

## I. Presentation of the case

Transport for London is the local government body in charge of the transport system in Greater London. Its role is to implement Mayor of London's transport strategy and to manage transport services across London. ([tfl.gov.uk](http://tfl.gov.uk)). It manages the entirety of the road network, 355 miles of railways across London, hundreds of bus lines and other transport services such as the Overground and London Tramlink.

Its current strategy is focused on enhancing the capacity and reliability of the system by expanding the tube, rail and bus network, improving accessibility, encouraging cycling by building infrastructures and improving air quality by reducing carbon emissions. Despite the last objective, it seems that improving the sustainability of the entire system is not a priority. Indeed, the intention to make the network more environmentally-friendly comes sixth in the Mayor's strategy and only focuses on reducing carbon emissions (TfL Business Plan, 2014). As London's population is expected to grow from 8.4m to 10m by 2030 (2012-based Subnational Population Projections for England, 2014), the pressure on the means of transport will increase dramatically, so will the threats to environmental issues such as air quality and waste management (OECD, 2000). Efforts towards a better sustainability of the transport system are therefore essential, but not given the attention they require. To this end, the following memorandum makes strategic recommendations to reorient the Mayor Transport Strategy towards a more holistic sustainable approach.

## II. Memorandum (1091 words)

To: Boris Johnson  
Mayor of London and Chairman of Transport for London

From: Claire Dardignac  
MSc Social and Public Communication  
London School of Economics and Political Science

Date: 22/09/2015

Subject: Strategies for increasing sustainability at Transport for London

Dear Mr Johnson,

First of all, I wish to congratulate you on making Transport for London one the most accessible networks in the world. I am pleased to count myself as a personal user of Transport for London. The recent focus of the Mayor of London strategy for transport on sustainability has come to my attention, as demonstrated by the objective to tackle pollution by introducing a fleet of hybrid buses. However, efforts must be endeavoured to achieve a greater sustainability on the entire network. Indeed, London is expected to grow to 10 million people by 2030, and accompanying this change is a priority. To this end, and as part of my assignment with the London School of Economics, I wish to offer my strategic advice on making London transport system more socially, economically and environmentally sustainable.

At the present moment, the focus of Transport for London's sustainable strategy is to expand the network and improve air quality. The achievements in this domain are substantial. However, TfL strategy should also concentrate on saving energy, managing the firm's exposure to energy shortage and enhance its brand. For this purpose, I have issued three strategic recommendations, grounded in leading social psychology and consumer psychology literature. They are (1) to improve energy efficiency at underground stations, (2) transform disused underground tunnels in socio-economic spaces, (3) redesign TfL journey planner to include sustainable features.

## **Recommendation number 1: improve the energy efficiency of the London underground stations**

As the 2014 report from the Finance and Policy Committee shows, the cost of energy purchase for TfL is expected to rise dramatically. It demonstrates that improving the energy efficiency of existing and new tube stations is not only a matter of sustainability, but could also enable TfL to save on substantial energy costs. This can be achieved through two streams: reducing current energy use by improving existing infrastructures and investing in electricity production technologies. One innovation that has particularly caught our attention is kinetic pads which produce energy from footsteps, such as the tiles produced by the company Pavegen (<http://pavegen.com/technology>). We recommend to test this innovation in Waterloo underground station over a period of six months to evaluate costs to benefits ratio.

In order to ensure the best return on investment in terms of image, communication to inform users that TfL is endeavouring a sustainable transition must be set through appropriate channels. Once the tiles are installed, it is essential to foster interactivity by signalling them and inviting the user to walk on them.

## **Recommendation 2: transform disused portions of the underground rail network into social and economic spaces**

As you may be aware, a few projects to reuse derelict underground tunnels and stations have emerged, such as project Underline from the design firm Gensler. The idea is to transform abandoned portions of the tube network into alternative routes for pedestrians and cyclers, and eventually social and economic spaces. Given the media and public attention these projects have gained, our recommendation is to launch a London-wide consultation of the public about the use that these abandoned stations may be put to. Not only will a project of this scope show TfL's investment in the city's future, hence improving its corporate image, it will also involve the users by creating a public sphere where individuals can debate on equal grounds. Recent studies on consumer expectations demonstrate that involvement of the user is key to foster acceptance of the project and social change. Ways to limit TfL's financial input in this project have been adequately examined. The two best options appear to rely on sponsorship and naming rights, as well as involving local businesses by giving them the opportunity to rent spaces underground.

**Recommendation 3: change the design of TfL's journey planner (app and website) to include green features and structure the community of users**

As of today, the functionalities of TfL journey planner (website and smartphone application) are very limited. As well as including the starting point and destination of the journey, time and date, the choice of the mode of transport, it only presents 3 options for the type of route: "the fastest route", "route with fewest changes", "routes with least walking". The idea is to expand these basic functions to include "routes with the least carbon emissions". In addition, each result should include the amount of carbon emission and personal energy spent by the user in kilocalories. This would gently remind the users that walking or cycling more is a step towards a more healthy and sustainable lifestyle.

Moreover, users should be asked to set up a virtual identity linked to their Oyster and credit card. This will enable TfL to collect data on their travels and use their journey history to improve services. A feedback to the user such as "Congratulations for on your low emissions this week!" can be provided, including a comparison with the amount of carbon that would have been released had they made the journey by car. The app also requires to become a space open for discussion, where specific forums can inform users on how to best achieve sustainability in every day transport.

This recommendation is fairly simple to implement and involve minimal costs. In order to avoid an overload of information that would be counterproductive, the user must be able to disable the notifications and set up their frequency.

We are confident that these recommendations will give substance to the Mayor of London strategy for Transport for London, such as support economic development and population growth while reducing transport's contribution to climate change, as well as help TfL meet its target of delivering £16bn of savings by 2021. By meeting these objectives, TfL has the opportunity of becoming a leading sustainable transport system and set an example for other networks, enhancing London's reputation as a pioneer city. I have no doubt that TfL is ready to take on this challenge.

I look forward to hearing back from you.

Sincerely,

Claire Dardignac

MSc Social and Public Communication

### **III. Social psychology justifications**

The second part of this essay will examine the recommendations made to Transport for London in the light of social psychology and consumer psychology theory.

The report Brundtland (1987) defines sustainable development as “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*” Murphy (2005) notes the emergence of sustainable marketing, defined by Fuller (1999) as “(1) *customer needs are met*, (2) *organisational goals are attained*, and (3) *the process is compatible with ecosystems.*”, as a strategy more and more companies engage in. Drawing from these seminal works, a strategy for TfL was designed to meet the criteria for sustainable marketing. First, the customer needs are met by enhancing the transport system ability to sustain itself by implementing energy-production technologies. Secondly, the organisational goals are attained by limiting TfL’s financial input and recommending energy-saving to help the Mayor of London deliver the pledged £16bn of savings by 2021 (Business Plan, 2014). Thirdly, the proposed strategy is compatible with ecosystems as it recommends energy-saving and raising awareness on carbon emissions per travel. The idea is also to address the social pillar of sustainable development by creating a sense of community around a new project to reuse underground stations and through forums on the application (World Summit Outcome, 2005). Finally, the proposals follow Magee’s recommendation to find a way between top-down approaches (framework and policies) and bottom-up approaches (local initiatives, limited and uncoordinated projects); in other terms, it is about working on both global and local levels. The idea is to get inspired by global frameworks while creating a sense of local community around new socio-economic spaces.

Each of these recommendations will now be justified by the relevant social psychology and consumer psychology theories.

#### **Recommendation 1: improve the energy-efficiency of the London underground stations**

Making underground stations self-sustainable in terms of energy is justified on the economic, environmental and social level.

Firstly, TfL is London’s single largest consumer of electricity and among the top users in the UK. It has an annual requirement for the supply of over 1500 Gigawatt-hours (GWhs) of electricity and is expected to pay £336m to its supplier CCS as part of a 3-year contract (2014

to 2017), a cost which is expected to rise (TfL energy purchasing 2017-2020, 2014). In these conditions, energy-saving must become a priority. The possibility of energy shortages depending on geopolitical situation of UK's energy providers as the network grows is also to be taken into account, as it constitutes a major exposure. By acting proactively and developing new technologies to prevent these risks, TfL will appear as a strong and forward-thinking corporation.

Secondly, the specific technology of kinetic pads was chosen for its interactive potential, unlike solar panels or other energy producing technologies. It would provide an embodied experience that would enhance user's feeling to be involved in energy production and a sustainable way of life (Minton et al, 2012). This will allow them to express their social identity as environmentally-friendly individuals (Tajfel, 1989) through the use of TfL services. Indeed, having a sustainable lifestyle has become increasingly valued and signalled by consumers. According to signalling theory, inherited from evolutionary psychology, human beings signal their social status and category, their belonging to a group in order to gain access to resources (Bliege Bird & Smith, 2005). Following this theory, many brands have been relying on green marketing, which encompasses all the communications and advertising techniques which promote a sustainable lifestyle more than a product in itself. The product is then used by the consumer to signal, or advertise, a particular social identity. By providing an embodied experience and enabling its users to create energy on a daily basis, TfL will give the opportunity to users to signal a sustainable and environmental-friendly lifestyle. This will trigger positive emotions and thus improve their experience of the service provided by TfL (Gilovich, 2015).

## **Recommendation 2: transform disused portions of the underground rail network into social and economic spaces**

The objective of this recommendation is two-fold: create social and economic spaces to enhance brand and launch a London-wide debate to involve users in the project.

The idea is to involve users in a project of great magnitude, which has a potential to federate and enhance TfL's values. It would enable TfL to improve its corporate image and expand its brand narrative by centring it around sustainable and social development. Indeed, by using Goffman's theory of impression management (1958), TfL can enhance its 'self-presentation', that is to say the image it gives to the public, and therefore positively influence the attitude of users towards the company. Although it was primarily designed for human

face-to-face interactions, Goffman's concept of self-presentation can be applied to corporate image (Hooghiemstra, 2000). This can be achieved via appropriate communication on the company's intention to make its activity more sustainable and invest in London's future by creating these socio-economic spaces. Indeed, the selected strategy chooses to enhance corporate responsibility, a notion increasingly valued by consumers (Fuller, 1999). It means including the environment and communities as stakeholders by reducing the firm's ecological footprint and involving users in the transition. Associated with appropriate advertising, these measure are likely to create a sense of community around TfL and improve its corporate image (Murphy, 2005).

In addition, communicating proactively - before the installation of a new technology and the creation of socio economic spaces - can help inform the users that TfL is endeavouring a sustainable transition. It will change the social representations (Moscovici, 1961) of transport as being the cause of pollution and urban discomfort: implementing this technology can also present TfL as being innovative, sustainable and most of all concerned with its users well-being, which is one of its business core values (Business Plan, 2014)

A last expected outcome is to involve the users in the project by launching a public consultation. Indeed, findings by Minton et al (2012) show that in the transportation industry, users want to feel involved before committing to using sustainable transit. By setting up a public sphere in the Habermasian sense, TfL will collect precious information on its users behaviour and expectations as well as ensuring their participation in the production (Bendapudi & Leone, 2003).

### **Recommendation number 3: change the design of TfL's journey planner (app and website) to include green features and structure the community of users**

This recommendation is likely to have three well-documented effects on the psychology of users. Indeed, the use of data such the level of carbon emission and kilocalories spent on a journey can incite them to use a transportation mode that will best suit them from a health and environmentally-friendly perspective.

First, by implementing new features which inform users on the sustainability of their journey, the application and website can provide new affordances that will enable the users to transform their decision-making. Affordances are defined by Gibson (1986) as a relation between an object or an environment and an organism, that affords the opportunity for that organism to perform an action. The concept is mostly used for physical space, but it has

proven its utility for online research as well (Kaun & Stiernstedt, 2014). In this case, modifying the affordances - or potentialities - of the journey planner will most likely conduct the users to adopt a more sustainable mode of transportation.

In addition, the aim of the feedback on their daily, weekly or monthly carbon emissions, associated with a comparison of the carbon emissions had they made the journey by car, is to nudge them into using more sustainable transportation mode. Indeed, the use of positive reinforcement acts as an incentive and can influence consumers decisions (Wesley Shulz, 2007). By using the theme of sustainable development and its demonstrated impact on consumer behaviour, TfL has the opportunity to frame a desired outcome and a sustainable choice as social norms (Magee et al, 2012).

Lastly, the forums, as open spaces for discussion and exchanging views on sustainable transport, can provide a means for social influence and boost compliance to the framed social norms (Cialdini & Goldstein, 2004). The human need for social inclusion will conduct users to follow the prescribed behaviour and norms. In order to limit non-desired outcomes that could impair its activity, TfL should always keep a hand on communications in the forum by issuing official advice based on international regulations and guidelines.

## Conclusion

The present essay presented three recommendations to reorient Transport for London strategy towards a holistic sustainable end. They included (1) improve energy efficiency at underground stations, (2) transform disused underground tunnels in socio-economic spaces, (3) redesign TfL journey planner to include sustainable features. These recommendations, designed to comply with the key principles of sustainable marketing, were justified in the light of consumer psychology theory.



## References

- Belk, R. (1988). Possessions and the Extended Self. *Journal of Consumer Research*, 15(2), 139–168.
- Bendapudi, N., & Leone, R. (2003). Psychological Implications of Customer Participation in Co-Production. *Journal of Marketing*, 67(1), 14.
- Bliege Bird, R., & Smith, E. (2005). Signaling Theory, Strategic Interaction, and Symbolic Capital. *Current Anthropology*, 46(2), 221–248.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annual Review of Psychology*, 55, 591–621. <http://doi.org/10.1146/annurev.psych.55.090902.142015>
- Connor, J. E. (2001). *London's Disused Underground Stations* (2nd edition). London: Capital Transport Publishing.
- European Conference of Ministers of Transport. (2000). *Sustainable Transport Policies*. Paris: OECD Publishing.
- Finance and Policy Committee. (2014, October 14). TfL Energy Purchasing 2017 to 2020. TfL.
- Fuller, D. A. (1999). *Sustainable Marketing: Managerial-Ecological Issues*. Thousand Oaks, CA: Sage Publications.
- Gensler Vision for Disused London Metro Lines Wins London Planning Award | Press Releases | News. (n.d.). Retrieved March 29, 2015, from <http://www.gensler.com/news/press-releases/gensler-vision-for-disused-london-metro-lines-wins-london>
- Gilovich, T., Kumar, A., & Jampol, L. (2015). A wonderful life: experiential consumption and the pursuit of happiness. *Journal of Consumer Psychology*, 25(1), 152–165. <http://doi.org/10.1016/j.jcps.2014.08.004>
- Goffman, E. (1990). *The presentation of self in everyday life*. London: Penguin Books.
- Greene, D. L., & Wegener, M. (1997). Sustainable transport. *Journal of Transport Geography*, 5(3), 177–190.
- Hooghiemstra, R. (2000). Corporate Communication and Impression Management -- New Perspectives Why Companies Engage in Corporate Social Reporting. *Journal of Business Ethics*, 27(1/2), 55–68.
- James J. Gibson (James Jerome). (1986). *The ecological approach to visual perception*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Jones, M. A. (1999). Entertaining Shopping Experiences: An Exploratory Investigation. *Journal of Retailing and Consumer Services*, 6(3), 129–139. [http://doi.org/10.1016/S0969-6989\(98\)00028-9](http://doi.org/10.1016/S0969-6989(98)00028-9)

Kaun, A., & Stiernstedt, F. (2014). Facebook time: Technological and institutional affordances for media memories. *New Media & Society*, 16(7), 1154–1168. <http://doi.org/10.1177/1461444814544001>

Lahlou, S. *Case studies in sustainable consumption and production: energy use and the built environment* (Vol. System innovation for sustainability). Sheffield: Greenleaf.

Magee, L., Scerri, A., James, P., Thom, J. A., Padgham, L., Hickmott, S., ... Cahill, F. (2013). Reframing social sustainability reporting: towards an engaged approach. *Environment, Development and Sustainability*, 15(1), 225–243. <http://doi.org/10.1007/s10668-012-9384-2>

Minton, E., Lee, C., Orth, U., Kim, C.-H., & Kahle, L. (2012). Sustainable Marketing and Social Media. *Journal of Advertising*, 41(4), 69–84. <http://doi.org/10.2753/JOA0091-3367410405>

Murphy, P. E. (2005). Sustainable Marketing. *Business & Professional Ethics Journal*, 24(1/2), 171–198.

Office for National Statistics. (2014). *2012-based Subnational Population Projections for England*. Retrieved from <http://www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2012-based-projections/stb-2012-based-snpp.html>

Organisation for Economic Co-operation and Development. (2002). *Policy Instruments for Achieving Environmentally Sustainable Transport*. Paris: OECD Publishing.

P. Wesley Schultz, J. M. N., Robert B. Cialdini, Noah J. Goldstein and Vlasdis Griskevicius. (2007). The Constructive, Destructive, and Reconstructive Power of Social Norms. *Psychological Science*, 18(5), 429–434.

Retrofitting for Energy Sustainability in Chicago. (2012). Accenture. Retrieved from <http://www.accenture.com/gb-en/Pages/success-acn-helps-chicago-accelerate-building-energy-efficiency-retrofits.aspx>

Tajfel, H. (2010). *Social identity and intergroup relations*. Cambridge: Cambridge University Press.

Transport for London. (2014a). *Annual Report and Statement of Accounts 2013/14*.

Transport for London. (2014b, December). Business Plan 2014. Retrieved from <http://www.tfl.gov.uk/cdn/static/cms/documents/tfl-business-plan-2014.pdf>

United Nations General Assembly. (2005). *World Summit Outcome, Resolution A/60/1*.

World Commission on Environment and Development. (1987). *Our common future*.  
Oxford: Oxford University Press.