>Tanjung Bungah</del> )			
(8) Pedestrianization Plan for George Town	On going	MPPP	
<b>C. CARS / TRAFFIC</b>			
(1) Strategic Parking Plan / Implementation Package			
(2) Improving Parking Enforcement	On going	MPPP / MPSP	
i. Improve frequency of patrols & random checks	On going	MPPP / MPSP	
ii. Use lighter clamps	On going	MPPP / MPSP	
iii. Increase personnel	On going	MPPP / MPSP	
iv. "No Exception" policy	New Idea	MPPP / MPSP	
v. Bus drivers to signal offences in real time	New Idea		
(3) Park & Ride	<del>On going</del> / Extended		
<b>D. PUBLIC SPACES / SHARING</b>			
(1) Street Sharing			
i. Bicycle lanes		<del>YBs</del> / MPPP / MPSP / IKB	
ii. Pedestrian Priority		<del>YBs</del> / MPPP / MPSP / IKB	
iii. Barrier Free pavements		<del>YBs</del> / MPPP / MPSP / IKB	
(2) Back Lanes			
i. Care Free Link			
ii. Best Use Competition	New Idea		
a. Beautification	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del>	Local Communities
b. Pocket Parks	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del>	Local Communities
c. Other public Use	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del>	Local Communities
iii. Pedestrian shortcuts		<del>YBs</del> / <del>Councillors</del> / <del>TMU</del>	Local Communities
(3) 5-Foot-Ways			
i. Remove obstructions	On going	MPPP	<del>PHT</del>
ii. Connectivity	On going	MPPP	<del>PHT</del>
iii. Setback for new buildings breaks connectivity	Ongoing	MPPP	<del>PHT</del>
(4) Tour Bus Restriction			
i. Heritage Site			
<b>E. EDUCATION AND MEDIA</b>			
(1) Walk / Cycle to School			
i. Rendezvous points	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del> / PTA	School Bus
ii. Transport to school			
a. School bus operators should expand areas of coverage	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del> / PTA	School Bus
b. Consider alternative modes of transport to school	New Idea	<del>YBs</del> / <del>Councillors</del> / <del>TMU</del> / PTA	
(2) Detailed Signage System			
(3) Public Education & Awareness Campaigns		<del>TMU</del> / MPPP / MPSP	Media Partners
i. Constant Reminders		<del>TMU</del> / MPPP / MPSP	Media Partners
a. Media		<del>TMU</del> / MPPP / MPSP	Media Partners
1. Constant reporting on transport issues		<del>TMU</del> / MPPP / MPSP	Media Partners
2. Special journalists		<del>TMU</del> / MPPP / MPSP	Media Partners
ii. Feature stories		<del>TMU</del> / MPPP / MPSP	Media Partners
a. Creative video clips	New Idea	<del>TMU</del> / MPPP / MPSP	Media Partners
b. Websites	New Idea	<del>TMU</del> / MPPP / MPSP	Media Partners

Working draft as at 11/29/2013 10:29 AM

Rethinking Transport and Public Space in Penang

IDEA	STATUS	LEAD AGENCY	PARTNERS
c. Blogs	New Idea	TMU / MPPP / MPSP	Media Partners
d. University communications projects	New Idea		
e. Campaign by local authorities	New Idea		
iii. Children's / School Programme			
iv. Public Transport "App"			
<b>F. PUBLIC MEASURES</b>			
<b>(1) Projects for MPSP</b>			
i. Bicycle Lanes	On going	MPSP	
ii. Car Free Days	On going	MPSP	
iii. Park & Ride	On going	MPSP	
iv. Green Ride	On going	MPSP	
v. Car Pooling / Share Riding	On going	MPSP	
<b>(2) Projects for MPPP</b>			
<b>(3) Pulau Tikus Area - Walkable Community</b>			
	Pipe Line	State Assembly Person / State Govt	Residents Association
i. One-way streets restrictions			
<b>(4) Car Free Zones / Days</b>			
i. YR Ng Wei Ai's Project	Pipeline	State Government	GTWH
a. Cultural	Pipeline	State Government	GTWH
b. Sports	Pipeline	State Government	GTWH
c. Play	Pipeline	State Government	GTWH
d. Eco-Friendly	Pipeline	State Government	GTWH
<b>(5) Tele-Commuting Programme (1 Day / Week?)</b>			
	New Idea		
<b>G. CHAMPIONS</b>			
<b>(1) Funding &amp; Sponsorships</b>			
i. MPPP / MPSP / State Assembly Representatives	New Idea	TMU	
ii. NGOs eg Rotary Club, Lions, Business Chambers	New Idea	TMU	
<b>H. GENDER PARITY</b>			
i. Reasons			
ii. Transition			

**Legend**

- GTWH: George Town World Heritage Incorporated
- MPPP: Penang Island Municipal Council
- MPSP: Seberang Perai Municipal Council
- RHT: Penang Heritage Trust
- PTA: Parents-Teachers Association
- RTG: Penang Transport Council
- RTMR: Penang Transport Management Plan
- TMU: Transport Management Unit
- YRg: Member of State Legislature

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The Streets of Penang

