



Kaohsiung
1-31 October

EcoMobility WorldFestival 2017

One month
One neighborhood
Ecomobile

A summary of the first week
Calling for ecomobility in Kaohsiung



“One neighborhood. One month. Ecomobile”: Calling for ecomobility in Kaohsiung

In October 2017, the third edition of the EcoMobility World Festival is taking place in the historic Hamasen neighborhood of Kaohsiung.

One week into the Festival, ICLEI presents first impressions and a snapshot of the Festival in action through this brief report.

On 1 October 2017, the Opening Ceremony of the Festival marked the beginning of one month of ecomobility in Hamasen. The neighborhood has been transformed into a dedicated space for ecomobile modes of transport such as walking, cycling, public transport, shared vehicles and light electric vehicles.

EcoMobility means travelling through integrated, socially inclusive, and environmentally friendly options: namely walking, cycling, wheeling and public transport options.

EcoMobility World Festivals

An EcoMobility World Festival is a live demonstration of how cities can take a bold step to create a forward-thinking urban transportation culture through ecomobility.

Held every other year in different cities, the Festival is a mise-en-scène of the future of urban mobility in a real city, with real people, in real time. A Festival is an avenue for city governments to experiment with creative ecomobile solutions to create more livable cities. It also gives residents the opportunity to experience how traveling through integrated, socially inclusive and healthy transport options can improve their quality of life.

Previous EcoMobility Festivals were held in Suwon (South Korea, 2013) and Johannesburg (South Africa, 2015)
<http://www.ecomobilityfestival.org/festival/>



Figure 1 View of Kaohsiung

Kaohsiung, the host city 2017

Kaohsiung (2.7 million inhabitants) with its world-class port, used to be an industrial city. For several years, the city has been working on transforming the economy and becoming a

more livable city, putting sustainable transport at the core of their strategy. Transport in Kaohsiung is currently heavily relying on motorcycles causing traffic congestion, air pollution and road accidents. To address these key challenges, Kaohsiung has been investing in public transport infrastructure such as Metro (MRT) and light rail (LRT) to offer residents sustainable transport alternatives. Particularly in the past two years, as Kaohsiung was preparing for the 2017 Festival, the city has focused on Hamasen to transform the neighborhood into a friendlier environment for pedestrians and cyclists.

The modal share of the entire city of Kaohsiung in 2017:

				
Motorcycles	Personal car	Public transport	Cycling	Walking
61.3%	20.5%	7%	5.4%	4.5%

Kaohsiung’s key goals include the reduction of CO₂ emissions, air and noise pollution, congestion and an increase in biking, walking and electric vehicles. For the Hamasen neighborhood, such figures will be available only after the Festival.



Figure 2 The Siziwan Metro Station, the final destination of the orange line, ends in Hamasen

Kaohsiung public transport in figures

2 metro lines with 51.4 km lengths together

1 light rail line with a length of 8.7 km.

An extension of another 24 km is under preparation

165 city bus routes with more than **1000 vehicles**

Light Rail Transit (LRT), the new tram line has been extended to Hamasen, with the two last stations opened in late September. This tram line is the first in the world with catenary-free trams for the entire line of more than 8 km. Instead, the trams charge their special batteries within 20 seconds at each of the 14 stops. Until the end of December, the tram line is free and thousands of residents and tourists use it during the week and many more over the weekends.

Hamasen goes ecomobile: exploring the neighborhood

Preparing for a local experiment



Figure 3 A street in the Festival area

The historic neighborhood of Hamasen is characterized by two- to four-story buildings, an area with high density and narrow streets. Each building usually hosts a shop or workshop on the ground floor. The area suffers from air pollution which mainly comes from the motorcycles, cars and ferries emissions.

This month-long ecomobility experiment in Hamasen, organized by the city and led by the Transportation Bureau, shall tackle these challenges, as well as physical refurbishment of the entire area. In preparation for the Festival, the city has invested heavily in the Hamasen area infrastructure. As did various residents

and business people making improvements such as: new shops, new restaurants, renovated houses as well as a few green areas in front of their house to invite residents to enjoy a walk.

However, living by the principles of ecomobility is a stark change from business as usual and behavioral change does not happen overnight.

For the past two years, the city has been working with residents and community leaders to prepare for the Festival and ease this transition into ecomobility. The Transportation Bureau and the Civil Bureau, two of the twenty-two city bureaus involved in planning the Festival, worked closely with local leaders to facilitate dialogue with the residents, listen to their hopes and concerns, build trust and encourage them to embrace the Festival.



Figure 4 The Siziwan Metro Station, the final destination of the orange line, ends in Hamasen

Size of the Hamasen demonstration area:

0.14 km²

Number of inhabitants in the Hamasen demonstration area: **approx. 3,000**

Cars registered in the Hamasen demonstration area: **approx. 0.9 car per household.**

Number of scooter registered in the Hamasen demonstration area: **approx. 3,000 or 2.1 scooters per household**

Leading towards the 2017 Festival, Kaohsiung city has invested enormously in infrastructure improvements in this neighborhood with physical improvements. The roads were renovated, placing electric cables and modern internet cables underground as well as building a new sewage system.

In Hamasen, the efforts of the city's investment in the Festival helped local residents to feel valued and engaged.

All streets and alleys in the neighborhood have been newly asphalted or paved in the last weeks. Thus, Hamasen's streets look extremely new and clean, with pockets of green in between.

Some parks have been created in abandoned areas and buildings have been renovated. In some streets, sidewalks have been clearly marked as pedestrian

space. In most streets, however, cars, scooters, cyclists, wheel chair users and pedestrians are supposed to share the narrow space.

Recently international participants discussed these streets: Do they represent a model for modern “complete streets” and mixed use of road space or are they still a dangerous challenge for vulnerable residents, such as children, handicapped people, and elderly people?

In the months leading up to the Festival, the city organized several open air markets that shut down a main street to motorized traffic, giving residents a taste of what ecomobility could mean for their neighborhood and community. Their markets were very successful and will continue to be held during and after the Festival.



Opportunities and offers to Hamasen inhabitants

The aim of the Festival is that neighborhood life continues to thrive as usual, just in a healthier, more sustainable and ecomobile way. The city worked with residents and those who travel into Hamasen for work or other reasons to

understand how they move about the neighborhood each day and planned for alternative ecomobile solutions.

Residents have been provided a free iPass for over a month, giving them access to a wide range of public transport options including the MRT, LRT, buses and ferries. Residents can also borrow different types of bikes. A car-sharing and a scooter-sharing station have also been established for the residents to acquaint them with the idea of sharing rather than personal ownership of vehicles. The city has provided free parking spaces all around the Festival area, in close walking distance, in order to empty the streets for other modes of transportation.

As air and noise pollution resulting from scooters represent one of the key problems in Hamasen, all owners of two-stroke and more than 10 year old four-stroke scooters have been offered a subsidy (approx... $\frac{3}{4}$ of the purchase costs) to exchange these old vehicles with modern electric scooters. Several hundred inhabitants of Hamasen have already used this generous opportunity.



Figure 5 A newly developed park in Hamasen



Figure 6 The Transportation Bureau office in the middle of Hamasen

The Hamasen Recollection Exhibition, a joint effort of the city and many local organizations, explains the history of this traditional neighborhood at various places throughout streets and buildings. Another contribution to attract visitors, bring life on the streets and strengthen local identity.

A local experiment: what happened in the first week?

During the first week of the Festival, almost all of the approximately 700 to 800 registered cars in the neighborhood were removed. Though it was not obligatory,

Facts of week one

Increased use of iPass by residents
60,000 trips/ day into and from the Festival neighborhood (including all modes of transport)

Number of Festival events: 50

residents were strongly encouraged to use the nearby 14 parking lots provided outside the area that are guarded day and night. They responded well to that request - very few cars remained in the Festival area in week one, creating more space for pedestrians and cyclists in the street.

A major street that runs from the ferry boat station to the outside edge of Hamasen is closed to motorized traffic. Instead, the street is full of recently opened restaurants and shops, all enjoying enormous interest and business from the now walking visitors.

While air quality has increased noticeably even just in the first days, residents are still allowed to drive scooters in and around the Hamasen area. The relatively high density of scooter traffic means that the full benefits of ecomobility including measurable air quality improvements and noise reduction, are not on full display.

Many voices from local residents, however, indicate their expectation that the Festival may allow them better air quality. Some said that they are enjoying a much better sleep in this first Festival week with hardly any cars and less scooter traffic.



Figure 7 One of the electric bike taxis provided to residents in Hamasen

Free bikes of different sizes and types are available for Hamasen residents and visitors to use. While this might still be unusual for people, the many existing bike and scooter rental shops around the Hamasen area are enjoying increased business. It is a tradition in this part of Kaohsiung to arrive by Metro and to rent such a vehicle for a day.

Free *electric bike taxis* drive throughout the neighborhood, enabling residents and visitors to enjoy a ride, be it to a shop or to their cars parked outside the area. Public buses including some e-buses are accessible along the borders of the Festival area. All of this public transit is available free of charge for the residents during the Festival.



Figure 8 A street in the Festival area at night



Figure 9 An open-air traditional puppet show in the Festival area

Throughout October, the neighborhood will see over 150 events from concerts to theater plays and traditional puppet shows. These events will bring visitors to the neighborhood, increasing local business and raising awareness about ecomobility. Countless visitor groups from abroad and from nearby cities are guided through Hamasen in smaller groups including school children of all ages.

For over a week now, the residents living in the Festival area have been experiencing ecomobility in their streets. Behavioral change is hard, but through this experiment Kaohsiung is showing residents the benefits ecomobility can bring to their daily lives.

The statue of the Festival mascot, a smiling cartoon character with a seed on his head can be seen in front of the Transportation Bureau office in Hamasen. The seed symbolizes that ecomobility has been planted here and should spread throughout the world. Indeed, the seed of ecomobility has been planted in Kaohsiung and the city will continue to improve transportation, prioritizing walking, biking and public transport over other forms of transportation.

Many outside visitors have also come to visit the Festival and have seen the beginnings of ecomobility on the ground in Hamasen. Those visitors, inspired by the success of the Festival in Kaohsiung are bringing ideas and solutions home to their own communities around the world.



Figure 10 The Festival mascot in front of the Transportation Bureau

And, after Week one?

All those who spend time in Hamasen and observe how people enjoy themselves have some main questions in mind: What will happen in the upcoming days? Will awareness raising and offering new life style opportunities convince the inhabitants? Or will cars and scooters “come back” quickly, despite the generous alternatives provided by the city government?

Which instruments can a local government install to let a majority of residents enjoy such ecomobile weeks, if a few insist on their traditional behavior to park their big cars on the streets, to occupy curb space and to rush through narrow streets with their stinky scooter at all time?

Will the time be long enough to let shop owners experience that walking customers in pedestrian zones stop by much easier to get a snack, ice cream or to purchase some gifts? Would we ever hear how much additional money the shop owners earned, even those who indicated disagreement some months ago?

Voices from the neighborhood

Prof. Woo runs an association for the conservation of birds. He has converted his garage into a sitting room to welcome visitors throughout the Festival and is eager to share the story of his neighborhood. He has lived in the neighborhood all his life, almost 75 years and has seen the neighborhood transform entirely. Mr Woo is thrilled to be able to enjoy the view of a blue sky, cleared from the electric cables in front of his house since the renovations have been made in his streets.

To move around the city, he follows a simple rule that he heard many years ago at a conference: if you have to do a 10 minute trip, you walk, for a 30 minute trip, you bike, for longer trips, you use public transport. He is deeply convinced ecomobility is the way to go for cities but knows the transition will take time. He hopes the Festival will help residents understand better the advantages of ecomobility and accelerate change.

A volunteer: There is a large community center in Hamasen where residents can gather for tea and various workshops and activities are offered. One of the volunteers shared that she thinks the Festival is a good idea. She lives in the city center and usually comes by car or by bike to the Hamasen neighborhood. She says it is better to bike as it is better for her health but even when she brings her car it is easy to park outside of the festival area and walk to the center.

She thinks the Festival is good for health overall - it is good to bicycle and the air is cleaner too. She knows not all of the residents thought the Festival was a good idea but she thinks in the end it will be good. She believes it takes time for people to change their habits. She also shared that she would like to see these types of experiments happening in other parts of Kaohsiung as well.



Figure 11 Prof. Woo welcoming visitors in front of his house



Figure 12 View of a community center in Hamasen



Figure 13 Two students on their way to dinner in Hamasen



Figure 14 A shop owner in front of his newly renovated café

Two young students who live and study outside of Hamasen enjoy coming to the neighborhood for dinner. As most students, they usually move around with their scooter and were intrigued by this event that prevented them from entering Hamasen with their vehicle. Although they found it inconvenient not to be able to use their scooter in the area at first, they appreciated the freedom to walk on the

car-free streets without the mask they usually wear to protect themselves from the pollution.

The **owner of a small cafe** who lives right on top of his shop with his wife and a one-year old baby did not have to change his habits so much as he and his wife usually move around the neighborhood by bike. A lot of his customers are tourists who usually come by public transport and then walk through Hamasen. He appreciates the calm in the street and cleaner air since the start of the Festival.

Week one highlights

Opening Ceremony on 1 October 2017

The opening ceremony began with a celebratory parade through the streets of Hamasen, the historic neighborhood that plays host to the Festival. Hamasen is undertaking a month long experiment in ecomobility by prioritizing sustainable, carbon free transport such as walking, cycling and electric vehicles. Through the Festival, the Kaohsiung city is taking a bold step towards transforming their transportation culture.

During the opening ceremony, Mayor Chen Chu of Kaohsiung celebrated the transformation of the Hamasen neighborhood which took place over the last two years in order to prepare for the Festival. Gino Van Begin, Secretary General of ICLEI – Local Governments for Sustainability, acknowledged the leadership shown by Mayor Chen and her commitment to sustainable transport. He also highlighted the important example set by Kaohsiung for other cities around the world.



Figure 15 The Opening Ceremony parade



Figure 16 Special characters at the Opening Ceremony parade



Figure 17 Mayor Chen's character visiting the Opening Ceremony



Figure 18 Fun and people on streets during the Opening Ceremony

EcoMobility World Congress, 2-4 October 2017

The EcoMobility World Congress 2017 brought together representatives from over 50 cities alongside technical experts, business leaders and representatives from research institutions and international organizations. By bringing together these key figures from around the globe, the Congress is a key platform for city-to-city exchange and substantive collaboration. The three Congress themes – Livable, Shared and Intelligent, were at the heart of discussions on emerging challenges and opportunities for sustainable urban mobility.



Figure 19 Participants at the Opening Plenary of the Congress

Key congress figures:

- 3 days
- 1200 registered participants
- 20 Mayors
- More than 50 cities represented
- Over 90 speakers
- 22 sessions

Thematic highlights

Towards car-lite multi-modal urban mobility (keynote)

Dr. Limin Hee, Director of Research, Center for Livable Cities (CLC), Singapore

Over the past 50 years, Singapore has seen a full transformation from a highly congested car dependent city to a metropolis known for its livability, thanks to careful urban planning and regulation. Dr. Limin Hee outlined the history of the city, the steps it has taken such as discouraging car use through road pricing and incentivizing public transit, and the plans they are developing to further reduce car ownership and use in Singapore.

Urban mobility: A centerpiece in building livable cities (Mayors' Panel)

Mayor Chen Chu from **Kaohsiung**, **Mayor van Zanen** of **Utrecht**, **Park Jae Min**, Deputy Mayor for Administrative Affairs in **Busan**, **Tano Harumitsu**, Vice Mayor of **Kumamoto** and **Teo Ho Pin**, Mayor of the Northwest District of **Singapore** each highlighted the unique characteristics and makeup of the cities they lead. Each of these local leaders shared some of their successes and challenges. They also insisted on how they see a sustainable transport system is a prerequisite for livability and how important international exchange is for city leaders to learn good practices.

People, Pedals, Parks & Cleaner fuel for cleaner transport. (Kaohsiung Talks)

Messages and encouragement from various KED session speakers perspectives included: How can we return the city and spaces back to the people? And how can we reduce transport induced CO2 emissions substantially?

Robert Stussi, CEO of Perform Energia Consulting in Lisbon, Portugal: We need a paradigm shift. And, let's bring "fun" into the center of communication with residents.

Manfred Neun, Director of the European Cycling Federation in Germany presented: Let's encourage active mobility over passive mobility.

Bronwen Thornton, Development Director of Walk 21 in the United Kingdom: We need to change our narrative on walking.

Robin Berg, Founder LomboXnet, Utrecht, Netherlands: E-mobility has a future.

Konrad Otto-Zimmermann, Creative Director, The Urban Idea, Freiburg, Germany: Cars in cities: size & speed matter. Downsize vehicles to human size; Decelerate to urban speed; Decrease in numbers.



Figure 20 Manfred Neun speaking at the Congress

Horace Luke, CEO, Gogoro Inc, Taipei: Modern systems for swapping batteries easily open new markets for e-mobility.

A different approach to health and mobility (keynote)

Jan van Zanen, Mayor, Utrecht, Netherlands

Utrecht has successfully promoted walking and biking for many years. And the impacts are visible. Utrecht, an economically vibrant city, enjoys one of the highest share of bike riders in the world, commuters on bikes are fast to reach their work spaces, cyclist are guided through the city with priority lanes and signage, and the growing bike congestion has encouraged the local government to build the world largest bike storing facility in the inner city.

The future of mobility is shared (keynote)

Robin Chase, Founder, ZipCar, Veniam

Climate change is happening, and global greenhouse emissions are not slowing down quickly enough to curb it.

Transportation being responsible for 23 % of GHG emissions globally, it is clear that we must be proactive in transforming urban mobility. To achieve this, new transportation models must be zero emissions and they absolutely must be shared.

Automated vehicles being pushed into our cities pose high risks and opportunities at the same time. Robin called upon all cities around the world to get involved in defining requirements and conditions for such automated vehicles. See more key arguments from Robin Chase's keynote address.



Figure 21 Robin Chase during the Closing Plenary of the Congress

Climate change mitigation (keynote)

Bruce Cheng, Founder Delta Group, Taipei Delta, one of the world leading companies in electronics and green buildings offers to contribute its technologies for energy saving, greening buildings and reducing energy demand and thus emissions in mobility.

Mayors' EcoMobility Ride

The EcoMobility World Congress 2017 Mayors' Ride was a parade of local leaders from around the world demonstrating their commitment to ecomobility. A group of over 200 mayors, local leaders and congress participants rode a variety of ecomobile vehicles from the Congress venue through the streets of Hamasen and into the heart of the Festival area.



Figure 22 Mayors ride through the historic Hamasen neighborhood of Kaohsiung to show their support for ecomobility

The Mayors' Ride concluded at Dai Tien Temple where the group was greeted with traditional refreshments and cultural performances. Through the Mayors' Ride, leaders from around the world were able to mingle with Hamasen residents and experience the EcoMobility World Festival firsthand.



Figure 23 Participants of the Mayors' Ride



Figure 24 Participants of the Mayors' Ride



Figure 25 Mayor Chen Chu during the Mayors' ride



Figure 26 Cultural performance in front of the temple in Hamasen

The Kaohsiung Strategies and Shared Mobility Principles

The [Kaohsiung Strategies for the Future of Urban Mobility](#) were adopted on 4 October at the closing plenary of the EcoMobility World Congress 2017 in Kaohsiung.



Figure 27 Mayor Chen Chu of Kaohsiung and Monika Zimmermann, Deputy Secretary General of ICLEI, with representatives from many local governments present at the Congress, celebrating the adoption of the Kaohsiung Strategies

Our cities are experiencing unprecedented changes in transportation that are driven by social, economic and technical trends. The Kaohsiung Strategies provide a guide for city leaders to shape the future of urban transport in their communities, and ensure safe, clean, affordable, accessible, environmentally-friendly, intelligent and connected mobility options and transport systems for their residents.

The Kaohsiung Strategies strengthen ecomobile solutions such as walking, cycling, public transport, shared mobility and their interconnectivity as the backbone of urban mobility in the future. The Kaohsiung Strategies take up emerging trends and technologies and encourage city leaders to review these critically when designing and implementing mobility policies. They also provide a guide for cities to link their transport planning to the Sustainable Development Goals (SDGs) as they aim to build livable, shared and intelligent cities.

The Kaohsiung Strategies are based on the [Shared Mobility Principles for Livable Cities](#), a set of 10 key principles produced through a collaboration of international NGOs and ZipCar co-founder Robin Chase and designed to lead urban decision makers towards more livable, sustainable mobility systems. These Shared Mobility Principles were officially launched in Kaohsiung during the EcoMobility World Congress.

Some voices from the Congress



"We need to work harder to change people's mindsets and behaviors."

Khuat Viet Hung,
Director General of Transport Department,
Ministry of Transport of Vietnam



*"Let me tell you a secret,
I have more bikes than citizens."*

Jan Van Zanen,
Mayor of Utrecht, The Netherlands



"The most important thing is creating political will to implement all of the ideas we are having."

Tim Schubert,
Senior Expert Mobility from the German Environment Agency



"I'm going to go home and make sure that the future is electric and shared."

Suzanne Jones,
Mayor of Boulder, USA

Congress outlook

ICLEI's Deputy Secretary General, Monika Zimmermann, encouraged cities to indicate their interest in hosting a next EcoMobility Festival or Congress. She also invited cities to host a special event to discuss the issue of scooters in Asian cities as this topic appears to be common threat and challenge for many cities, as discussions throughout the congress indicate.

The congress ended with a promise of many international visitors to Kaohsiung city that they will continue to observe and report about out the Festival and developments in Hamasen.

Alliance Chair Extension Ceremony

For the last two years, Kaohsiung city has been the Chair of the EcoMobility Alliance, a network of advanced cities supported by ICLEI that is working to implement ecomobile solutions and lead the way towards sustainable urban transport systems. As an Alliance Chair, the city supports the exchange of expertise among ambitious entities in the field of EcoMobility. Kaohsiung has just announced that it will continue leading the Alliance for one more year.



Figure 28 Mayor Chen Chu of Kaohsiung and Gino Van Begin, Secretary General of ICLEI - Local Governments for Sustainability, with other city representatives during the Alliance Chair Extension Ceremony

Exhibitions

In parallel to the Festival and Congress, indoor, outdoor and online exhibitions have been organized for participants to learn more about ecomobility.

More than 40 exhibitors are sharing their latest products, from electric vehicles to devices for public transport. A special exhibition on green living was showcased by the Delta company. Various vehicles, including autonomous shuttles, attracted throngs of visitors to test-ride.

EcoMobility Expo Online (www.ecomobility-expo.net)

The third edition of the EcoMobility Expo Online was launched on 1 October 2017, both in Chinese and English. Together with



the local exhibition, the Expo Online showcases the variety of ecomobile vehicles options to the residents of Hamasen, the residents of Kaohsiung as well as visitors from all over the world. The different types of vehicles have been grouped according to nine themes. The EcoMobility Expo online will remain accessible even after the Festival.

www.ecomobility-expo.net

Stay tuned

These highlights are just a snapshot of the discussions and festivities that took place throughout the first week of the Festival. The neighborhood of Hamasen will continue this bold experiment in ecomobility through the end of October 2017. Stay tuned for further information and analysis.

The Festival website offers pictures, blogs and press releases, and the congress website will soon make the speakers' slides available.

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www.ecomobilityfestival.org

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