



LOW-CARBON MOBILITY CHALLENGE TOOLKIT



INTRODUCTION

Our heavy reliance on coal, oil and natural gas is polluting our atmosphere with greenhouse gases. These gases are increasing in volume more rapidly than predicted and in response, the world is warming more quickly. In South Africa, emissions from fuel-burning vehicles make a large contribution to the climate problem. The transport sector accounts for 13% of the country's Greenhouse Gas (GHG) emissions and 23% of energy related emissions. Transport also contributes towards GHG emissions indirectly and has a significant impact on land resources, the quality of our air and water, and biodiversity.

Rapid urbanisation and the apartheid spatial planning legacy has led to urban development that sprawls across cities. Spatial injustice, along with inadequate public transport systems, has produced heavy reliance on private vehicles. As the GDP grows and people become more affluent, private vehicle ownership increases. Private vehicle trips increase congestion and significantly contribute to growing GHG emissions.

In 2015 at COP21 in Paris, the South African government committed to reduce carbon emissions by 34% by 2020. Shifting freight from road transport to rail, private vehicle trips to public and non-motorised transport, and introducing new technologies such as electric vehicles, can ensure this ambitious target is met. The national Department of Transport has drafted a five-year Green Transport Strategy to promote low-carbon mobility across municipalities. This radical shift requires both infrastructure development and changing the minds / attitudes of South Africans.

LOW-CARBON MOBILITY CHALLENGE CONCEPT

INTRODUCING THE CHALLENGE

The Low-Carbon Mobility Challenge provides the opportunity to experience different low carbon mobility options and interrogate the link between transport behaviour and climate change through experiential learning. The Challenge entails teams competing on a journey to pass through a series of checkpoints using various forms of low-carbon transport options (walking, cycling, public transport, or electric vehicles).

The winning team is the one that completes the journey with the lowest carbon footprint, not necessarily the team to finish first.

¹ Department of Transport, 2016, Green Transport Strategy, Republic of South Africa

² Department of Transport, 2011, COP 17

³ Department of Transport, 2016, Green Transport Strategy, Republic of South Africa

⁴ Department of Transport, 2016, Green Transport Strategy, Republic of South Africa

LOW-CARBON MOBILITY CHALLENGE CONCEPT

WHY ARE WE DOING THE CHALLENGE?



PLANTING A SEED & EXPLORING LOW CARBON ECO-MOBILITY

Private cars are the fastest growing source of South Africa's transport greenhouse gas emissions, which are the gases that drive climate change. The challenge aims to demonstrate the solutions offered by the public sector, other low-carbon transport options, and explore the city's public transport system. We can tackle this by reducing the need for transport through spatial planning and location of facilities, shifting from private to public transport, shared or non-motorised transport, and improving vehicle and fuel technologies. The biggest mitigation gain is to be had from private car users moving from using their vehicles to public or shared transport, as well as minimising the demand to buy cars as people move into the middle class.



UNDERSTANDING HOW WE MOVE THROUGH THE CITY

By connecting city officials, transport service providers and transport users from different backgrounds, the challenge can help people to understand low-carbon mobility approaches and how the transport system works from a user's point of view. It encourages debate among a multifaceted group of individuals, which can stimulate creative approaches to low-carbon mobility. The engagement experience within the teams has the potential to create changes in personal and company travel behaviours, professional practices in municipal transport planning and service provision, and in transport provider companies.



COMMUNICATION: GETTING THE ISSUES OUT TO THE PUBLIC

Teams spread awareness about the issues of low-carbon transport as they are travelling to their final destinations by sharing their experiences and extending discussion of the issues to their immediate and extended social networks. The challenge involves participants engaging in debate and posting photos, videos, and information on social media networks, creating hype around low-carbon mobility.

This challenge is also an opportunity for municipalities to address any transport-related issues experienced by residents. These issues could include road safety, social cohesion through access to public and non-motorised transport, gender concerns around mobility, and mobility and health. In your planning sessions, include this item on your agenda and discuss whether these issues, or others, could be highlighted in the challenge. Including related and pertinent issues can expand the pool of potential collaborators that may be tapped to support this project.

STAKEHOLDERS & TEAMS

The stakeholders and teams that you decide to collaborate with will help promote and share the message of the challenge. Stakeholders can provide organisational assistance, come on board as a media partner, or advise on the general strategy and concept of the challenge. Developing relationships with stakeholders is key to the success of the event.

IMPORTANT STAKEHOLDERS TO INVOLVE

Institutions and organisations that have a keen interest in low-carbon mobility issues should be the first that you reach out to. Finding an organisation to partner with is a great way to strengthen the potential of the challenge. Additional organisations can support smaller sections of the challenge or provide services for parts of the journey.

Having a balance between government, private companies and non-profit/governmental organisations will bring different perspectives to the challenge.

Stakeholders can include;

- Universities, and colleges
- Public transport providers (bus, rail, minibus, BRT)
- Non-motorised transport providers and organisations
- Energy efficient transport providers
- Organisations that promote access to public and non-motorised transport, as well as other issues you would like to promote or interlink with this event
- Cultural and sport organisations
- Provincial and local government officials

REACHING OUT & WORKING WITH STAKEHOLDERS

Make contact with potential stakeholders and explain the concept of the challenge. Ask for their collaboration on specific tasks like providing transport for certain legs of the challenge, or to provide gazebos for the checkpoints. Asking for specific items will help them understand what you expect of them. Keep stakeholders informed throughout the process so that they can comment, share ideas and spread information on their social media networks.

TIPS ON DEVELOPING RELATIONSHIPS WITH STAKEHOLDERS

Letting stakeholders know what they will gain from the challenge will encourage them to commit to taking part. Research potential stakeholders beforehand to understand their modus operandi. Their organisation may benefit from the exposure on social media and press, the challenge itself may further the work that they are doing in the low-carbon mobility field, or they may be able to test a service or product during the challenge (a new type of technology or app they have been developing).

RACE TEAMS

There should be a minimum of four teams and a maximum of eight teams in your challenge. The teams should comprise no more than four people, as many people as you can fit into an electric vehicle.

COMPOSITION OF TEAMS

The teams are selected to bring together a diverse demographic of your city's people. The participants should be able to share their different experiences of private vehicle and public transport use to gain a better understanding of the environmental, social and economic impact of our transport choices.

Participants can include;

- City officials
- Influencers (activists, TV, radio)
- Business people
- Residents
- Representatives of other organisations or institutions
- Students

REACHING OUT

Many of your participants may come from stakeholders you have reached out to and activists from environmental NGOs, CEOs of transport providers, and city officials you have begun liaising with. Social media platforms such as Twitter and Instagram are also good places to find influencers, ambassadors for environmental causes and residents who are engaged in low-carbon mobility and environmental debates.



HOW TO ORGANISE A CHALLENGE

1. CREATE A TEAM

The organising team can be made up of members from the different stakeholder organisations. Having one person focused on the logistics and one person focused on the concept of the challenge will ensure that all bases are covered.

2. ESTABLISH RULES & GUIDELINES

The rules and guidelines will establish the parameters of the challenge and can be amended to accommodate particular limitations on modes of transport (bicycles can only be used on certain legs for example) or other factors in your challenge.

The following is a list of rules and guidelines that have been used on previous challenges

- Each team must use a minimum of four modes of transport over the course of the challenge.
- Every team must go to every check point on the route.
- Each team must complete a subsidiary challenge at each checkpoint before proceeding to the next checkpoint.
- Complete your team log of your carbon footprint for each leg of the race.
- You may only log one mode of transport per leg of the race.
- As evidence, take a photo of at least one team member using the mode of transport you have chosen. Upload this photo onto at least one social media platform.
- Teams must arrive at the final destination by X time (choose a time that suits your days schedule).
- All participants must wear helmets when cycling.
- Each member must record their experience throughout the challenge.

YOU ARE ALLOWED TO USE:

- Tshwane Bus Services
- A Re Yeng
- Gautrain
- Other bus services such as PUTCO, Stabus and Gaibus
- All forms of non-motorised transport (walking, cycling, skating, etc.)
- Metrorail
- Minibus taxis
- Electric vehicles or tuk tuks
- Vehicles powered by low-carbon fuels such as solar power or hydrogen

3. PLAN ROUTES

Choosing the route is an integral part of organising the challenge.

Each leg needs to be carefully considered to ensure that as many modes of transport can be used as possible and that it includes different spatial disparities of the city.

ROUTE TIPS:

- Locate public transport hubs in your city.
- Include sections that are walkable and short enough for cycling.
- Include routes that do not follow traditional movement patterns of your city (people generally move from the outskirts to the inner city, find routes that connect places that are less travelled)
- Review your city's transport plans, spatial development frameworks and district development plans to find routes that the city is working on activating through infrastructure development projects.

HOW TO ORGANISE A CHALLENGE

4. CHECKPOINTS

Checkpoints should be culturally or thematically relevant locations that highlight the city in which the challenge is being held. The checkpoints should be easy to locate and familiar to locals.

These can include:

- Heritage and tourist attractions
- Public service buildings (city halls, educational facilities)
- Sports facilities
- Parks and well-designed public places (pedestrianised walk ways, public squares)
- Green buildings

5. TRANSPORT MODES & PROVIDERS

A wide variety of low-carbon transport options should be made available to teams throughout the challenge.

These can include:

- Rail
- Bus & bus rapid transit (BRT)
- Minibus taxis
- Non-motorised transport (walking & cycling)
- Electric vehicles
- Taxi cabs (electric options if available)

6. CHALLENGE MATERIALS

Understanding the issues around low-carbon mobility is fundamental in spreading awareness about the effect of transport systems on the environment. Educating the participants and the public about these issues is the aim of this campaign. Simple information booklets should be provided for participants and press teams. Teams should also receive a log book, where they can record their carbon footprint and their experience on the journey. Include infographics and graphs that help convey the information. The booklets should be no larger than A5 in size so that participants can carry them around throughout the day.

WHAT TO INCLUDE IN THE INFORMATION BOOKLET:

CHALLENGE INFORMATION

- Challenge rules & guidelines
 - Route details
 - Transport options
 - Social media brief
- Emergency contact details
 - Checkpoint details

Include information about other issues you wish to highlight in the challenge.

LOW-CARBON MOBILITY INFORMATION

- Climate change & Transport
 - Transport behaviour and infrastructure in your city
- What needs to change in your city
- What is low-carbon transport?
- What can you, as an individual, do to help?

WHAT TO INCLUDE IN THE EXPERIENCE LOG:

- Carbon calculator
- Record each leg of the journey (mode, experience, expectations)
- Subsidiary challenge details
- Participant questionnaire
- Additional notes and observations

CARBON CALCULATOR

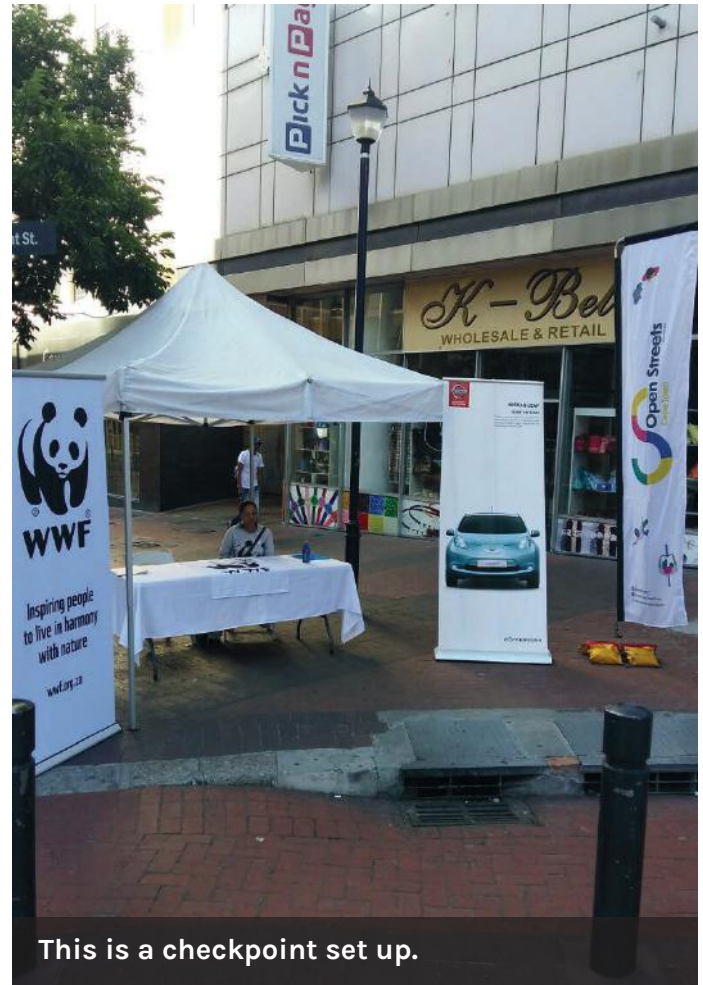
The carbon calculator is the most important tool you will utilise in this challenge as it helps to determine which team will win the challenge. The carbon emissions need to be calculated per mode, according to the specifications of that mode in your city. Trains and buses around the world release a varying amount of greenhouse gases and therefore one cannot rely on foreign data. The link to the app that can do this if you do not have set criteria is www.trees.co.za/carboncalculator/index3.php

SUBSIDIARY CHALLENGES

At each checkpoint, teams are required to complete a subsidiary activity that engages the team, and at times the public, in the low-carbon transport debate. These challenges should be quick and uncomplicated.

Challenges that have been completed in the past include:

- Refill your reusable water bottle (highlighting the water crisis, disposable plastic, access to water fountains in public places)
- Interview a member of the public, upload a 15 second video to social media (engaging the public in the low-carbon mobility debate)
- Public pledge (engage a member of the public to commit to using low-carbon modes of transport where possible)
- "Thank you" note for cyclists and people walking for saving the planet.



THE WORK PLAN

Planning for the challenge should start at least three to five months before the event, in order to secure the key components of the challenge (stakeholders, participants and locations for checkpoints).

Follow a comprehensive checklist with timelines, highlighting which team member is responsible for which task. Begin this process with a meeting that brings together all the stakeholders to brainstorm ideas and formulate a plan.

WEEK ONE

- Host a strategy meeting with primary stakeholders to draft the concept
- Draft the partnership terms and tasks for each stakeholder so that it is clear who is responsible for which parts of the challenge throughout the planning and execution phases
- Plan the route
- Draft the project plan
- Identify checkpoints and contact locations

WEEK TWO

- Draft the communications plan
- Identify participants and potential stakeholders
- Establish legal parameters of events, factor permit submission deadlines into the project plan
- Contact stakeholders (transport providers, prize sponsors)
- Brief a designer for the poster for the event

WEEK FOUR

- Follow up on permit applications
- Reach out to potential participants
- Send out second press release
- Draft roles and responsibilities for tasks on the day
- Follow up with stakeholders who will be providing services or transport modes
- Draft subsidiary challenges, rules and guidelines
- Develop carbon calculator specific to your city

WEEK THREE

- Host a planning meeting with primary stakeholders
- Send out the first press release
- Finalise prizes
- Create a Facebook event and start posting on social media
- Contact checkpoint locations to confirm venues
- Request quotes for all services and equipment you will need on the day

WEEK FIVE

- Identify volunteers who can assist on the day
- Finalise permits
- Finalise service providers
- Draft experience log and information booklet
- Identify videographer, brief videographer
- Draft indemnity form and media release
- Follow up with participants
- Schedule radio interviews

WEEK EIGHT

- Send information booklet and experience log to be printed
- Send any other materials to the printer/producer (T-shirts, bags, water bottles)
- Make payments to all service providers
- Send challenge brief to participants and confirm their participation in the challenge

WEEK TEN

- Follow up with service providers for invoices
- Make outstanding payments to service providers
- Draft challenge report detailing the strengths and weakness of the organisational process as well as the challenge itself
- Send feedback survey to stakeholders and volunteers

WEEK SIX

- Send updated press release to media outlets to be printed in monthly and weekly publications within a week of the challenge start day
- Update stakeholders and service providers on the progress of the planning, ensuring all components of the challenge are in order

WEEK SEVEN

- Send information booklet and experience log to the designer
- Send any other materials that require design work to the designer (T-shirts, bags, water bottles)
- Tighten up the communications schedule for the final three weeks
- Host volunteer briefing

WEEK NINE

- Call all service providers to ensure delivery will run according to schedule
- Call all participants to confirm their participation, ensure they are aware of starting time and location
- Call all volunteers to ensure they are aware of starting time and location
- Brief media teams
- Shop for and pack challenge packs
- Print all documentation for checkpoints and volunteers

HOST THE LOW-CARBON MOBILITY CHALLENGE!

1-2 MONTHS AFTER THE CHALLENGE

- Send follow up survey to participants
- Record survey responses for analysis and reporting/lesson-sharing

COMMUNICATIONS STRATEGY

A clear and scheduled communication strategy will help to ensure that the planning of the event, as well as the coordination of the event on the day, runs smoothly and is effective in communicating the messages of the challenge. Within the work plan, scheduled dates for liaising with stakeholders and participants, as well as press, should be determined.

SOCIAL MEDIA

A key component of this challenge is raising awareness with our peers and the public through social media platforms. Encourage participants to share their experiences - what they see, hear, smell and feel throughout the day - on Facebook, Twitter, Instagram and Snapchat. There should be two strategies for social media; the first will be about creating hype and awareness of the challenge in the planning, and the second is informing participants when to post on the day.

In addition to encouraging participants and volunteers to post about the challenge throughout the day, you may also choose to have a dedicated social media team or representative. This team or person can follow participants for each leg of the race who can then live stream their experiences. This will help to have a continuous flow of social media posts and provide some structure for those following the challenge.

A list of stakeholders, transport providers, and any other organisations involved should be made available to all participants and volunteers so that those who need to be acknowledged are acknowledged.

Make sure to include a list of hashtags in the social media brief for the participants and volunteers who will be active on social media on the day (#lowcarbonmobility, #publictransport #NMT).



BRIEF FOR PARTICIPANTS & VOLUNTEERS

Volunteers who are assisting on the day should have a meeting two weeks before the challenge. Running through the order of the day, assigning specific roles will help the organiser to identify any tasks that are outstanding and ensure that everything is clear and understood by the volunteers. Volunteers should receive a schedule highlighting their responsibilities.

The participants' brief can happen on the day as the first part of the opening ceremony. Clearly explain the rules and guidelines, indicate the experience log and what is required of participants (i.e. filling out the log for every leg of the race, answering the questionnaire). Answer any questions participants may have as this will avoid confusion throughout the day.

COMMUNICATIONS STRATEGY

SHORT FILM

DOCUMENTING

THE CHALLENGE

The challenge has been filmed in all three cities that have hosted the challenge. This is yet another opportunity to capture the issues of low-carbon mobility and how citizens can change their transport behaviour to encourage the growth of more sustainable transport systems.

See links below:

Tshwane 2015 – www.youtube.com/watch?v=ogz9KpzfFhQ

Cape Town 2016 – www.youtube.com/watch?v=CN7zqcRyc4E



PRESS

Having a refined and concise concept note (no longer than a page) for the challenge will help in developing a press kit that can be sent out to local and national media outlets.

The press kit should include:

- concept note – summary of why you are doing the challenge, quick statistics about the issues the challenge will address, how the person / organisation you are addressing can get involved
- stakeholder information
- confirmed participants
- hashtags and handles

The press kit can be used to write articles or schedule radio interviews. Include stakeholders in radio interviews so that a broad set of perspectives are brought into the public debate on low-carbon mobility.

LIAISING WITH

STAKEHOLDERS &

PARTICIPANTS

Have a detailed schedule for when you will make contact with your stakeholders and participants. This should fit in with your work plan so that you have all the information you require to organise the challenge. Try to avoid emailing stakeholders and participants too often, maximising each email to gather as much information as you require at a particular stage of planning. It is also important to ensure that stakeholders and participants have all the information that they need in order to understand the concept and show up on the day ready for the challenge.



WINNERS

The winners will be the team that completes the challenge using the least amount of carbon on their journey. Time is not a factor and should not be taken into consideration when calculating the winning team. If there is a tie between two teams, the teams should compete in a pop quiz to decide the winning team. Winning and runner up teams should be awarded exciting prizes.

OPENING & CLOSING THE EVENT

The opening and closing events of the challenge are a great way to inform participants, the public and the press about the details of the challenge and issues of low-carbon mobility. Representatives from the stakeholder organisations can host different components of the event. Speeches and information should be kept as concise as possible. The events throughout the day should include food and refreshments for both the participants and the volunteer team. The day will be long and strenuous and it is important to keep everyone well fed and hydrated.

OPENING EVENT	CLOSING EVENT
Introduction to the challenge	Conclusion to challenge
Rules & guidelines	Participants feedback
Words from city official	Announce winners & awards
Words from stakeholder org.	Thank you's
Team photos	

OPERATIONS

LEGAL CONTEXT

As you start the planning process, familiarise yourself with the legal requirements around event management in your city. Each city has a set of by-laws which regulate events held in public. These laws could limit capacity, or require that you take certain precautions. Getting permissions can take a long time, so make sure you factor these timelines into your work plan.

PERMITS (location, event, noise)

Certain locations, whether owned by the municipality or privately, require permits in order to be used. Once you have decided on your locations, contact the relevant owner or manager of that location and ask what process needs to be followed to secure the location. Often public places limit the amount of noise in a space, so you may not be able to use a PA system or loudspeaker. Find out if these restrictions apply to your locations.

INDEMNITY

Along with the registration paperwork that each participant will complete, all participants and volunteers should sign an indemnity form. This will help the event organisers to comply with the public liability insurance requirements and will protect you from any legal action if anything were to go wrong.

INSURANCE

Public liability insurance is often required for an event of this nature. Speak to your preferred insurance provider to find out exactly what is required for the specific nature of your event.

Potential risks associated with the event could include:

- Falling off a bicycle
- Vehicle accident (electric scooter / car / Uber)
- Public transport accident
- Dehydration / food poisoning from food provided by challenge hosts
- Getting knocked over by a car while walking / cycling
- Getting mugged en route



OPERATIONAL PLANS

OPERATIONAL

SAFETY

Having a comprehensive safety plan for the event is very important. As participants may engage in modes of transport they are not familiar with and/or in parts of town they do not frequent, there is a chance that people could get injured. Hiring a medic to follow the teams throughout the day will keep participants and volunteers safe and at ease, knowing that medical assistance is a short distance away. Make sure that the volunteers and organisers all have emergency numbers on hand so that they can call emergency services if required.

CHECKPOINT

SET-UP

Each checkpoint should have a minimum of two volunteers. The volunteers will be responsible for ensuring each team passes through the checkpoint and has completed their log and subsidiary challenge. Only once teams have completed these two tasks can they be allowed to proceed to the next check point.

The checkpoints should all be equipped with the following:

- Table & chairs (folding)
- Table cloth
- Gazebo
- Water (5l for participants to refill their bottles)
- Branding - banners & flags (stakeholders & organisations)
- Checkpoint logs to monitor teams
- Stationery (pens, paper, etc.)

CHALLENGE

PACKS

Each participant should receive a pack at the challenge briefing.

The pack should include:

- Challenge information and log booklets
- Pens
- Reusable water bottles
- Snack pack (fruit, nuts, dried fruit and water)
- Tickets or cash for public transport

TRANSPORT

LOGISTICS

(FOR TEAM MEMBERS, PRESS & SECURITY)

To transport the checkpoint setups along the route, it would be advisable to hire/use a panel van. All of the infrastructure for the checkpoints, as well as the opening and closing ceremonies, will be able to fit inside the van. You can also fit two passengers in most vans which can be used to transport volunteers (NB: no transporting passengers at the back of the van).

Remember that minimising trips and vehicles will contribute towards minimising the carbon footprint of the event.

You will only need about three sets of checkpoint infrastructure. Set up the first three checkpoints at the beginning of the day and then you can move the infrastructure to the remaining checkpoints as the teams pass through the first three. This will help to minimise the amount of infrastructure and transportation you require.

OPERATIONAL PLANS

TIME SCHEDULE

FOR THE DAY

Below is a time schedule that you can follow, note that teams may finish earlier or later than anticipated and your plans should be flexible to accommodate these changes.

TIME	TASK
6:50	Arrive at first checkpoint
7:00	Unload checkpoint infrastructure
7:10	Set up checkpoint & brief volunteers
7:30	Move to second checkpoint & repeat process
8:30	Move to third checkpoint & repeat process
9:30	Ensure all is set up for the opening ceremony of the race
10:00	Begin welcome and briefing of participants
10:25	Take photos of each team
10:30	CHALLENGE BEGINS
10:45	Move to fourth checkpoint & ensure all is set up
11:15	Move to fifth checkpoint & ensure all is set up
11:45	Move to final checkpoint. Set up for prizegiving & closing
13:00	Lunch is ready for the teams arriving at the final checkpoint
13:00	Start calculating the teams carbon emissions
14:00	Cut off point
14:30	Closing ceremony & prizegiving begins
15:00	Ensure all participants are able to get back to their cars at the starting point or are assisted with rides home
15:30	Volunteers to assist with packing all infrastructure away

REWARD

Rewards can motivate and excite potential participants. Find out which companies and organisations the stakeholders are well associated with to ask for reward sponsorship.

Rewards in previous challenges have included:

- Day rental electric vehicle
- Bicycle rentals
- Hotel stays
- Restaurant vouchers
- Environmentally friendly products (stainless steel water bottles, hemp clothing, energy saving products)



MONITORING & EVALUATION

EXPERIENCE LOGS

The experience logs are a qualitative way to capture the participants' experience throughout the journey. This log should be clearly explained and checked at each checkpoint to ensure it is being filled out properly. The information gathered from the logs can be used to better understand why the participants make the transport choices that they do, and how their perception of low-carbon transport potentially changes or grows throughout the challenge.

ENTRY & EXIT SURVEYS

These surveys should be completed before the challenge has started and after the challenge has ended. The surveys can be completed by the participants as well as the volunteers. These questions can be moulded to suit the issues you choose to raise in your specific challenge, as well as to suit the person taking the survey (participants, stakeholders, service providers and volunteers).

Examples of entry survey questions:

- Key demographics (age, gender, income group, travelling with children or parcels, suburb where you live, stage of life – high school, tertiary education, adult, retired).
- What mode of transport do you use to travel short distances (less than 2km)?
- What mode of transport do you use to travel longer distances (more than 2km)?
- What would you improve about the mode of transport you use?
- What would encourage you to change from your mode of transport to public or non-motorised forms of transport?

Examples of exit survey questions:

- What mode of transport do you use to get around your city?
- Did you learn anything new about your transport behaviour during the challenge?
- Has something changed in the way you make decisions around transport since you completed the challenge?
- Based on your experience with the challenge, what would make low-carbon transport options more attractive to you on a daily basis?
- Did you enjoy your challenge experience? What would you do to improve it?

TEAM MEETINGS

In addition to the planning meetings, the organising team and volunteers should have a debrief session where they can discuss what worked and what did not. A debrief helps to identify what components of the challenge should be carried over to future challenges and what amendments need to be made.

Examples of questions for a debrief session: What worked? What didn't work? Recommendations.

ROUTE EXAMPLE

This is a route plan example for the Earth Hour Challenge held in Tshwane.

Earth Hour Capital Challenge Route

Arrival At	Activity start Time	Activity End Time	Depart To	Travel Start Time	Travel End time	Modes of Transport
Opening Ceremony at Building 11	07h00	07h45		START		
TUT	08:00	08.15	Eskia Mphahlele Library	08:15	08:45	Taxi Stabus Metro Rail
Eskia Mphahlele Library	08:45	09.15	Loftus Versveld	09:15	09.15	Taxi TBS A Re Yeng
Loftus Versveld	09:15	09:45	Hatfield Station	09:45	10:15	Taxi A Re Yeng Walk
Hatfield Station	10:15	10:45	Solomon Mahlangu Square	10:15	11:15	Taxi Metro Rail
Solomon Mahlangu Square	11:30	13:30	Pretoria Station	13:30	14:45	Taxi Metro Rail
Closing Ceremony at Pretoria Station	16:00	17:30		END		

CARBON CALCULATOR

This is a Carbon Calculator document for the Cape Town Open Streets Challenge.

C4



Team name:

Team member:

Team member:

Team member:

Team member:

Stage	Start point	Next checkpoint	Google Maps distance to next checkpoint [km]	For each stage, tick the mode you use	Petrol car (for comparison only)	Walk/cycle (cycles available for Stages 1 or 2)	Metrorail	MyCiti bus	Golden Arrow Bus	Minibus taxi	eWizz electric motorcycle	Nissan electric car	EMISSIONS PER STAGE
1	Green Point Urban Park (South Gate)	V&A Waterfront Clocktower	2.5	Stage 1 to V&A	137	0	40	45	90	59			
2	V&A Waterfront Clocktower	CBD (corner Waterkant / Lower Burg)	2.5	Stage 2 to CBD	137	0	40	45	90	59			
4	CBD (corner Waterkant / Lower Burg)	Woodstock park on corner Sussex / Albert	3.0	Stage 4 to Woodstock	164	0	49	54	108	71		35	
5	Woodstock Trafalgar Park (corner Sussex / Albert)	Mowbray Town Hall	4.0	Stage 5 to Mowbray	219	0	65	72	144	94	560		
7	Mowbray Town Hall	Langa Guga S'thebe (King Langabibalele)	12.0	Stage 6 to Langa	657	0	194	215	432	282			



PARTICIPANT'S COMMENT

The experience was phenomenal. I had not ridden a bike in 10 years and today made me realise what I have been missing. I saw part of JHB that I had not seen in many years.

Thank you for an amazing day, meeting new people, exploring my city and having loads of fun and laughter.

I am Lizel and I promise to live an eco-friendly life.

Lizel van der Westuizen - Radio Personality



APPENDIX A - EARTH HOUR CAPITAL CHALLENGE

E'S'KIA MPHAPHELE LIBRARY	
Checkpoint Marshal	Kgomoiso (CoT), Mshah (CoT)
Time:	07:48 – 15:30
Duties:	Cot, Earth Hour
	Ensure branding is set up
	Ensure display is set up
	Handing over of activity
	Handing over of due once activity is complete
	Handing out of flyers
	ICLEI, CoT, WWF
	Refill water bottles if needed
	Get the public to sign Earth Hour Pledge
	Event break-down
Contact persons	Mxolisi (Tosaca); 074 927 9280
	Mariska (Eskia Mphahlele); xxx
	Thea (Tshwane CME); 083 452 6061
LOFTUS STADIUM	
Checkpoint Marshal	Mr. Muziwari (CoT); Puleng Moshohi (WWF) Mike Krynauw (CoT)
Time:	08:30 – 10:00
Duties:	Ensure branding is set up
	Ensure table, chairs set up
	Handing over of activity
	Handing over of due on completion of activity
	Refill water bottles if needed
	Check pre-planned social media posts issued
Contact persons	Event break-down Ann Mashiane (CoT); 074 927 9280
	Hugo Kemp (Loftus) 062 462 8386
	Douglas (Loftus); xxx
	Thea (Tshwane CME); 083 452 6061
A RE YENG HATFIELD STATION	
Checkpoint Marshal	Evam (CoT); Janiem (WWF) Fabr (ICLEI)
Time:	09:00 – 10:30
Duties:	Ensure branding is set up
	Ensure table, chairs set up
	Handing over of activity
	Cot, TUT, A Re Yeng

	Handing over of due on completion of activity
	Handing out of flyers
	ICLEI, CoT, WWF
	Refill water bottles if needed
	Check pre-planned social media posts issued
	Event break-down
Contact persons	Cathy (A Re Yeng); Thea (Tshwane CME); 083 452 6061 (TUT Branding); XXX
SOLOMON MAHLANGU SQUARE/Dennebosm station?	
Checkpoint Marshal	Dinesh (CoT), Sello (CoT), Nicholas (ICLEI), Mxolisi (Tosaca), Thato (Tosaca), Calvin (Tosaca)
Time:	10:00 – 15:00
Duties:	Ensure branding is set up
	Ensure table, chairs set up
	Ensure sound equipment is set up
	Handing over of activity
	Handing over of due on completion of activity
	Food packs?
	Wear Ch-Chit?
	Wear Tut?
	Handing out of flyers
	ICLEI, CoT,
	Refill water bottles if needed
	Check pre-planned social media posts issued
	Get the public to sign Earth Hour Pledge
	Event break-down
Contact persons	Mxolisi (TOSACA); 074 927 9280 Thea (Tshwane CME); 083 452 6061

APPENDIX B - SOCIAL MEDIA CHALLENGE

Event day – to be issued by social media ambassadors/participating teams				
Themes				
Teams	Role of cities	Transport	Climate Change	Tshwane
Team 1	Cities can actively promote the use of public transport to lower congestion #EHChallenge	In SA the most commonly used form of motor transport is the mini-bus #EHChallenge	Personal vehicles emit over half the globe's transport emissions. Moving to alternate modes is essential #EHChallenge	@CityTshwane has a pioneering rapid transport system called A Re Yeng #EHChallenge
Team 2	It's vital for cities to improve public transport to encourage increased use #EHChallenge	DYK that Joburg's old electric tram system was dismantled? BRT systems should be electric #EHChallenge	Cities like @CityTshwane are leading the fight against climate change with innovative projects like A Re Yeng #EHChallenge	Ride around @CityTshwane on the gas powered A Re Yeng today! #EHChallenge
Team 3	Cities like @CityTshwane play a pivotal role in encouraging citizens to use public transport #EHChallenge	SA commuters pay as much as 1/3 of their salary to get to work #EHChallenge	By 2050, we could get all the energy we need from renewable sources, such as the sun, wind and water #EHChallenge	Efficient public transport supported will give equal access to @CityTshwane services, infrastructure and amenities #EHChallenge
Team 4	More than 80% of the earth's population will live in cities by 2050 #EHChallenge	Transport plays an integral part in offering basic service access #EHChallenge	Emissions from private cars make a large contribution to the climate problem in SA. Make a difference by using public transport! #EHChallenge	@CityTshwane provides infrastructure in targeted areas to improve public transport #EHChallenge
Team 5	The #EHChallenge is a way for @CityTshwane to showcase and build on its local climate action commitments	Integrated transport is essential for improving cities @CityTshwane #EHChallenge	Renewable energy is a cost-efficient way to provide energy and employment opportunities #EHChallenge	@CityTshwane embarked on an inner city rejuvenation project including cycle and pedestrian friendly infrastructure #EHChallenge
Team 6	Cities consume 44% of the country's electricity, making them ideal candidates to transition to a sustainable future #EHChallenge	Effective urban transport systems must consider intermodal links between public and non-motorised transport #EHChallenge	Reducing the use of private transport and increasing the use of public is essential to lowering CO ₂ emissions #EHChallenge	1 650 bicycles have been delivered to @CityTshwane for distribution to schools under the Shiva Kalula programme #EHChallenge

TEAM LOG

This is a EcoMobility Challenge Team Log from a Joburg Challenge.

EcoMobility Challenge team log

Team name: **Team Young**

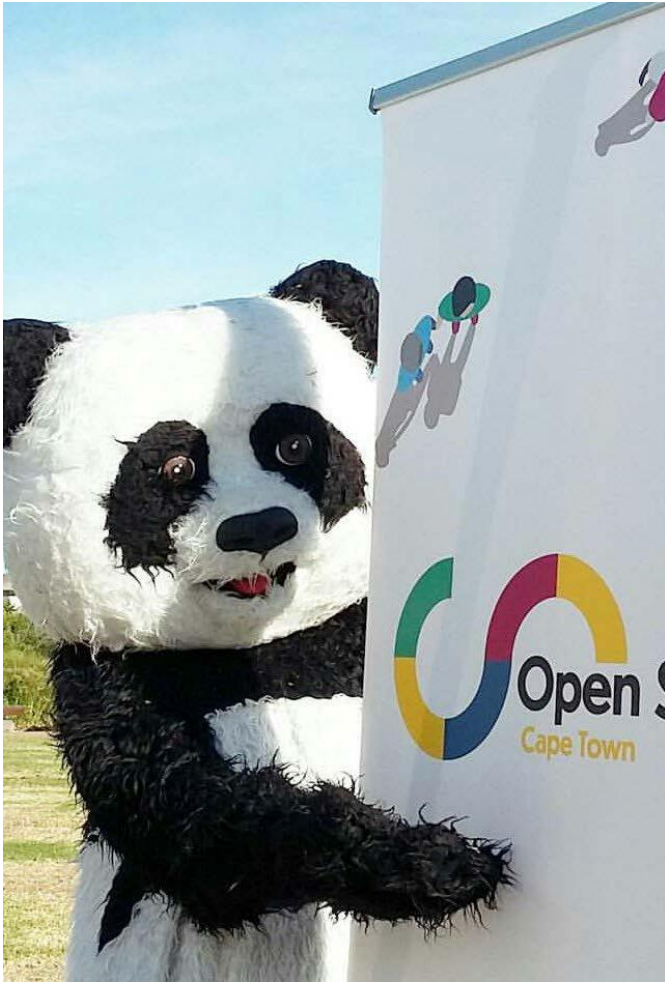


	Petrol car (for comparison only)	Metrobus	Rea Vaya or Gaubus	Metro rail or Gautrain	Minibus taxi	Walk / cycle / skate	Petrol tuk-tuk	Electric car	Evidence	Race official signature
Emissions from transport [g CO₂/passenger-km]										
Stage 1	1202	756	756	1008	864	0	1567	247	Picture.	<i>[Signature]</i>
Stage 2	110	72	72	96	82	0	149	24	Video & Picture	<i>[Signature]</i>
Stage 3	584	371	371	494	424	0	769	121	Picture	<i>[Signature]</i>
Stage 4	1150	756	756	1008	864	0	1567	247	Park station (Videos)	<i>[Signature]</i>
Stage 5	767	504	504	672	576	0	1045	165	Picture	<i>[Signature]</i>
Stage 6 ??	52	34	34	46	39	0	71	11		

TOTAL EMISSIONS FOR RACE

2662





THANK YOU!

Thank you to these organisations for being part of the low-carbon transport challenges, where teams with the lowest carbon footprint win the race:

PARTNERS

City of Tshwane, City of Joburg, City of Cape Town, City of Ekurhuleni, ICLEI and Open Streets

TRANSPORT SOLUTIONS

RAIL: Metrorail, Gautrain

BRT: A Re Yeng, Rea Vaya, MyCiti

BUSES: Metrobus, PUTCO, Golden Arrow Bus Services, minibus taxis

APPS: WhereIsMyTransport, GoMetro, Findalift, UGoMyWay

BICYCLES: Upcycles, Johannesburg Urban Cyclists Association, Qhubeka Bicycles, Camissa Bicycles, Cycology,

ALTERNATIVES: Nissan Leaf, eWizz, eTukTuk, GridCars, SANEDI

CONTRIBUTORS

Accelerate Cape Town, Adventure Inc., Boland Promotions, Cape Talk, City Sightseeing Cape Town, Ernest & Young, Holiday Inn, Hollard, Hotel Verde, KFM, Nedbank, Park Inn by Radisson, SA Institute for Drug-Free Sport, Sanlam, Segway Tours, Soweto Backpackers, Sun International, The Green House, Tshwane University of Technology, Tsogo Sun, Vivreau Advanced Water Systems, Volvo and Zando





THE AtoB CHALLENGE

gives participants a chance to explore transport options and interrogate the link between behaviour and climate change through experiential learning

THE CITY OF

Johannesburg, City of Tshwane, City of Cape Town and City of Ekurhuleni have hosted their own AtoB challenges.



THE TEAM

with the lowest 'carbon footprint' to cross the endpoint before the cut-off time will win the race. This is not a race against the clock - teams can relax and enjoy the "ride".

PROS OF PUBLIC TRANSPORT

Besides curbing climate change, there are many other benefits in shifting to public transport.

All photos in this toolkit are courtesy of Open Streets Cape Town.