A sustainable consumption design, incorporating healthy behaviours:

(Physical Activity Transaction (PAT) Process)

Abstract:

In this paper I would like to suggest, that Sustainable Consumption concept, as an alternative economical / exchange system, is what is necessary, if we are to engage sustainability concepts. As a result, I would like to put ford a proposal, whereby a Physical Activity Transaction (PAT) design, can take the form of an alternative economical / exchange system, so as to engage sustainability concepts. In fact the Purpose of a PAT process, is to link human behaviour processes, within a sustainable consumption strategy.

Key words:

Sustainable Consumption design, physical activity transaction (PAT) process, human / healthy - behaviour processes, Mobil / pedometer devices, incentive reward processes, sustainability, measurement / data information tools, government / individual responsibilities, sustainable lifestyles.

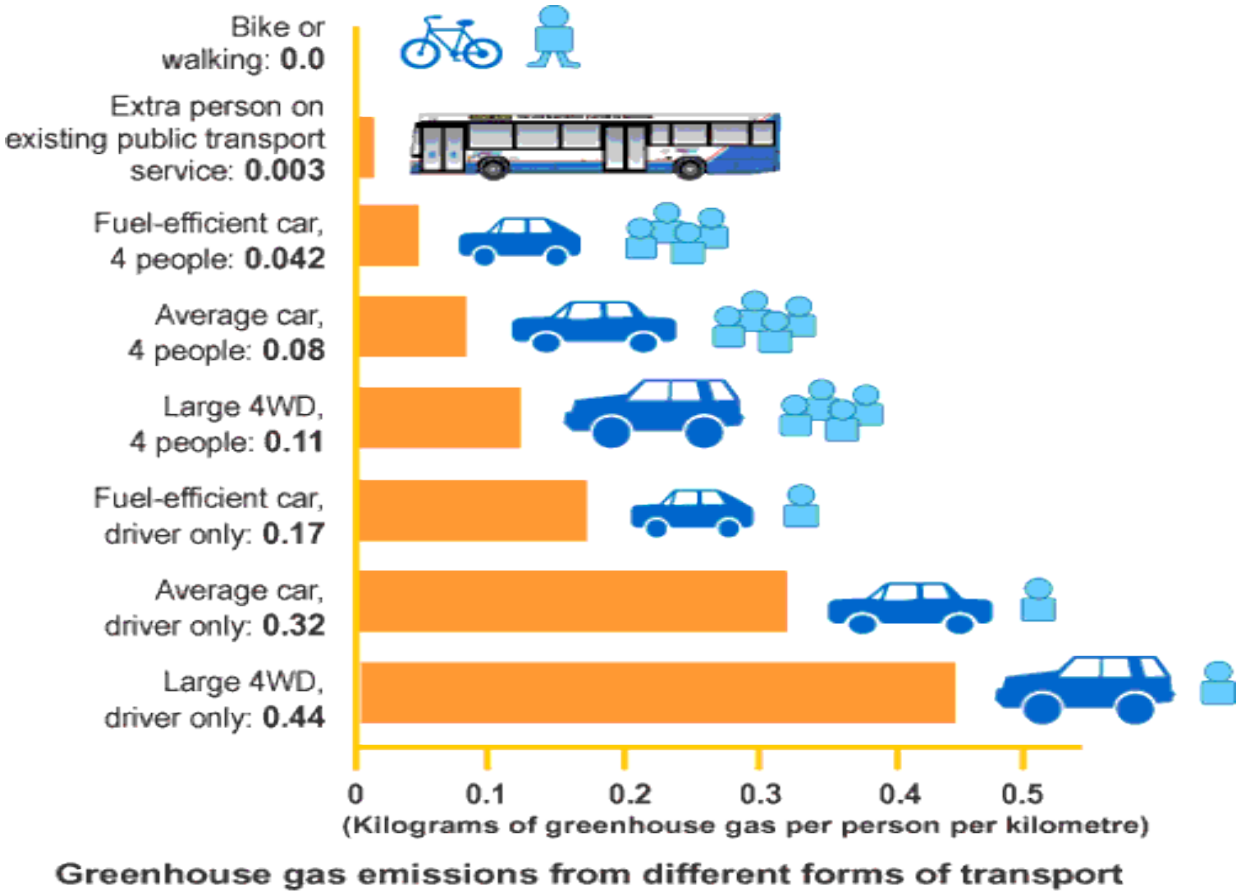
Do we need a new economical / exchange system, to incorporate sustainability concepts into our human psyche and society? Some argue that yes this is the case. In fact according, Tukker, Cohen, Hubacek, and Mont, what is needed is a complete overhaul of our current conspicuous consumer culture, so that it is oriented towards a sustainable consumption and production scenarios (Tukker, Cohen, Hubacek, Mont, 2009, pp.1-3). Whereby sustainable Consumption, is: “The use of basic services / products, but not at the cost of creating environmental destruction, so that a future generation has better quality of life. “p.1 (Untinted Nations - Sustainable Development.un.org, 2015, p.1). In fact according to Jackson, a sustainable consumption concept can be fraught with many dilemmas. This is because, as many consumer cultures, are oriented towards creating, reality based, self – identity constructs and to then suddenly change, may create confusion / angst among many within society (Jackson, 2006, pp. 380-384). However I would suggest, that a slow evolving, sustainable consumption concept, is what is necessary, if we are to engage sustainability concepts. As a result, I would like to put ford a proposal, whereby a Physical Activity Transaction (PAT) process / design, could take the form of an alternative economical / exchange system, so as to engage sustainability concepts. In fact the purpose of a PAT process is to link human behaviour processes within a sustainable consumption strategy. This essay will be using a comparative analysis method, incorporating a literature review process, investigating how and why a PAT processes, can be of benefit, in enhancing sustainability concepts. In fact the reason why a PAT process is innovate in its design is because, it operates within an already established economical /exchange paradigm. I will also indicate that a PAT process has can be used as a measurement tool to indicate obesity, environmental

destruction reductions, and to indicate health / well-being concepts. But 1st off what is a Physical Activity Transaction (PAT) process / design? This can be a process, whereby an individual does some form of physical activity and thus gains points or code, for those physical activity actions and thus in turn, an individual can then exchange transact their points / codes for some form of reward within a business community context (Evans, 2012, p.1) (Appendix - Fig:1).

Yet it has been implied by some that the past / present conventional economical paradigm well organised and efficient and has good environmental measurement strategies in place. Thus it is not necessary to implement any sort of a sustainable consumption process. For instance, past and present conventional planning process have been / are orientated to be responsible for planning for integrated communities. Whereby there are connections and divisions between residential and industrial processes, so as to encourage efficient and reliable economical use, of all resources and products available within a community. Such as reliable transport infrastructure, convent access for all, to consumer and commercial products and services, etc. (Waddell, 2002, p.297). Thus to suddenly change a known reliable environmental / economical - measurement / planning strategy, may only create unknown inefficiencies and confuse many (Thiele, 2013, pp.97, 158). In fact it has also been indicted that engaging a sustainable consumption process, via an incentive reward concept like a PAT process, may not work, because an incentive reward concept revolving around a changing behaviours, health or otherwise, may only have short term outcomes and not be focused on long-term outcomes (Savage, Dalzell, Young Foundation,2009, pp.13-15). For example, it has been shown that extrinsic motivations, such as financial rewards, do not necessary change an attitude / behaviour, they only change something that is done and once a reward is not attained, an action will revert back to what it's always been doing. Such as people on a diet, will put weight back on, if they have not attained a specific weight reward / goal (Kohn, 1993, p.2). Consequently there are many issues to account for, if a PAT process is to work effectively.

Though I would suggest that a PAT process can be / is well organised and has efficient and good environmental measurement strategies in place, to enhance sustainability concepts. Indeed it has been shown, that pedometers, are also useful measurement tool in fighting obesity issues and sedentary behaviours, among other things (Tudor-Locke, 2002, pp.1-2, 5-6). Consequently using a PAT process within a planning strategy, to engage sustainability concepts, is the next logical step. For example, PAT process data information, can inform local planners, where to plan for priority pedestrian sidewalks, cycle-paths, public transport access and open spaces, etc., and in doing so reduce the ecological footprint of an area and enhance sustainability concepts. Indeed, according to Newman, such a process like a PAT process, can be an essential data information tool, in implementing sustainable - mobility management strategies (Newman, 2010, pp. 161,163-164). And as the graph below indicates,

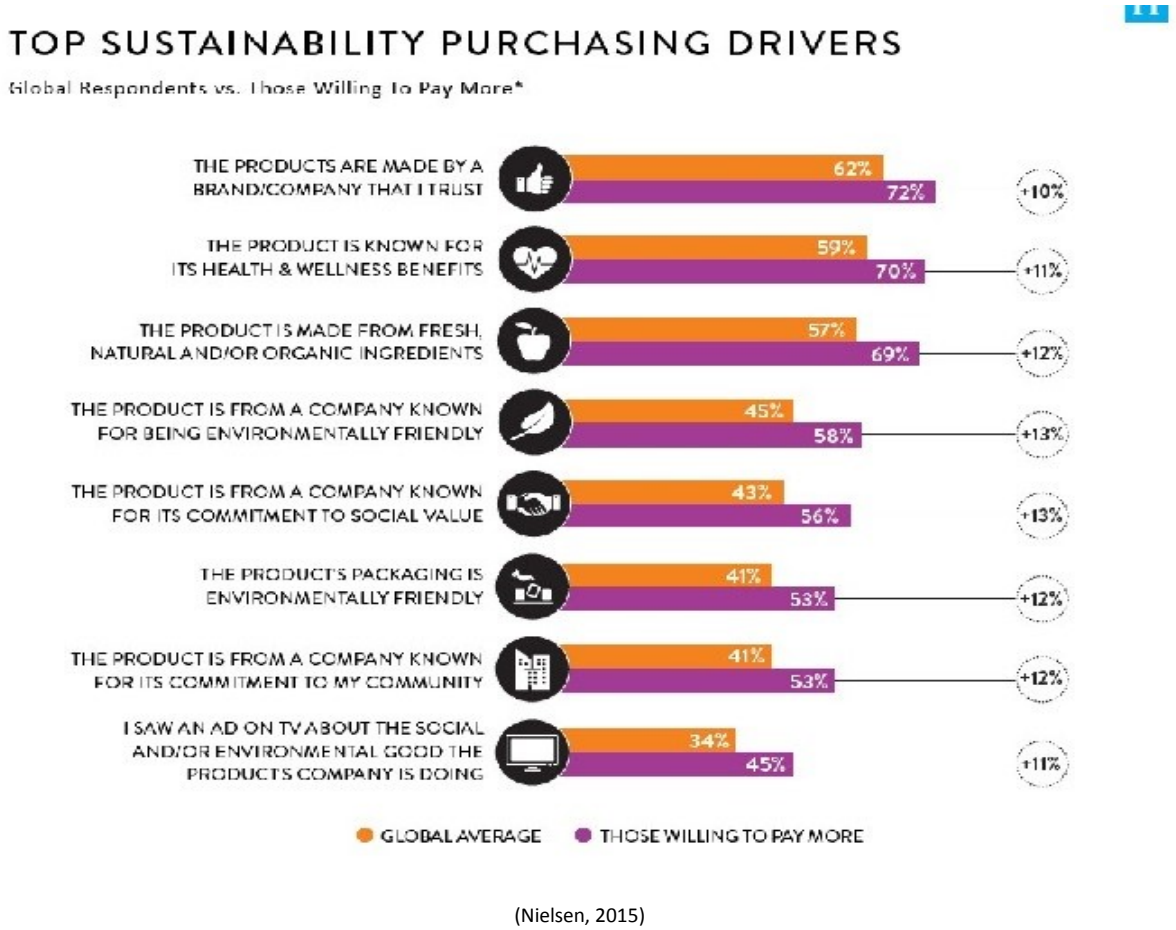
by planners implementing sustainable - mobility management strategies, it is possible that physical activities engaged within an area, can cut around 0.40 - klg of greenhouse gas emissions, per person, per 1- klm (Pacific Western Group of companies, 2016).



(Pacific Western Group of companies, 2016)

The above graph indicates that physical activity, cuts around 0.40 klg of greenhouse emissions, per person, per klm.

It has also been indicted, that an incentive reward process, like a PAT process, can be very good at motivating individuals. For example, a 2009 - pan-London smart card, which was an incentive reward card / program, to engage people in active lifestyles, indicated that if an incentive / reward card was implemented using internet / web interaction, via Mobil devices / phones, to display the relevant information, etc, then it is possible, that this would enhance both short and long term motivational aspects, for a user (Savage, Dalzell, Young Foundation, 2009, pp.29 - 33). Indeed as the graph below indicates, if eco-friendly / sustainability products / services, are used as incentive / reward concepts within a consummation process, then this is a very good motivator, for individuals to purchases these products /services (Nielsen, 2015).



(Nielsen, 2015)

Graph indicating people are happy engaging in sustainable lifestyle consumption process:

In fact it has been indicted, that in encouraging individuals to be responsible for anthropocentric climate change, is in essence, making government agencies, not accountable, for their environmental destruction actions, in the 1st place (Thiele, 2013, pp.7, 24-25,142 - 148, 190, 196). For example, consumers may feel that government agencies, are responsible for climate change scenarios and as such, a sense of apathy evolves for an individual, whereby they feel that any pro environmental behaviours they take, will make little difference, as many government agencies do very little, to solve this problem anyway (Wells, Ponting, Peattie, 2011, p.813). Also some indicate that encouraging to individuals to participate in physical activities, so as to enhance a sense of place, will only create extreme bias within an environmental / nationalistic context (Lewicka, 2011, pp.209, 223-226).For example, if an individual continually exercises in a specific area, then they will become very aware / familiar, of that specific place and biased nationalism concepts can evolve. Which in turn, can encourage parochialism, exclusion, jingoism, self - identity insecurities and conflict dilemmas, for individuals (Fincher, Jacobs, 1998, pp. 2-3, 8-12, 18-19). Moreover, it is possible that encouraging individuals to participate in a PAT like process may be detrimental

to an individual's health, as they may become addicted to the concept of rewards and as such, engage in physical activities that are beyond their bodies' threshold, inducing bodily harm onto their body. For instance, an individual may continually engage in physical activities, due to the reward motivational aspects, and become extremely underweight, malnourished and lose all their energy, etc. Which also in turn could enhance negative wellbeing concerns, such as depression, chronic illness and self-insecurities, etc. (Kuipers, 1996, pp.66-68). Also within an economical context, it may the case that encouraging individuals to participate, in a *conventional* - PAT like consumption concept, only encourages conventional consumption processes, or consumption of more stuff. For instance, conventional consumption processes have an economical driver of planned obsolescence and experiential growth drivers, to keep the present conventional economical paradigm operating (Sterling, 2016, pp.1-2). Also encouraging individuals to participate within a PAT like - sustainable consumption strategy, which recommends that individuals use their financial rewards, to purchase eco-friendly / sustainable products and services, may not be relevant, as this can be / is limited consumer / market area and there are very few business that fall within this consumer orientation category.

However to imply that individuals engaging with a sense of place, via a PAT process, can enhance irrational nationalist overtones, is really taking an extremely misguided perspective. Rather, I would suggest that, it's because individuals participate within a PAT process, that an altruistic minded, sense of place concept evolves, whereby individuals focus on global issues of pro environmental behaviour. Indeed much of this individual, altruistic, pro – environmental behaviour evolves, because Government agencies use consumer based - consummation accounting concepts, so that a government agencies are not accountable for their own negative environmental / trade practices, etc. (Harriss, Shui, 2010, p.10). As a result, individuals engage in altruistic pro – environmental behaviours, to compensate for this understanding. Also to assume that individuals are irresponsible, apathetic or ambiguous, towards alleviating environmental issues, like climate change etc., is also misjudged, in my opinion. For instance, there seem to be many "citizen consumers" in the world at present, who understand that "consciousness consumption" choices, are the best options for long term survival options on our planet (Wells, Ponting, Peattie, 2011, pp.881-812, 828). In fact, to imply that individuals can become addicted to physical activity process, via a PAT process and cause harm to themselves, is also a negative view. As any PAT process would have / has guidelines / monitoring strategies enacted, indicating whether any prior, or ongoing bad-health / addictive concerns etc., are detrimental to an individual becoming / staying a PAT member. Indeed becoming addicted to a physically activity - incentive –reward concept, like a PAT process, would be very limited in reality. For example, human survival dictates that individuals are aware of their physical activity limits, but it is also understood that physical activity in moderation, is very beneficial to the body (Weed, 2016, pp.60-61). Indeed research has shown, that moderate outdoor activities, tend to alleviate depressive symptoms and boost morale, etc. (Korpela, Stenga, Jussila1, 2016, pp. 8-15). Also according to Ricci and Chee, if business's engages their employees in physical activities, via PAT like consumption process, it is possible that more production is done, thus ensuring sustainability / resilience of business (Ricci, Chee, 2005, pp.1227 -1234). Indeed such claims can be confirmed, by a study done in 2014, which indicated that there was a significant gain in

production when employees engaged in physical activities within a workplace (Foster, Linehan, Lawson, 2014, pp.3-4). Also to imply that a PAT process, can only encourage conventional consumption processes, is a misguided venture as well. For individuals in our present societies, are well attuned to the fact that there are many economical, environment and social interconnections that make a society operate effectively. For instance, according to Mobley, Vagias and De-ward, individuals are cognitive aware, of their social and sustainability responsibilities, in all their consumer decision choices (Luchs, Phipps, Hill, 2015, p.1457). In fact this is no more evident than within a free PAT process, whereby any individual / country, can use a free mobile device - pedometer application, so that it can become an economical driver, for ANY individual / country. Indeed if PAT participants spend their physical activity point rewards, on environmentally friendly / sustainable products, such as on fair trade, organic products and green ethical investments, etc., then they are truly engaging within a sustainable lifestyle. For instance, research has indicated that the wrong food choices, account for around 20% of anthropocentric climate change issues (Pearson, Henryks, Rowe, 2010, P.2). Thus a PAT process can / does operate well within a conventional, environmental, social and economical paradigm concept and this is why it can / does work.

In conclusion as I stated at the outset of this paper. I have suggested that an alternative economical / exchange system may be what is necessary, to engage sustainability concepts. I have put ford a proposal, whereby a Physical Activity Transaction (PAT) design, could take the form of an alternative economical / exchange system, so as to engage sustainability concepts. I have indicated that the Purpose of a PAT process is to link human behaviour processes within a sustainable consumption strategy**.** I also indicated that a PAT process can be used as a measurement tool to indicate obesity, environmental destruction reductions, and to indicate health / well-being concepts. In fact I would implore, that it's via our healthy actions and consumer choices, that we can become, true - *sustainable citizens*, and is this not the right thing to do, in all the present climates?

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Appendix:

Figure – 1

Below is Schematic diagram of a how a: PAT - Process operates.

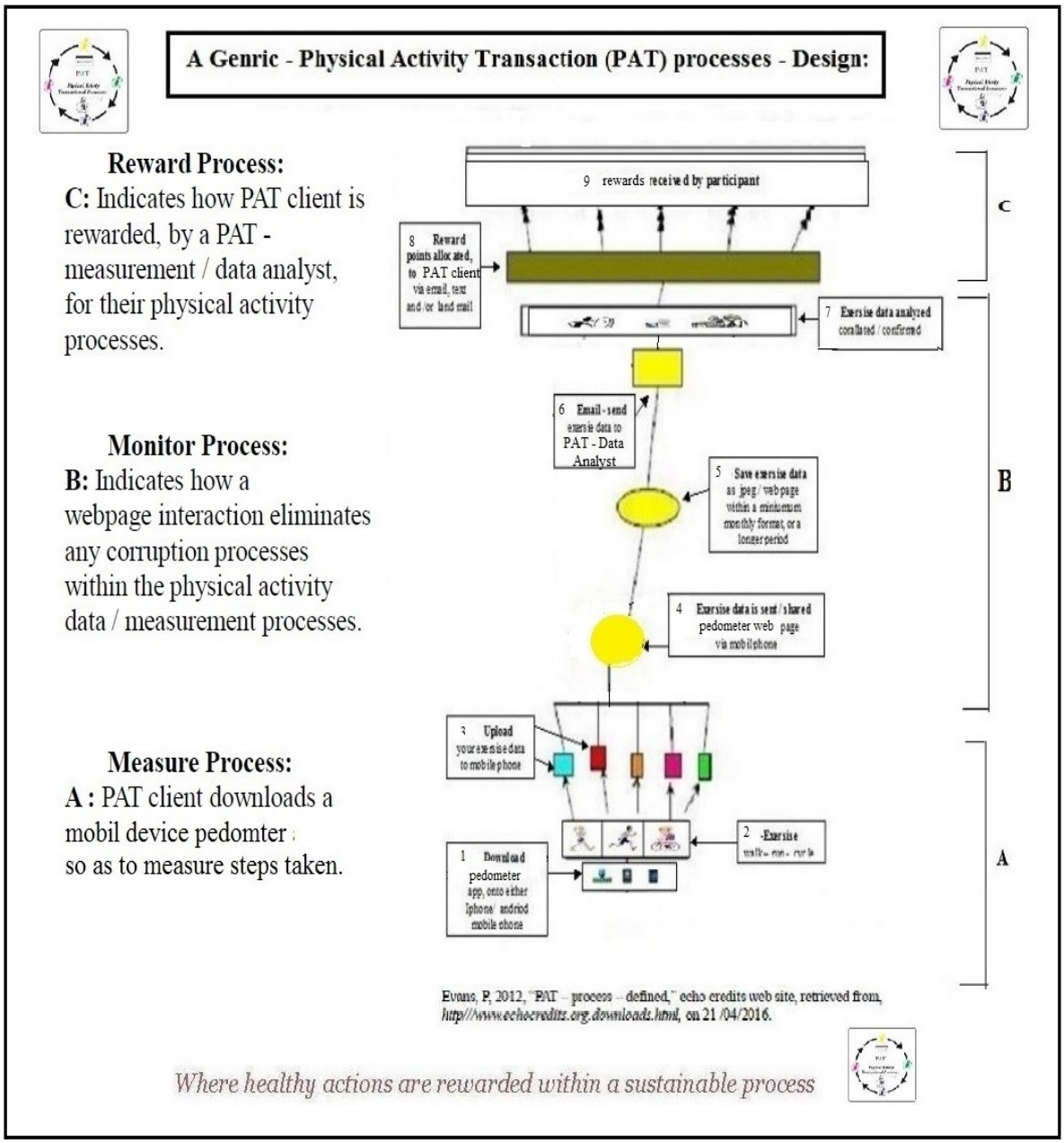

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Figure – 2

Consumer behaviours for developed and developing countries:

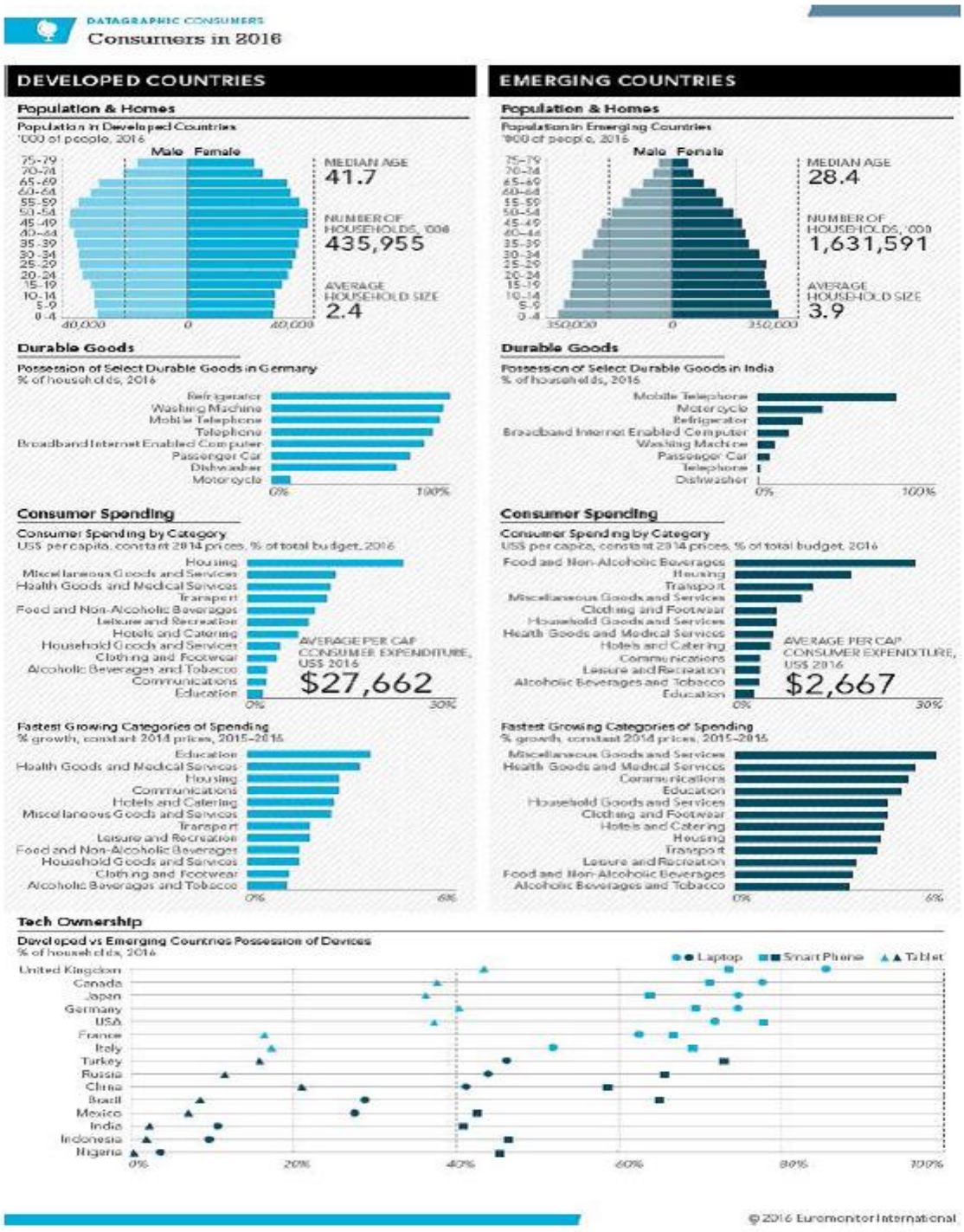

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Figure – 3

Sustainable lifestyle factors:

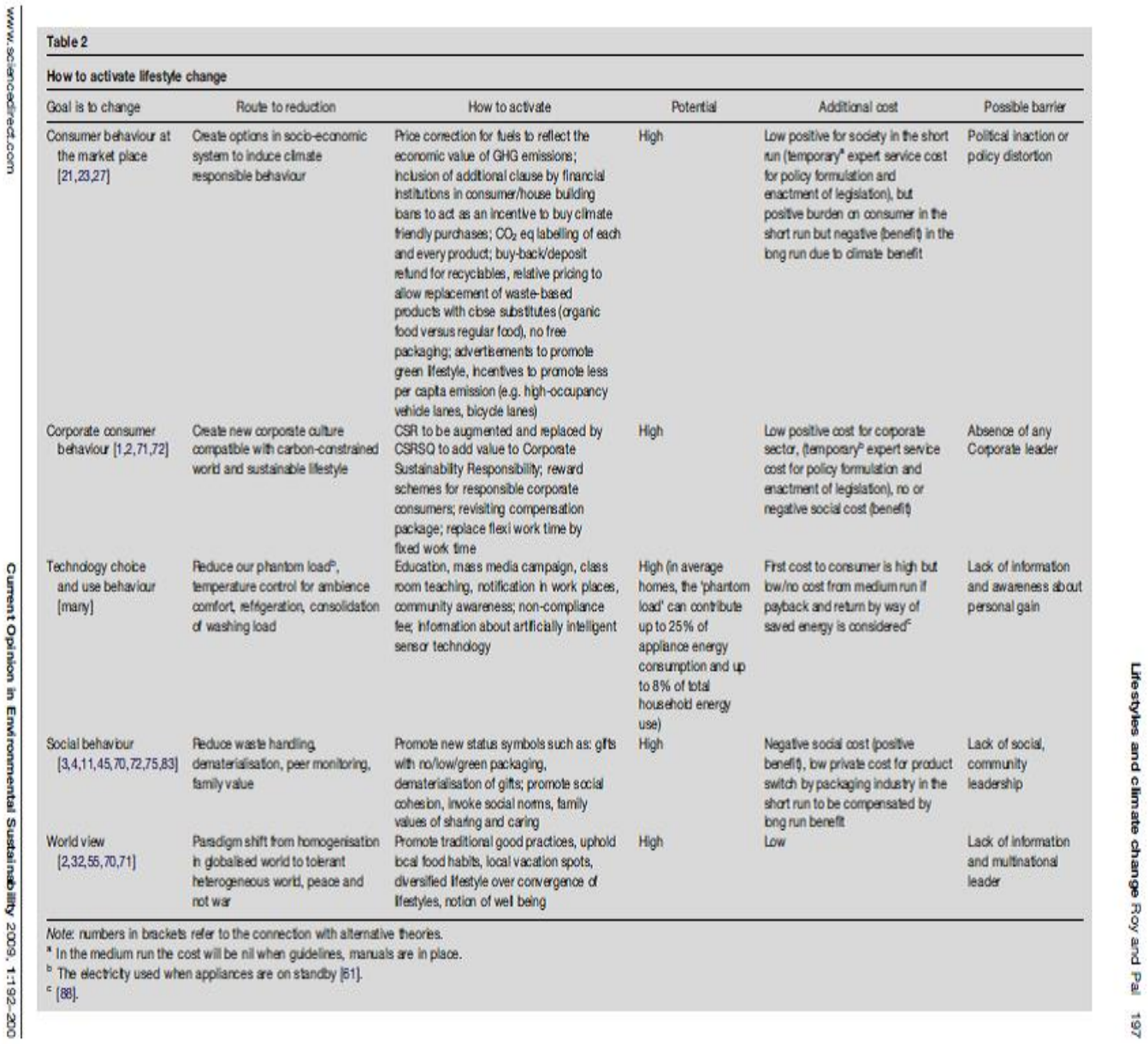

Table 2

How to activate lifestyle change

Goal is to change	Route to reduction	How to activate	Potential	Additional cost	Possible barrier
Consumer behaviour at the market place [21,23,27]	Create options in socio-economic system to induce climate responsible behaviour	Price correction for fuels to reflect the economic value of GHG emissions; inclusion of additional clause by financial institutions in consumer/house building loans to act as an incentive to buy climate friendly purchases; CO_2 eq labelling of each and every product; buy-back/deposit refund for recyclables, relative pricing to allow replacement of waste-based products with close substitutes (organic food versus regular food), no free packaging; advertisements to promote green lifestyle, incentives to promote less per capita emission (e.g. high-occupancy vehicle lanes, bicycle lanes)	High	Low positive for society in the short run (temporary[a] expert service cost for policy formulation and enactment of legislation), but positive burden on consumer in the short run but negative (benefit) in the long run due to climate benefit	Political inaction or policy distortion
Corporate consumer behaviour [1,2,71,72]	Create new corporate culture compatible with carbon-constrained world and sustainable lifestyle	CSR to be augmented and replaced by CSRSQ to add value to Corporate Sustainability Responsibility; reward schemes for responsible corporate consumers; revisiting compensation package; replace flexi work time by fixed work time	High	Low positive cost for corporate sector, (temporary[a] expert service cost for policy formulation and enactment of legislation), no or negative social cost (benefit)	Absence of any Corporate leader
Technology choice and use behaviour [many]	Reduce our phantom load[b], temperature control for ambience comfort, refrigeration, consolidation of washing load	Education, mass media campaign, class room teaching, notification in work places, community awareness; non-compliance fee; information about artificially intelligent sensor technology	High (in average homes, the 'phantom load' can contribute up to 25% of appliance energy consumption and up to 8% of total household energy use)	First cost to consumer is high but low/no cost from medium run if payback and return by way of saved energy is considered[c]	Lack of information and awareness about personal gain
Social behaviour [3,4,11,45,70,72,75,83]	Reduce waste handling, dematerialisation, peer monitoring, family value	Promote new status symbols such as: gifts with no/low/green packaging, dematerialisation of gifts; promote social cohesion, invoke social norms, family values of sharing and caring	High	Negative social cost (positive benefit), low private cost for product switch by packaging industry in the short run to be compensated by long run benefit	Lack of social, community leadership
World view [2,32,55,70,71]	Paradigm shift from homogenisation in globalised world to tolerant heterogeneous world, peace and not war	Promote traditional good practices, uphold local food habits, local vacation spots, diversified lifestyle over convergence of lifestyles, notion of well being	High	Low	Lack of information and multinational leader

Note: numbers in brackets refer to the connection with alternative theories.

[a] In the medium run the cost will be nil when guidelines, manuals are in place.

[b] The electricity used when appliances are on standby [61].

[c] [88].

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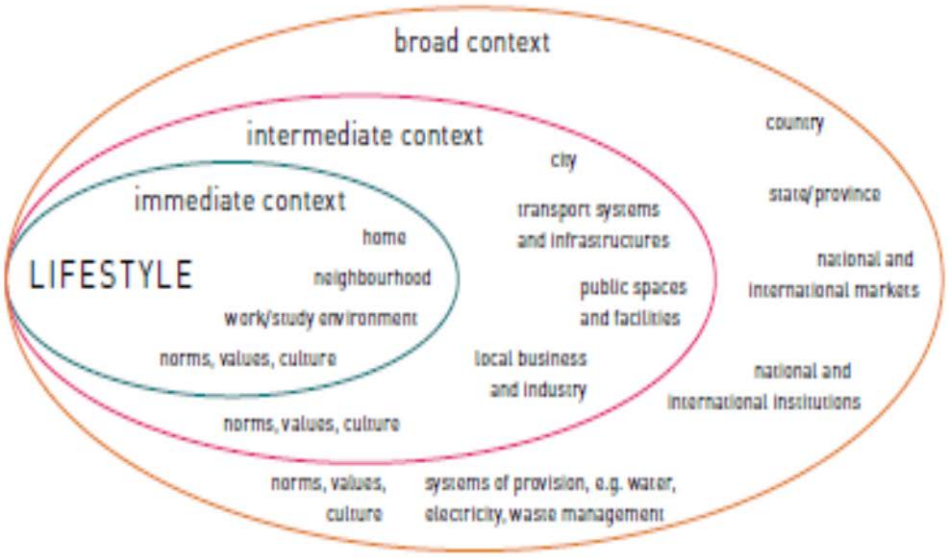
Figure – 4

Sustainable lifestyle factors:

CHANGING NORMS AND VALUES

A shift from unsustainable to sustainable lifestyles is complex, involves many changes on many levels, in many domains and among many people, regulations, institutions, etc. (Figure 18).

Figure 18 Three layers of context



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