

**BIKELAB ISTANBUL
CYCLING and PUBLIC
TRANSPORTWORKSHOP**

FINAL REPORT - January 2013

Workshop Date: 18 December 2012

info@embarqturkiye.org



&



With the Sponsorship and Cooperation of the Royal Netherlands Consulate General

Contents

1	Introduction	3
2.	The Program in Detail	5
3	Presentations	7
3.1	About BikeLab	7
3.2	The Moderator's Speech.....	7
3.3	Presentations	7
4	Workshop Section	9
4.1	Workshop Structure.....	9
4.2	Question One: The Results.....	9
4.3	Question Two: The Results.....	11
4.4	Question Three: The Results	12
4.5	The Participants' Personal Thoughts	13
4.6	Other comments and Contributions	18
5	Next Steps.....	19
5.1	How will we proceed?	19
6	Event Photographs.....	20
7	List of Participants	25
	APPENDIX-1	26
	The Workshop Presentations	26
	APPENDIX-2	27
	The Workshop Round Table Questions	27
	APPENDIX 3.....	30
	Additional Information and Supporting International Documents	30
	Road Safety and Bicycle Planning	31

1 Introduction

EMBARQ Türkiye - The Sustainable Transport Association is an entity that undertakes projects and produces sustainable solutions for urban transport problems in order to improve cities' quality of life. Working with local authorities, our association develops solutions to improve the existing quality of urban transportation, providing support of both domestic and international experts during the recommendations implementation stage. Among the projects that we have conducted are a number of studies dealing with the integration of bicycles with urban transport networks. Our projects in Antalya, Eskişehir and Sakarya to include bicycles in the cities' transport plans and to design safe bicycle paths are still on-going.

We now aim to begin undertaking studies contributing to the integration of the bicycle with Istanbul's transport network. One of the first of these steps will be the "Bikelab Istanbul" project. We will work on this with the Dutch company YARD 9, which with its "user-focused designs", is one of the sector's leading companies. The project is supported by the Royal Netherlands Consulate General as part of the celebrations marking the 400th anniversary of diplomatic relations between Holland and TürkiyeTürkiye.

The first activity of this one-year-long project was to meet with our stakeholders to discuss and develop solution, proposals for safely and effectively integrating the bicycle to the city's urban transport network. Our intention was to bring together the local and central government agencies, the transport industry's leading institutions, development agencies and a number of civil society organizations. During this Workshop, our aim was to work together with our stakeholders to obtain answers to questions such as 'how to make biking safer?', 'how to integrate the bicycle into public transport?', and 'how to develop a bicycle culture in Istanbul?'.

We will share the Workshop Report containing answers noted during the workshop by the relevant institutions and directly with the public. We also hope that, with this report, we will contribute to the work of promoting the use of the bicycle as a means of public transportation.

First, a laboratory study was conducted, following which presentations were shared and, finally, sessions of round-table workshop discussions. A detailed program is presented in Part Two. The laboratory study's main objectives were:

-
- Ensuring that all of the problems were shared with and understood by every one, with some possible solutions being presented. This was important as it will be very difficult to come to an agreement unless all parties share a common understanding of the problems and a common vision of the project's objectives.
 - Bringing together local government with bicycle users, helping them understand each other's point of view;
 - Answering questions about priorities and the next steps to be taken:
 - How can we improve Istanbul's bicycle culture?
 - What can we do to make biking safer?
 - How can the use of the bicycle be integrated with Istanbul's public transport?
 - Supporting decision makers at the design stage.

In accordance with the program, the event started with an opening speech by the Royal Netherlands Consul General in Istanbul, Mr. Onno Kervers. In his speech, the Consul expressed this 400th anniversary of diplomatic relations between Holland and Türkiye, focusing on the importance of the two countries' long-term relationships and opportunities for cooperation. He stated that as part of this vision, he was very happy to sponsor the BikeLab event.

The Consul's speech was followed by that of the Embarq Türkiye's Director Türkiye, Miss Arzu Tekir. In her speech, Miss Tekir talked about Embarq Türkiye's activities. She also noted that this event was important as it would be a vital step towards preparing the "Bike Paths Implementation Design Manual" document that is scheduled to be completed by the end of 2013.

Next, the Administrative Partner of YARD 9, Mr. Gerbrand Wiepko Bas, introduced his company. Mr. Bas talked about how eager and happy they were to share their opinions and to provide the technical support required for the steps that need to be taken to move into the future.

2. Detailed Workshop Program

EMBARQ TURKIYETURKIYE - SUSTAINABLE TRANSPORTATION ASSOCIATION		
BIKELAB ISTANBUL		
Date: 18.12.2012	Time: 13:00 – 17:00	Place: Salt GALATA
Time:	Topic	Speakers
13:00 – 13:30	Record	
13:30 – 13:45	Opening Speeches	<p><i>Presentation</i></p> <p><i>The Royal Netherlands Consul-General of Istanbul</i></p> <p><i>Onno Kervers</i></p> <p><i>The Director of EMBARQ - Arzu Tekir</i></p> <p><i>The Administrative Partner of Yard 9 - Gerbrand Wiepko Bas</i></p>
13:45 – 15:00	Panel Presentations	<p><u>Moderator:</u> <i>Sibel Bülay</i></p> <ul style="list-style-type: none"> - EMBARQ Türkiye - Ali Doğan Şalva; Bike paths and road safety features - Yard 9 – Gerbrand Wiepko Bas; Yard 9's Presentation and Best Practices - Dutch Cycling Embassy – Anton Lambertus Bosch; Better Cities: Accessibility, liveability - President of the Association of Cyclists - Murat Suyabatmaz; Life with Bicycle in Istanbul - The Secretary General of the Life with Bike Association - Kevser Seri; The meaning of the bike in Türkiye: problems and recommendations
15:00 – 15:15	Coffee Break	
15:15 – 16:15	Workshop	<p><u>Moderator:</u> EMBARQ Türkiye - Serdar Öncel</p> <p>The participants will be divided into groups and look for answers to each of the questions listed below</p> <ul style="list-style-type: none"> - What can we do to make biking safer? - How can we integrate the bicycle with public transport? - How can we improve Istanbul's bicycle culture?

16:15 – 16:30	Coffee Break	
16:30 – 17:00	Evaluations Closing	EMBARQ Türkiye and Yard 9

3 Presentations

3.1 About BikeLab

The Royal Netherlands Consul-General Onno Kervers noted in his opening speech that they were always ready to help in promoting use of bicycles as a mean of transportation in Istanbul, transforming Istanbul into a city where people can bike to work, as they can in the Netherlands. In talking about this project launched with the collaboration of EMBARQ Türkiye and YARD 9, Mr. Kervers, being a former bike user, explained that this project presented the bicycle as an important solution alternative for Istanbul's traffic problem.

The Director of EMBARQ Türkiye Miss Arzu Tekir explained the project's objectives and briefed about other components which will form part of the main initiative over the next months. "As part of the BikeLab Initiative, we are committed cooperating with stakeholders and we are open to anyone who want to contribute and lend support. At the end of this workshop, we will prepare a report, which will be shared with experts from the Istanbul Metropolitan Municipality, district municipalities and decision-makers in general. Over the upcoming months, with the support of YARD 9, we will design safe bike lanes for the cities. We aim to implement a pilot project of bike lanes in a selected area, following the data collection through the regional administrators and the necessary data analyses. At the end of this one-year long initiative, we plan to prepare a "Safe Bicycle Path Design Manual" document to promote safe life with bike throughout Istanbul", she said.

3.2 The Moderator's Speech

Mrs. Sibel Bulay opened the workshop with a short speech. She shared her views on the importance of including the bicycle as a mean of transportation in local administrations' core planning initiatives. As a representative of the Sustainable Transportation Association, she expressed their willingness to support improvement in bike lane infrastructures, as initiated by the Istanbul Metropolitan Municipality.

3.3 Presentations

After the opening speeches, five presentations were shared. The presentations' topics are listed below:

- EMBARQ Türkiye - Ali Doğan Şalva; Bike paths and road safety features
- Yard 9 – Gerbrand Wiepko Bas; Yard 9's Presentation and Best Practices

- Dutch Cycling Embassy – Anton Lambertus Bosch; Better Cities: Accessibility, liveability
President of the Association of Cyclists - Murat Suyabatmaz; Life with Bicycle in Istanbul
- The Secretary General of the Life with Bike Association - Kevser Seri; The meaning of the
bike in Turkiye: problems and recommendations

You can find all presentations, in detail, in Appendix 1.

4 Workshop Section

4.1 Workshop Structure

The second part of the workshop was organized as a series of roundtable discussions. Here, participants were divided into three groups, where they discussed to have answers for the workshop's three main questions. Each table had one moderator and one register, so all different opinions and comments were recorded. At each table, only a single topic was discussed, with a pre-prepared list of potential steps was distributed to each of the participants (detailed list of steps is given in APPENDIX 2). Each participant prioritized the steps on the list, with the addition of their own views.

The participants had twenty minutes to express their opinions on each question. At the end of given time, the moderator and register at each table moved to another one, where they assisted the discussions and recorded opinions on the same questions.

The recording process of the opinions took one hour following which a 20 minute summary was presented.

The answers given in response to all of the questions asked are listed below:

4.2 Question One: The Results

The first question was: "How should Istanbul's bike culture be improved?" For this question, the previously determined possible steps were as follows:

- Municipalities could implement bike rental areas (1)
- Fare discounts could be granted to bike users (2)
- In certain parts of the city, bicycle-oriented entertainment / sporting events could be organized (3)
- On special occasions, bike "awareness" events could be organized (4)
- In neighborhoods, special trial days can be agreed on, and on these days school-home trips by bike would be encouraged(5)
- Encouragement can be made through the use roadside billboards, posters and "public spots" on television (6)
- Personal thoughts

Given the participants' prioritizations, the following results were obtained:

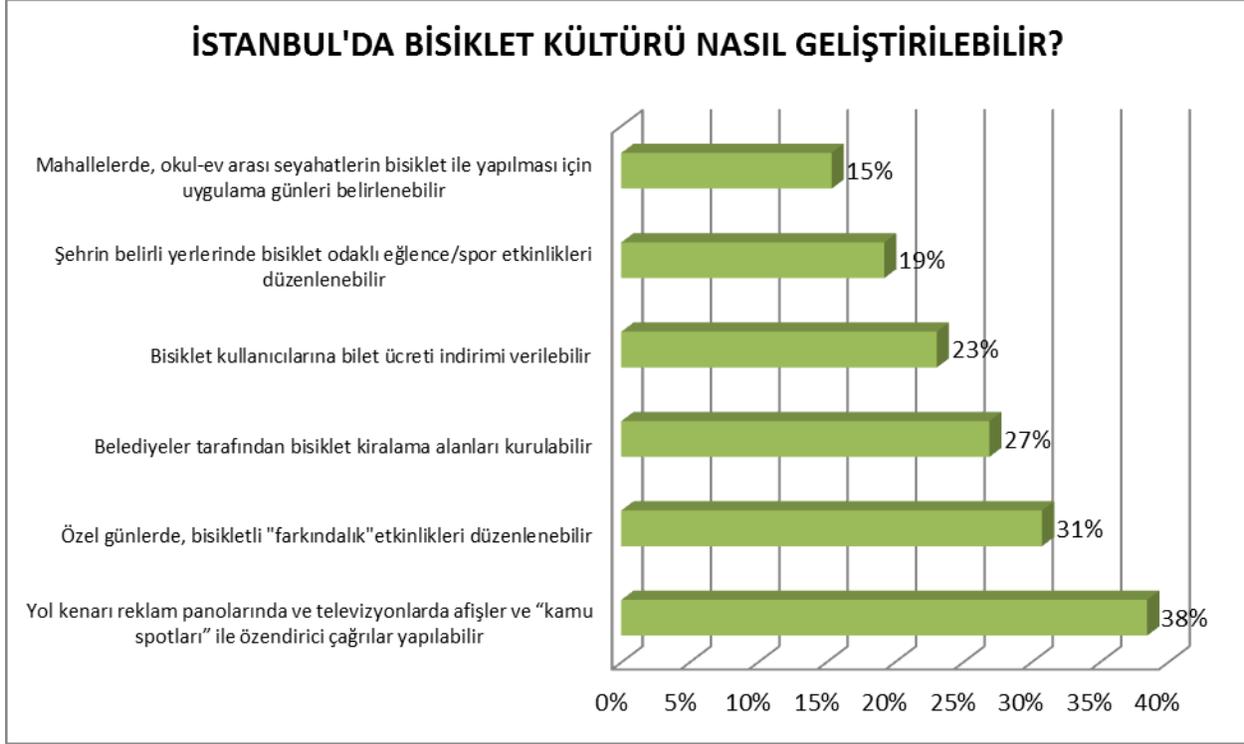


Figure 1 - The Proposals' Priorities (First Question)

As you can see in Figure 1, the proposal prioritization process as described determined that the option "Encouragement can be made through the use of roadside billboards, posters and "public spots" on television" was the most preferable idea, with 38% support. Others followed:

- 31%: "On special occasions, bike "awareness" events could be organized"
- 27%: "Municipalities could establish bike rental areas"
- 23%: "Fare discounts could be presented to bike users"
- 19%: "In certain parts of the city, bicycle-oriented entertainment / sporting events could be organized" and
- 15%: "In neighborhoods, special trial days can be agreed on, and on these days school-home trips by bike would be encouraged".

4.3 Question Two: The Results

The second question was "What can we do to make bicycle transport safer?". For this question, the previously determined possible steps were as follows:

- Safe cycling routes with easy access can be allocated to different levels of bicycle user (inexperienced, professional, disabled) (1)
- Bike lanes can be designed for multi-purpose use (business, entertainment, sports) (2)
- Designs that ensure bikers' safety can be included in the regulations governing intersections(3)
- The introduction of the clearly visible signs, especially targeting car drivers, could be prioritized (4)
- NGOs could organize "safe cycling in traffic" training programs under the leadership of local administrations (5)
- Personal thoughts

Given the participants' prioritizations, the following results were obtained:

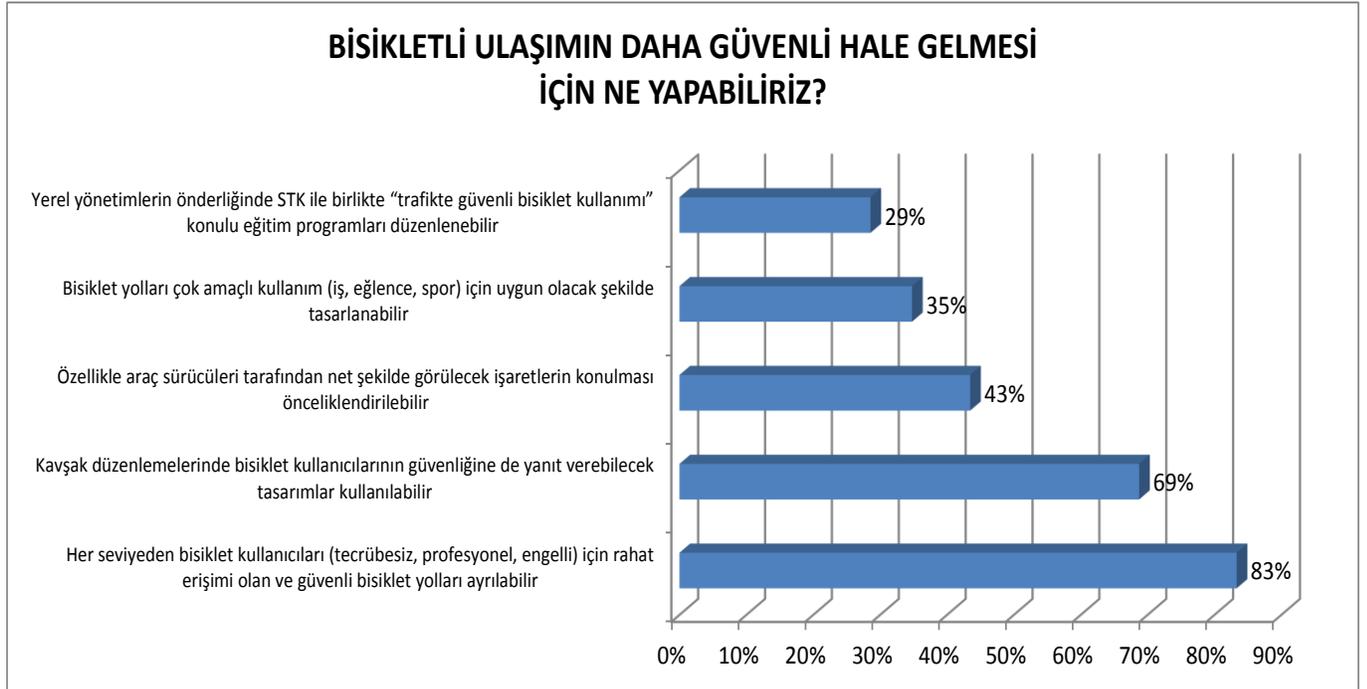


Figure 2 - The Proposals' Priorities (Second Question)

As you can see Figure 2, the proposal prioritization process as described determined that the option "Safe cycling routes with easy access can be allocated to different levels of bicycle user (inexperienced, professional, disabled)" was the most preferable idea, with 83%. Others followed:

- 67%: "Designs that ensure bikers' safety can be included in the regulations governing intersections"
- 44%: "The introduction of the clearly visible signs, especially targeting car drivers, could be prioritized"
- 35%: "Bike lanes can be designed for multi-purpose use (business, entertainment, sports)", and
- 29%: "NGOs could organize "safe cycling in traffic" training programs under the leadership of local administrations"

4.4 Question Three: The Results

The third question was "How can the use of the bicycle be integrated with Istanbul's public transport?" For this question, the previously determined possible steps were as follows:

- When updating the city's master plan, NGOs should be consulted
- Support can be provided for a complementary bicycle path network that does not use the same corridor as car traffic (2)
- The priority routes can be determined by surveying bicycle users (3)
- A space for bicycles can be allocated in public transport vehicles (either inside or outside the vehicles) (4)
- Public transport users with bikes can be offered additional discounts; the concept of "Park-and-Ride" can be extended to bicycles (5)
- Secure bicycle parking spaces can be allocated at transfer points(6)
- Personal thoughts

Given the participants' prioritizations, the following results were obtained:

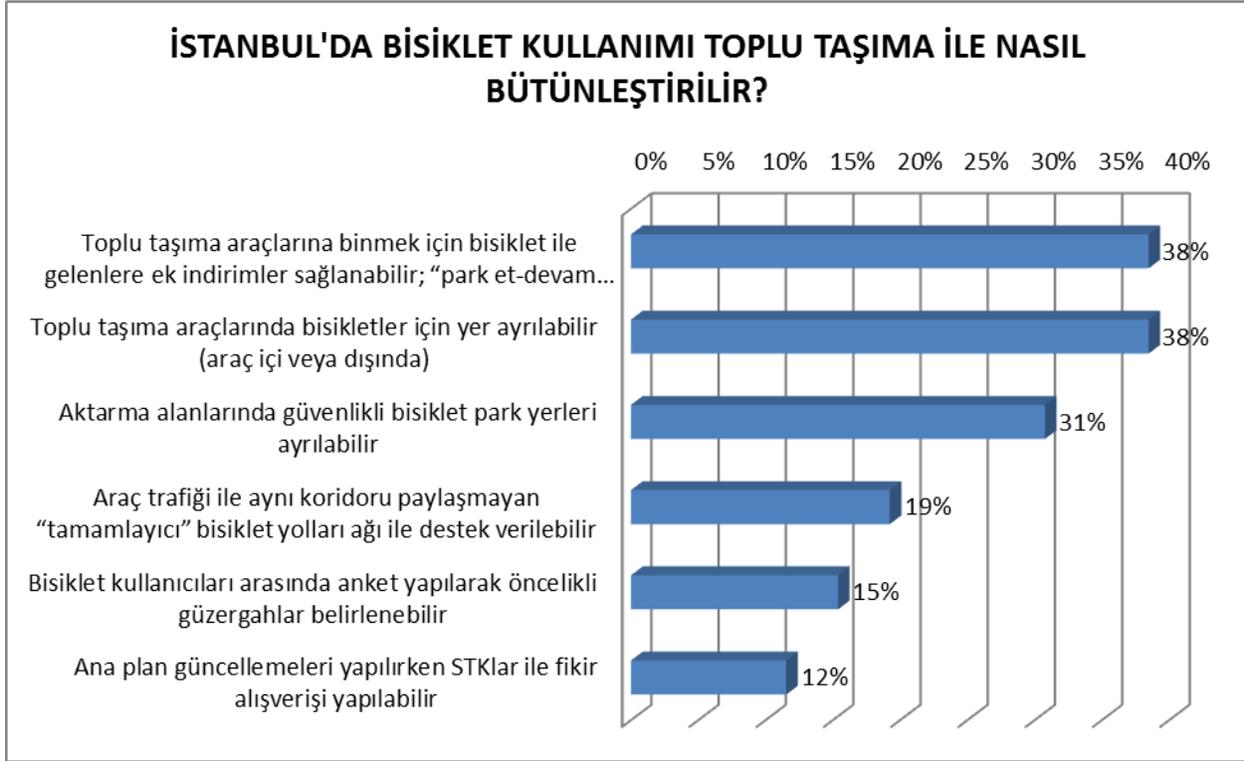


Figure 3 - The Proposals' Priorities (Third Question)

As you can see Figure 3, the proposal prioritization process as described determined that the options "Public transport users with bikes can be offered additional discounts; the concept of "Park-and-Ride" can be extended to bicycles" and "A space for bicycles can be allocated in public transport vehicles (either inside or outside the vehicles)" were the most preferable ideas, with 38% support. Others followed:

- 31%: "Secure bicycle parking spaces can be allocated at transfer points"
- 19%: "Support can be provided for a complementary bicycle path network that does not use the same corridor as car traffic"
- 15 %: "Priority routes can be determined by surveying bicycle users " and
- 12%: "When updating the city's master plan, NGOs should be consulted".

4.5 The Participants' Personal Thoughts

As part of this study, in addition to the previously prepared list of possible steps, all participants were also asked about their personal thoughts.

Below, you will find a detailed list of the ideas discussed in this section.

The recommendations falling in the scope of the first question are summarized under the three main headings, as follows:

- The Bicycle Parking Areas' Infrastructure
 - The establishment of bicycle parking spaces at public transport network transfer points (For example: metro exits, next to the metrobus stops, etc.),
 - Providing easy and safe transfer from bicycle parking areas to the public transport network's main stops (For example: Between trams, metrobus stops, ferry ports and metro / metrobus stops),
 - Completely enclosed bicycle parking areas must be built.
- Incentive and Reward Practices
 - In the UK, bicycle commuters get state aid. Encouraging the development of such applications in Türkiye, too
 - Giving financial assistance or rewards to university students who commute by bicycle (dining hall tickets, gift certificates, etc.)
 - Companies providing services in support of their bike commuters (showers, changing rooms etc.)
 - Companies developing rewards for those employees who commute to work by bicycle
- Encouraging Examples of Bike Life Campaigns and Examples of Public Ads
 - Valuing the bike as a means of transport, and providing educational and informative campaigns for all kinds of drivers (private, taxi, dolmuş and bus) to make them aware of bicycle commuters in traffic,
 - Organizing campaigns that show that the bike is not a standalone culture but is part in overall traffic culture; creating an awareness that bike lanes are not just for fun but are part of the city's transportation infrastructure,
 - Organizing activities that present interesting stories of bike users as role models and as people who have changed their lives by biking,
 - Designing different campaigns targeting different groups, making separate approaches based on different personal profiles,

- Emphasizing different features of bike use such as sports and health, recreation and socialization, environmental contribution, tourism; using public spots to encourage different people / sector profiles,
- Designing public spots, posters and brochures that call on Turkish drivers "to have mercy" (for example: preparing films, posters, brochures that show the bike drivers' problems: pitted roads, splashing cars, drivers opening car doors without noticing bikers),
- With the cooperation of Trade Associations, starting bicycle design competitions to raise awareness of bike use as a means of transport,

- Organizing collective and widely noticed activities that draw attention to these topic, such as cyclists action on Bagdat Street,
- Establishing pilot projects to create bike-life friendly areas in the city (for example: organizing campaigns in Bahçeşehir and Ataşehir like "bike-to-school", "bike-to-work", "bike-to-shop"; extending the best practices),



Photo 1 - Shared Lane for Buses and Bicycles (Sweden)

- Starting "bike life" activities on university campuses throughout Istanbul; commuting to school by bike and making "bike life" a growing trend,
- Providing encouraging messages in association with the Ministry of Health's Fighting Obesity Campaign; as for the next step, a comparison of cyclists and non-cyclists' personal and state long-term health expense savings could be described (from a healthy-life point of view),
- As we have become a comfort-loving society, make cycling more attractive by making it more comfortable,
- A Declaration of Cyclist Rights can be announced in newspapers and on billboards This is because neither cyclists, drivers nor pedestrians actually know about cyclists' rights,

- Maintaining bike reminders in all public places, streets, squares; keeping the bike idea fresh in people's minds by designing interesting bike parks complemented with elements of public art,
- Promote the comfort of having more time.

The recommendations that fall within the scope of the second question are listed here:

- The lack of separate bicycle paths is a first-degree safety problem. Building separate paths will activate those bike lovers who currently cannot feel safe commuting to their work or school, even though they wanted to;
- Bike lanes must not be built along the main arteries but rather on secondary roads,



Photo 2 – Bike Lane in Europe

- The relevant laws and regulations need to be revised in order to ensure safety. The controls should be improved. The laws and regulations related to cyclist safety must be re-organized; sanctions and controls must be improved so that the negativities cyclists have to endure encounter a real deterrence. The Security General Directorate must control parking bans in a more serious manner,
- People do not use their bicycle just because there are routes for bikes: if they do not think that it is safe to use a bike, then they will not choose to use it,
- A consideration could be adding course content dealing with bicycle riders as part of driver's license courses, so that some sort of empathy can be created,



Photo 3 – Sample applications in the U.S.A

- Motor vehicle drivers' perceptions of "cycling is for entertainment purposes only" need be corrected,
- The Road Traffic Laws and Municipal Laws must include bicycles and a licensing system must be implemented,
- Specifically allocated paths are one way to increasing safety. Public transport drivers should be trained to be more attentive to cyclists. This way, cyclists will be able to have a little more separation from other motor vehicles.

The recommendations falling in the scope of the third question are given below:

- Legal arrangements should be made and implemented,
- A priority of pedestrian > bicycle > car must be applied to all traffic,
- Cyclists using handicap lifts at Metro stations. If handicapped and cycling routes are organized together, then there will be no additional funding required,



Photo 4 - Copenhagen Bike Lanes and their green wave application

- To achieve more effective results, we should create broader, top-down strategies instead of taking small steps,
- Transportation master plans should address bicycle paths in more detail,
- The public transport decision-making institutions should be informed and educated about cycling culture As a continuation of such a program, it is important to train this sector's workers too,

-
- The carrying of bicycles on public transport should be free, while the cyclists themselves traveling on discounted fares,
 - Transfer stations should be built to tackle the problem of topography,
 - At bike rental points, information about long it takes to reach different destinations should be given,
 - "Municipal bike" should exist, just like municipal/regular bus,
 - Vehicle traffic should be banned where there is heavy pedestrian traffic, and bicycle paths should be gradually introduced,
 - Parking areas should be monitored by cameras,
 - Traffic culture must be seen as a whole, not just from the bicyclists' point of view: The bicycle and pedestrian access system should be treated as an integrated whole as part of the city's transportation master plan, with a network and infrastructure being developed,
 - The bike paths and public transport stops' Intersection points should be identified on published maps.

4.6 Other comments and Contributions

Following one-on-one discussions with participants and e-mail feedback, it was seen that if these kinds of events are to achieve effective results and meet expectations then the participation and contributions of the local administrations is very important. The participation of the project-related municipal districts and of the regional General Directorate of Security were of the greatest importance.

Supplied by EMBARQ Türkiye, some additional information on these subject and some helpful international documents (translated) are presented in APPENDIX- 3.

5 Next Steps

5.1 How will we proceed?

The draft report prepared at the conclusion of the workshop will be shared with all of its participants in order to obtain their comments. The Draft Report was prepared at the end of December 2012 and was emailed to all the workshop's participants and stakeholders during the first days of the year. Participants' comments were collected by Embarq Türkiye up until 22 January 2013, when they were then used in the development of the final report. Unfortunately, any comments received after that date could not be incorporated into the report.

Incorporating the comments received, the final report was distributed to all participants and stakeholders during February 2013, as planned.

Following the completion of this stage, preparations for a guide to the design of bicycle paths (and on the design of routes that accommodate bikes) was started. This involved working with the appropriate units of each local administration - one unit from İSPARK was assigned by the Metropolitan Municipality - and taking their technical views into account. This guide is planned to be published during the first months of 2014.

6 Event Photographsı



Photo 5 - The Royal Netherlands Consul-General Opening Speech



Photo 6 - Arzu Tekir's Opening Speech



Photo 7 - EMBARQ Türkiye and YARD 9 Cooperation Contract



Photo 8 – Ali Doğan Şalva's Presentation



Photo 9 - Gerbrand Wiepko Bas's Presentation



Photo 10 - The President of the Cyclist Association's presentation



Photo 11 – Working Groups (with the participation of the I.E.T.T. Business Planning Manager and GM Consultant)



Photo 12 – Working Groups



Photo 13 – Working Groups



Photo 14 – EMBARQ Türkiye's Director Arzu Tekir's interview with TGRT

7 List of Participants

No	İsim	Soyisim	Kurum	Ünvan
1	Ayşe	SABAH		Mimar
2	Ayşe Gökçe	BOR		
4	Çare	OLGUN ÇALIŞKAN	Şehir Plancıları Odası	Şehir Plancısı
5	Demet Burçin	GEZGİN	Yüksel Proje	Şehir Plancısı
8	Duygu	KARAKEÇİLİ		Öğrenci
10	Engin	ERTEKİN	Exporium International	Firma Sahibi
12	Erim	BİKKUL		Sanatçı
17	Hüseyin	GÜLEROĞLU	İstanbul Büyükşehir Belediyesi	Uzman
18	İdil	TUNGA		Ürün tasarımcısı
20	Köksal	ALTUNKAYNAK	İETT	İşletme Planlama Müdürü
21	Lale	BİLDİRİCİ	Anadolu Ajansı	Muhabir
22	Mehmet Emin	ÖKSÜZ	İSPARK	
23	Nur	FINDIK	Userspots	Tasarımcı
24	Ömer	KAYA	İSPARK	
25	Ömer Faruk	AĞCA		
26	Özdek	MEMİK		Endüstri Mühendisi
27	Sedat Sırrı	AKLAN	EMBARQ Türkiye Dernek üyesi	
28	Serkan Korkmaz	ARSLAN	İstanbul Kalkınma Ajansı	
29	Şafak	UZUN	İstanbul Büyükşehir Belediyesi	Uzman
31	Yasemen	GÜRAY	Aktif Yaşam Derneği	
32	Arzu	Erturan	Sokak Bizim Derneği	Şehir Plancısı
33	Erman	Topgul	Sokak Bizim Derneği	Sosyolog
34	Beya	Kural	Bianet	Muhabir
35	Baran Alp	Uncu	Marmara Üniversitesi	Akademisyen
36	Selin	Bilgiç	Effect Hakla İlişkiler	
37	Filiz	Hosken	Effect Hakla İlişkiler	
38	Mesut	Taşkın	UniBusiness	
39	Tonny	Bosch	Dutch Cycling Embassy	Uzman
40	Mert	Torun	Yard9	Urun Tasarımcısı
41	Dan	Smeeth	Superpool	Mimarlık
42	Aslı	Aka	Stratejik Danışmanlık	
43	Beste	Sabır	XXI Mimarlık Tasarım	Editor
44	Esad	Ergün	Bahcesehir Üniversitesi Uygur M	Şehir Plancısı
45	Sinan	Akdere	İETT	Genel Müdür Danışmanı
46	Azad	Yalçın	Fatih Başkanlık	Kentsel Kor&Yer. Uzmanı
47	Şule	Sarıkoç	Kadıkoy Belediyesi	Mimar
48	Burak	Pamukçu	Kadıkoy Belediyesi	İnsaat Mühendisi
49	Ayşegül	Alayat	Royal Institute of Technology	Şehir Plancısı
50	Oğuz	Lotuk	Silivri Belediye Başkanlığı	Harita Mühendisi
51	Behlül	Çetinkaya	Yenisafak Gazetesi	Muhabir
52	Serdar	Özslu	EMBARQ Türkiye	Danışman
53	Bahar	Nama	ITU	Mimar
54	Mecit	Bayramoğlu	Cevahir Holding	
55	Burçin	Çevik	Tosbaa Dükkan	Endüstri Tasarımcı
56	Aydan	Çelik	Tosbaa Dükkan	Cizer-Yazar
57	Rıdvan	Elitez	TGRT Haber	Muhabir
58	Banu	Tuna	Hürriyet Gazetesi	Muhabir

APPENDIX-1

The Workshop Presentations

APPENDIX-2

The Workshop Round Table Questions

Please specify your order of preference for the recommendations presented for each question:
Number one should show your first choice...

- 1) How can we improve Istanbul's bicycle culture?
 - Municipalities could establish bike rental areas
 - Fare discounts could be presented to bike users
 - In certain parts of the city, bicycle-oriented entertainment / sporting events could be organized
 - On special occasions, bike "awareness" events could be organized
 - In neighborhoods, special trial days can be agreed on, and on these days school-home trips by bike would be encouraged
 - Encouragement can be made through the use roadside billboards, posters and "public spots" on television
 - Personal thoughts
- 2) What can we do to make bicycle transport safer?
 - Safe cycling routes with easy access can be allocated to different levels of bicycle user (inexperienced, professional, disabled)
 - Bike lanes can be designed for multi-purpose use (business, entertainment, sports)
 - Designs that ensure bikers' safety can be included in the regulations governing intersections
 - The introduction of the clearly visible signs, especially targeting car drivers, could be prioritized
 - NGOs could organize "safe cycling in traffic" training programs under the leadership of local administrations
 - Personal thoughts
- 3) How can the use of the bicycle be integrated with Istanbul's public transport?
 - When updating the city's master plan, NGOs should be consulted
 - Support can be provided for a complementary bicycle path network that does not use the same corridor as car traffic
 - Priority routes can be identified by surveying cyclists
 - A space for bicycles can be allocated in public transport vehicles (either inside or outside the vehicles)
 - Public transport users with bikes can be offered additional discounts; the concept of "Park-and-Ride" can be extended to bicycles

- Secure bicycle parking spaces can be allocated at transfer points
- Personal thoughts

APPENDIX 3

Additional Information and Supporting International Documents

Road Safety and Bicycle Planning

There are specific engineering principles need to be followed when designing bicycle paths. These principles are summarized below:

- Interaction with other types of transport should be reduced as much as possible. For example, allocating bike paths on sidewalks is very dangerous and is definitely not recommended. Extensive surveys have shown that these kind of bike paths have an accident risk of five-times that of properly separated bike paths.
- In those sections commonly used by bikes and motor vehicles, average speed limits must be reduced. Figure 1 shows what speed and traffic density would be appropriate for which kind of bike path
- Road users' "sight quality" must be protected. For example, users must be able to see each at all times.
- In the design stage, "the users' mistakes' share" must be also included in the design. For example, if the engineers and planners have to work with only the minimum width, this may cause problems in the future.
- Those design factors resulting in complexity must be eliminated, thus enabling both drivers and cyclists to make predictable and simple maneuvers (Figure 2).
- Bike paths must run along physically separated routes wherever there is any section of high speed motor vehicle road (Figure 3).

The Sustainable Transport Association (EMBARQ Türkiye), utilizing the knowledge and expertise of our technical experts, are controlling each of the design variables shown below and will then present the necessary recommendations to the stakeholders:

- The geometric design of the Bicycle corridor (its width, slope, curves, etc.)
- Intersections and traffic lights
- Road lines, markings and sign posts
- Lighting (in general: the quality of daytime and nighttime visibility)
- Interactions with motor vehicle traffic
- Local bicycle users' behaviors and habits
- Vehicle parking locations

As a result of this work, we will obtain a better design if we plan the cyclists' roads in the same way we plan vehicles' roads. However, many engineers and architects see a city's cyclists as if they were pedestrians. In reality, a cyclist is more like a driver than a pedestrian. Bike routes that are not planned in a technically correct manner can cause both confusion and accidents.

Therefore, adding a bike lane to an existing road is not the solution: the design must be undertaken by incorporating all of the road and the road's usage into account.

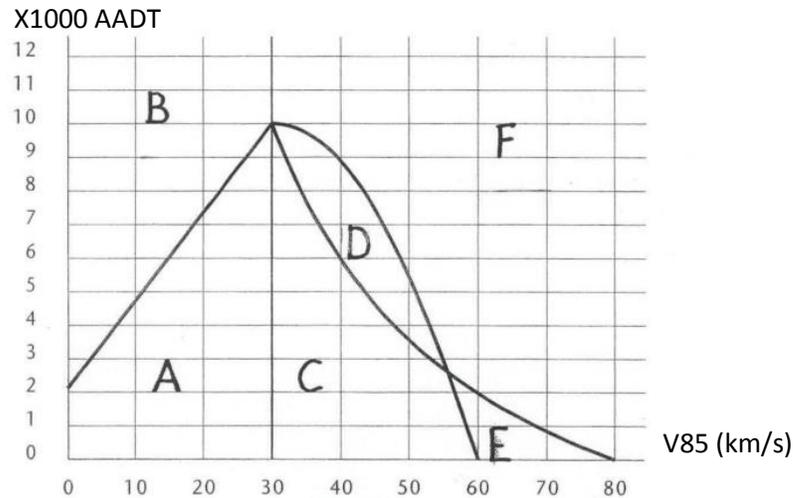


Figure 1 - Bicycle road types

V85 is a frequently used parameter in traffic engineering; it represents the horizontal axis in Figure 1. The V85 speed is the speed that 85 % of all motor vehicles cruise safely past a certain section or point under the normal weather conditions. The vertical axis shows the Annual Average Daily Traffic (AADT) variable. The AADT is found by dividing the number of vehicles passing in a year by 365 to obtain the daily average for a particular section.

If we take each section in the graph one by one:

Section A: If V85 is less than 30 km/s, mixed traffic (common use by bikes and motor vehicles) is advised.

Section B: Sections with high vehicle densities at very low speeds are rarely encountered, often never encountered.

Section C: These can be used without a bike lane or a bike road. However, depending on the road's other characteristics there may be a need for a bike lane or a bike road.

Section D: A bike lane or a bike road is recommended.

Section E: A bicycle lane is recommended. However, the vehicle density is low enough that mixed traffic is also possible. A separate bike road is not advised.

Section F: Given this kind of speed and density, the only possibility is separate bicycle roads.



Figure 2 - A complexity-eliminating design example (the Netherlands)



Figure 3 - A physically separated bicycle road design (Brazil)

Draft Action Map to Improve Bicycle Culture in Türkiye (based on the example of Chile)

This action map was first presented in 2006 following the workshop lead by Dr Alfredo del Valle in Santiago, Chile. Since then, this has served as a template for all of the subsequent workshops run by other local administrations and bicycle users. As the cultures are quite similar, in reviewing this study we have seen that there are many similar steps that can be taken to promote a bicycle culture. Below, the points relevant to Turkish conditions are listed under different headings.

1 The adoption of the bicycle as a mode of transport

- Promoting and encouraging the bicycle as a cultural, citizenship and consumer right
- Developing national wide "Bicycle Use Regulations" to initiate and then protect bicycle use
- Officially recognizing the bicycle's sustainable transport identity, how it supports social connectivity, how it especially improves women and youth mobility, is environmental friendly, contributes to public health and that it should receive more governmental support
- by applying appropriate statistical methodologies, calculating the environmental and economic benefits of different future national-scale bicycle-use projections
- Promoting the bicycle's effects on CO2 emissions and global warming, and including these in carbon-focused studies
- Commercial organizations can include bicycle-oriented projects as part of their social responsibility projects

2 National and Regional Activities

- Providing effective coordination between NGOs and national cyclist associations
- Creating neighborhood cycling groups and training the groups' leaders on how to encourage a bicycle culture
- Organizing an activity, say, a "Bicycle Culture Fest", and repeating this every year.
- Introducing cycling as a sport and supporting cyclists financially

-
- Publishing a country bicycle map every year and announcing where, how and what opportunities cyclists have
 - Starting a "Bike Solidarity" program to donate unused bicycles to various social organizations

3 Research, development and valuations of bicycle-orientated designs and usages

- Establishing a "Bicycle and Bicycle Culture" museum
- Creating a bicycle quality and safety certification system, and establishing a standardization of spare parts
- All protective materials required by cyclists should be evaluated, developed and clearly stated in law
- Organizing two-wheeled and three-wheeled bicycle design competitions; launching the winning designs country-wide
- Reviewing the world's bicycle implementations, and developing methods to harmonize these with national conditions

4 Effectively including the bicycle in public transport policies as a primary mode of transport

- Establishing the bicycle as the primary mode of transport in those residential areas where the total population does not exceed 50,000
- In the schools all over the country, trying to introduce the bicycle as a primary mode of transport; organizing campaigns such as "I go to school by bike"
- Working to make all of the city's short distance (<10km) cargo and food carriers (couriers) choose to use bicycles
- Presenting and supporting the role of cycling in relation to women's independence, mobility and social integration
- Reviewing international bicycle sharing systems, and establishing similar systems here in Türkiye
- Starting programs like bike taxi, bike courier and bike sharing, and then ensuring their continuation

5 Integrated planning with other modes of public transport

- Providing special areas for the cyclists in metro stations and on commuter trains
- Allocating spaces for cyclists in bus terminals

-
- Investigating systems that will allow the carrying of bicycles on inner city buses and then recommending these systems to the related organisations
 - Providing spaces for bicycles on the sea-line ferries

6 Bicycle-oriented infrastructure management

- Supervising the repairs and regular maintenance of the roads allocated to bike use and clearly defining, in law, the content of this work (markings, surface condition, intersection designs etc)
- Specifying the regulations necessary to prevent bike lanes from being established on sidewalks that are already barely wide enough for pedestrians, and then sharing these decisions with all local municipalities
- Having technical experts supervising and controlling the bike corridors' safety statuses, and having this supervision as part of normal periodic maintenance
- Providing specially designed signaling units for cyclists at intersections and separating cyclists' turning maneuvers from those of other vehicles
- Ensuring the grating cavities on roads are not placed parallel to the road so they do not pose a danger to cyclists
- Developing and updating a national bicycle road design guide.

7 The promotion of sustainable urbanization and the reduction of private car use

- Lobbying to have a high level of deterrent fines applied to any drivers who pass through bike lanes or who exceed speed limits on the roads parallel to bike roads
- Reducing the general motor vehicle speed limit in those areas with high bicycle use potential
- Starting to implement "quite areas" around attraction points such as hospitals, schools and public markets; in these areas, reducing the motor vehicle speed limit to 30 km/s and prioritizing the use of bikes
- Establishing a hot line for citizens to complain about the speed violations, polluting vehicles, parking violations etc.
- Reducing the use cars in city centers by implementing projects such as density pricing
- Adding bike roads to the parks in city centers

8 Safety of Cyclists

- Ensuring the implementation of mandatory bicycle insurance.

-
- Establishing a support fund for individuals who have suffered a cycling accident.
 - Developing programs to encourage the use helmets.
 - Adding a section to motor vehicle driver license courses encouraging empathy with cyclists.

9 The Development of Bicycle Tourism

- Preparing cycling maps and markings for foreign tourists in English
- Establishing themed tourist routes, for example, an Ephesus bicycle tour
- Supporting tourist accommodation facilities in their initiation of bicycle rental and sharing programs
- Producing additions to world-famous tourist books (for example: Lonely Planet) such as "Turkiye by Bike"

10 Training programs to develop a culture of cycling

- Providing elementary students with bicycle culture training
- Establishing bicycle repair and maintenance shops
- Opening bike training courses for adults
- Organizing national and international cycling workshops
- Adding compulsory courses about cycling infrastructure and culture to the curricula of universities' engineering and planning departments

11 The use of communication tools in support of bike culture

- Preparing TV programs and public spots on cycling
- Preparing documentaries about cycling and presenting them to the public through various media outlets
- Reaching larger audiences through a weekly TV program on national channels that brings together people from all over Turkiye who love cycling and who have already made cycling a part of their lives.