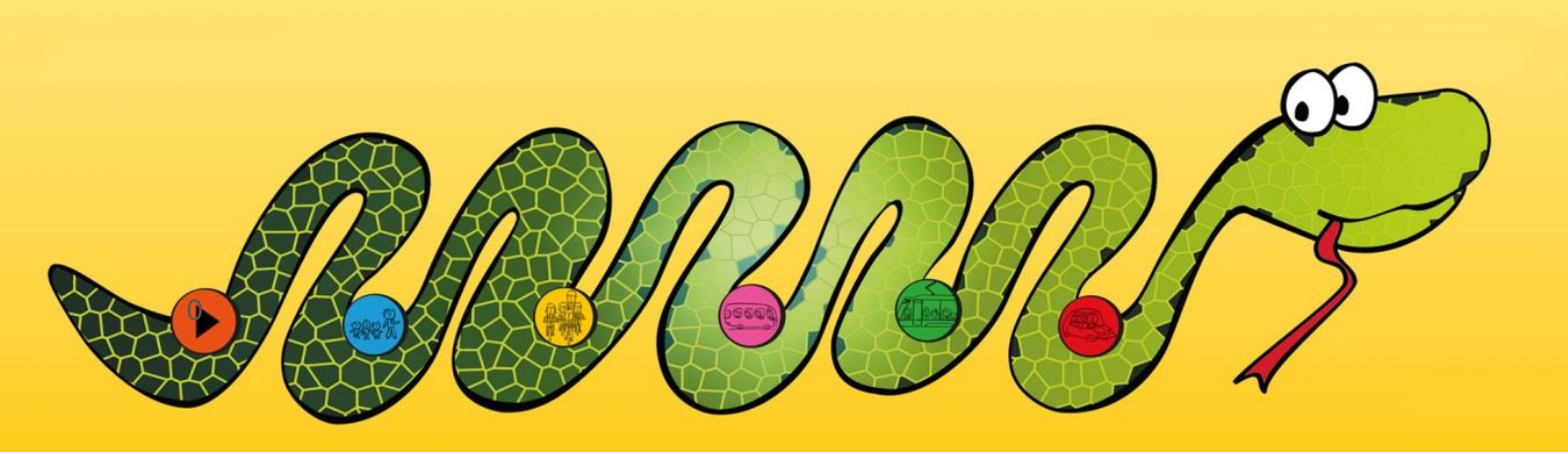

The TRAFFIC SNAKE GAME NETWORK

Common Performance Indicators

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Content

1. Introduction

1.1 Project Background

The Traffic Snake Game is a campaign to promote walking and cycling to school for children (age 4-12), their parents and teachers. It was created by Mobiel 21 and started out as a small campaign with only a handful of schools in Flanders, Belgium. Throughout the years the number of European countries playing the game has increased.

Many countries have used this campaign to encourage people to try alternatives to the car for home-school trips. Evidence from the CONNECT[1] project has shown that the campaign successfully increases sustainable transport modes and reduces CO_2 emissions.

The Traffic Snake Game Network (TSG Network) has been established to share the experiences of the game with more schools across Europe and beyond. This network of partners disseminates the campaign, extends its impact and publicises the results and experiences that keep the award-winning[2] campaign alive. The TSG Network functions as an observatory that disseminates, supports and monitors the Traffic Snake Game worldwide. The European Commission has favoured the network for partial funding between 2014-2017. The project team aims to establish an effective EU-wide and long-term support network to replicate, transfer and expand the take up of the Traffic Snake Game.

1.2 Project Objectives

The objectives of the Traffic Snake Game Network are:

- To train, guide and support the National Focal Points (NFP's) in motivating and activating cities and/or schools to join and run the improved Traffic Snake Game campaign.
- The introduction of a digital platform to enable the campaign to function as a long-lasting practical platform and tool for campaigning and monitoring an energy-efficient modal split.
- Becoming self-supporting after the project lifespan in order to maintain the action and build up (national) structures for long-term strategic changes.
- To target primary schools to generate a modal shift within the (travel) behaviour of the target group, namely at least 15% more sustainable trips during the campaign and a retention effect of at least 7% after the action.
- All the NFPs will implement the campaign in at least three cities in their country and in at least 60 active schools over the course of three years.

[1] See: CONNECT project evaluation. Public Summary Report. October 2010. CONNECT Consortium.
[2] The project was awarded the Sustainable Energy Europe Award in the category 'Promotional, Communication and Educational Actions'. The jury praised it for setting up new mobility campaigns in which pupils play a central and active role. The high replication factor allows a snowball effect: more and more schools and children participating in the project and its aim to increase the use of sustainable transport modes.

1.3 What are Common Performance Indicators?

The assessment of the impacts is a key aspect within the management of IEE projects[3]: this is important to measure the success of a project and in turn the entire IEE programme. Impacts are identifiable changes which demonstrate the extent to which activities have an effect on the target group; these include quantifiable energy-related impacts both within the duration of the action and beyond its lifetime, known as IEE Common Performance Indicators (CPI).

TSG Network started with a united, overall set of CPI's that were accepted by the EU commission (see section 2). It was suggested that country specific data should be provided in the first months of the project to better understand the impacts of the game within individual countries. The TSG Network has searched official European level sources and national government sources to collect this data. This document provides an updated set of IEE CPI's including their baseline and assumptions for extrapolation (see section 3).

The performance of TSG Network is measured in less kilometres travelled by car for home-school trips. To ensure a common understanding of the calculations, a list of abbreviations, units, conversions and calculation methods is given below in Table 1.

Abbreviation	Explanation	Calculation
Toe	Tonne of Oil equivalent, amount of energy released by burning one tonne of crude oil	1 Toe = 11.63 KWh
CO2eq	Carbon dioxide equivalent	1kwh = 0.266 kg CO2eq
kWh	Kilowatt hours, unit of energy	Fuel oil= 10.96 kWh
l/km	Average fuel consumption per person/km for cars	0.059l/km
gPM/km	Average of PM emissions of particated factor/km	0.04g

Table 1: Abbreviations, explanations and calculations

- Toe, CO2eq and kWh conversions are based on calculations and conversions available at the Carbon Trust website. The Carbon Trust is a world-leading organisation helping businesses, governments and the public sector to accelerate the move to a sustainable, low carbon economy through carbon reduction, energy-saving strategies and commercialising low carbon technologies. This is a common and shared assumption for all countries.
- l/km is based on the average fleet-consumption of BMW Group.

[3] Intelligent Energy – Europe (IEE) offers a helping hand to organisations willing to improve energy sustainability. Launched in 2003 by the European Commission, the programme is part of a broad push to create an energy-intelligent future for us all. It supports EU energy efficiency and renewable energy policies, with a view to reaching the EU 2020 targets (20% cut in greenhouse gas emissions, 20% improvement in energy efficiency and 20% of renewables in EU energy consumption).

- gPM/km is based on the average of PM emissions of particulated factor/km (source: Eionet.europa).

1.4 Which Methodology?

The TSG Network chooses to use a bottom-up methodology to measure the impacts of the campaign. Baseline data from each campaign year can be assessed 3 moments

- The pre-measurement that schools are required to complete. This is a hands up survey conducted in all schools that implement the campaign.
- During the campaign modal shift is being tracked by a daily hands-up method.
- A few weeks after the campaign a final hands up survey will be held and the data from the various surveys will allow the campaign impacts to be measured.

Post campaign surveys will provide insight into the longer term impacts of the Traffic Snake Game.

2. Original CPI's

The TSG campaign is designed in such a way that the number of kilometres travelled by each mode can be collected. These measurements are compared with the baseline, which is collected before the start of the campaign. What is important is the actual modal shift, in particular the amount of saved car-kilometres or car-kilometres that have been replaced by sustainable modes.

Base assumptions include:

- all schools conduct **10 campaign days per year** (normally 2 successive school weeks, could also be 1 week in spring and one in autumn); and
- the campaign days result in **15% reduction in car trips** (during 10 campaign days) with a **retention effect of 7% reduction in car trips** (measured **3 weeks after** campaign); reaching
- **9000 pupils** per country = 60 schools with 6 classes of 25 pupils.

This is based on a campaign set-up and agreement that it includes 10 campaign days or 2 school weeks. The modal shift methodologies are based on previous TSG experiences gained within the CONNECT project[4]. This is a common and shared assumption for all countries.

The assumption is that all countries reach a **targeted minimum of active 60 schools.** This number is needed to reach **9000 pupils per country in the 3-year project lifespan** based on average class size of 25 pupils and 6 participating classes per school. In CONNECT the average trip distance of the group that did a modal shift (changed into more sustainable modes) was 3 km. Calculations are based on these assumptions and estimate Toe, CO2eq, kWh, l/km and gPM/km as presented in Table 1.

These original TSG Network CPI's were based on prior experience and EU-level data if and when available. As forecasting set-up we **assume an average 'balanced' scenario with an equal spread of schools over the 3 project years**, namely of (at least) 20 active schools per campaign year, resulting in 60 schools. In an 'ideal' scenario this would be 20 cumulative schools each year where all who join keep playing in successive years, resulting in 60 active schools in year 3 but in fact a total of 120 active schools throughout the 3-year project:

- Balanced: 20 schools in year 1 + 20 other schools in year 2 + 20 other in year 3 (= 60 participating schools in total over 3 years)
- Cumulative: 20 schools in year 1 + 20 schools from year 1 still playing and 20 more schools in year 2 (=40 active schools in year 2) + 40 schools from year 2 still playing and 20 more schools in year 3 (=60 active schools in year 3) (= 120 active schools in total over 3 years)

Figure 1 illustrates these scenario's.

[4] See: CONNECT project evaluation. Public Summary Report. October 2010. CONNECT Consortium.

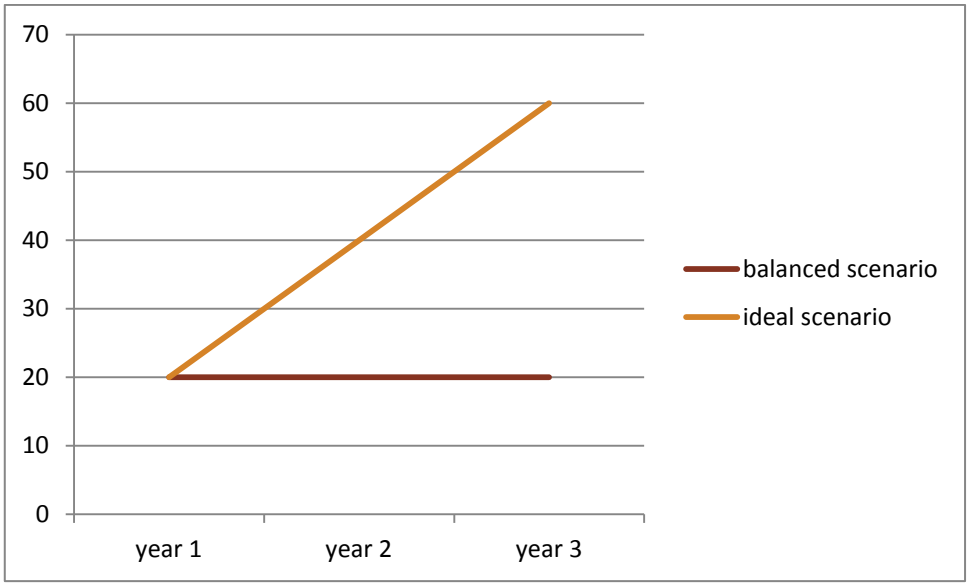

Figure 1: TSG Network scenarios
(x-axis = campaign years | y-axis = number of active schools)

Previous experiences in CONNECT suggests **reality would most likely be somewhere in-between this range, with differences between and within countries.** Table 2 provides the overview of original calculations and expected CPI objectives where the project overall output is expected on average to represent the balanced scenario. The blue marked sections identify anticipated contributions to EU 2020 targets within the action (yearly, total) and the target by 2020.

campaign			
	countries	19	
	annual campaign days 'during' (2 successive school weeks)	10	
	modal shift 'during' (direct campaign effect)	15%	
	annual campaign days 'after' (3 successive school weeks)	15	
	modal shift 'after' (retention effect)	7%	
schools		per country	all countries
	numbers of pupils targeted (yearly)	3 000	57000
	av. number of participating pupils per year per class	25	
	needed number of participating classes per year per school	6	
	av. trip distance home-school group modal shifters (in km)	3	
calculation factors			
	l/km - average fuel consumption per person per km for cars	0,059	
	gPM/KM - average PM emissions of participated factor per km	0,04	
	kWh - kilowatt hours unit of energy	10,96	
	CO2e - carbon dioxide equivalent	0,266	
	Toe - tonne of oil equivalent	11,63	
equal spread of 20 schools per year		per country	all countries
	- number of active schools – yearly	20	380
schools	total number of active schools - project lifespan	60	1140
	- number of participating classes – yearly	120	2280
classes	total number of active classes - project lifespan	360	6840
	- number of participating pupils – yearly	3000	57000
pupils	total number of participating pupils - project lifespan	9000	171000
	- km saved 'during' campaign – yearly	27000	513000
km	total amount of km saved 'during' campaign - project lifespan	81000	1539000
	- km saved 'after' campaign – yearly	18900	359100
km	total amount of km saved 'after' campaign - project lifespan	56700	1077300
	- km saved 'total' campaign – yearly	45900	**872 100**
km	**reduction of car trips in km - project lifespan**	**137 700**	**2 616 300**
	target by 2020	**321 300**	**6 104 700**
	- liters fuel saved 'total' campaign – yearly	2708,1	**51 454**
liter	**liters of fuel saved - project lifespan**	**8 124**	**154 362**
	target by 2020	**18 957**	**360 177**
	- equivalent in energy saved 'total' campaign – yearly	29681	563 935
kWh	total equivalent in energy saved 'total' campaign - project lifespan	89 042	1 691 804
	target by 2020	207 765	3 947 543
	- equivalent in toe saved 'total' campaign – yearly	2552	**48 490**
Toe	**primary energy savings - project lifespan**	**7 656**	**145 469**
	target by 2020	**17 865**	**339 428**
	- CO2 reduction 'total' campaign – yearly	7,90	**150**
t CO2e	**reduction of greenhouse gas emissions - project lifespan**	**23,7**	**450**
	target by 2020	**55,3**	**1 050**
	- PM reduction 'total' campaign – yearly	1836	**34 884**
g PM	**reduction of PM emissions - project lifespan**	**5 508**	**104 652**
	target by 2020	**12 852**	**244 188**

Table 2: Original TSG Network CPI based on 'balanced' scenario

3. Updated CPI's

Base assumptions of the campaign remain the same:

- all schools conduct **10 campaign days per year** (normally 2 successive school weeks, could also be 1 week in spring and one in autumn); and
- the campaign days result in **15% reduction in car trips** (during 10 campaign days) with a **retention effect of 7% reduction in car trips** (measured **3 weeks after** campaign).

To begin the country-specific update process, each partner was asked to send their national average figures for the following indicators:

- **Average number of pupils per class**
- **Average trips distance (in km) to primary schools**

The combination of active pupils and avoided car-km in favour of more sustainable km is the point of departure of all CPI output.

Smaller **class sizes** than the original assumption cause a need to address more classes (or even schools) to reach the desire target of active pupils. Vice versa with larger class sizes.

The gathered country-specific data suggests smaller classes with and overall average of 20,8 instead of 25 pupils per class as to be expected. In order to reach the targeted 9000 pupils per country, one needs 60 schools with an average of 7,7 active classes. This is somewhat an artificial calculation, as the country-specific average might be very different from the actual class size (and even school population size) of factual participating schools. However the present-day country specific information ***recommends to target schools with at least 7 or 8 active classes*** *(depending on country average) to be able to reach the targeted number of behaviour shifting pupils.*

Smaller **average home-school distance** than the original assumption would decrease potential output and causes a need to address more pupils and schools to remain the desire target of reduced car km. Vice versa with increased average distances.

The gathered country-specific data suggests an average home-school trip distance of 2 km of all pupils. Existing modal splits suggest pupils under average distance are predominantly the ones that walk and cycle already; hence the 'newcomers' that shift from car to more sustainable modes are typically the ones around and above average distance. The new country specific expected averages of the modal shift group have been calculated based on combined previous international CONNECT modal shift average home-school distance and country-specific average home-school distance. This provides a new project overall average of 2.2 km home-school trip distance for the group of modal shifters. Needless to say that this data surprises us as it differs 1/4 of what our initial assumptions include and this has a serious impact. However the new found data might be skewed as in many countries there is no real country-specific data but often only particle city-based data on average home-school distances. Home-school distances within cities might be smaller than real country-specific

average distances. Still, this present-day country specific information ***implies that in order to reach original desired average of saved car kilometres, the required model*** *of participating schools to reach becomes as follows:*

- *Aspired: 20 schools in year 1 + 20 schools from year 1 still playing and 5 more schools in year 2 (=25 active schools in year 2) + 25 schools from year 2 still playing and 10 more schools in year 3 (=35 active schools in year 3) (= 80 active schools in total over 3 years)*

This is clearly within the range between the original 'balanced' and 'cumulative' scenarios (see page 7, also see Figure 2). At the same time, if this new average km data would be correct, hence the updated 'aspired' scenario would be needed in order to reach the same project overall CPI targets. As such this scenario has been used to calculate country-specific targets.

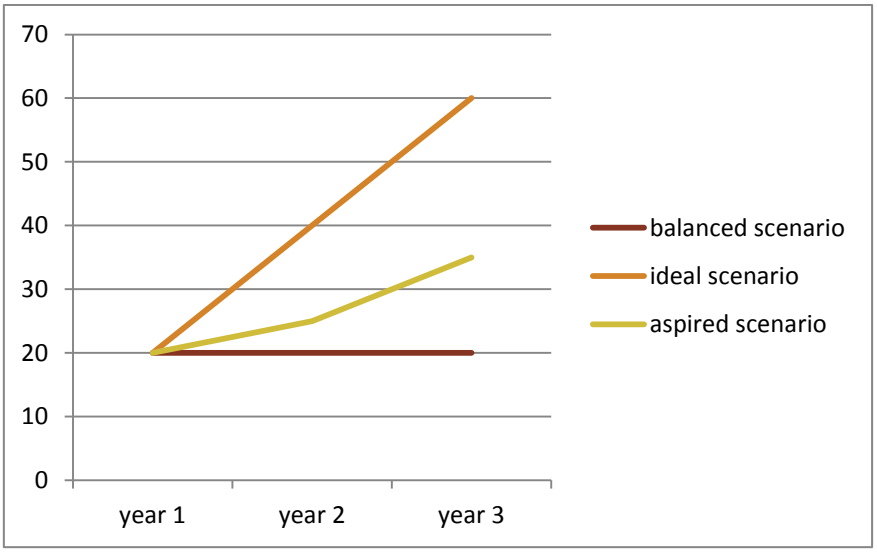

Figure 2: TSG Network scenarios
(x-axis = campaign years | y-axis = number of active schools)

Each partner was also asked if there was reason to diverge from other calculation aspects with national figures to adjust for the following indicators:

- Average fuel consumption per passenger/km for cars
- Average GHG emissions per km for cars
- Average PM emissions of particulate factors/km
- Average CO2 emission level per km travelled

The above data was be used to determine the updated CPI's with country-specific impact of the project. When no specific better data was available at national level, the existing assumptions were maintained or new calculated averages were used. Table 3 provides the project overview of updated calculations and expected CPI objectives with the country specific expectations. The blue marked sections identify anticipated contributions to EU 2020 targets within the action (yearly, total) and the target by 2020.

TSG Network - updated CPI (JUNE 2014)		2014 renewed overall	calculated average	2014 AT	2014 BE	2014 BG	2014 CZ	2014 FR	2014 DE	2014 EL	2014 HU	2014 IT	2014 LT	2014 MT	2014 NL	2014 PT	2014 RO	2014 SK	2014 SL	2014 ES	2014 UK
campaign																					
	countries *(orginal calculation was based on wrong number of 19 countries)*	18	n/a	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	annual campaign days 'during' (2 successive school weeks)	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	modal shift 'during'	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
	annual campaign days 'after' (3 successive school weeks)	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	modal shift 'after' (retention effect)	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
schools		per country	per country																		
	numbers of pupils targeted (yearly)	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167	3167
	average number of participating pupils per year per class	21	20,8	20	20	20	20	23	22	20	21	21	20	23	22	21	21	21	20	20	22
	needed number of participating classes per year per school	7	7,7	8	8	8	8	7	7	8	8	8	8	7	7	8	8	8	8	8	7
	average trip distance home-school all pupils	2,0	2,0	3,8	3,0	1,5	1,5	1,0	2,0	1,0	2,0	2,0	1,5	1,5	1,3	2,0	2,0	2,0	3,0	2,0	2,8
	average trip distance home-school group modal shifters	2,2	2,2	3,8	3,0	1,7	1,7	1,5	2,1	1,5	2,1	2,1	1,7	1,7	1,6	2,1	2,1	2,1	3,0	2,1	2,8
calculation factors																					
	l/km - average fuel consumption per person per km for cars	0,059	n/a	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,059	0,036	0,059	0,059
	gPM/KM - average PM emissions of participated factor per km	0,04	0,18	0,040	0,040	0,040	0,088	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,012	0,040	0,040	0,040	0,040	0,040	0,434
	kWh - kilowatt hours unit of energy	10,96	n/a	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96	10,96
	CO2e - carbon dioxide equivalent	0,266	n/a	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266	0,266
	Toe - tonne of oil equivalent	11,63	n/a	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63	11,63
equal spread of 20 schools per year		per country	all countries																		
	- number of active schools - year 1	20	360	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
	- number of active schools - year 2	25	450	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	- number of active schools - year 3	35	630	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
schools	total number of active schools - project lifespan	80	1460	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
	- number of participating classes - year 1	154	2780	160	160	160	160	140	140	160	160	160	160	140	140	160	160	160	160	160	140
	- number of participating classes - year 2	193	3475	200	200	200	200	175	175	200	200	200	200	175	175	200	200	200	200	200	175
	- number of participating classes - year 3	270	4865	280	280	280	280	245	245	280	280	280	280	245	245	280	280	280	280	280	245
classes	total number of active classes - project lifespan	618	11240	640	640	640	640	560	560	640	640	640	640	560	560	640	640	640	640	640	560
	- number of participating pupils - year 1	3210	57 776	3200	3152	3200	3200	3178	3066	3200	3424	3280	3200	3150	3136	3333	3333	3333	3200	3152	3038
	- number of participating pupils - year 2	4012	72 220	4000	3940	4000	4000	3973	3833	4000	4280	4100	4000	3938	3920	4167	4167	4167	4000	3940	3798
	- number of participating pupils - year 3	5617	101 108	5600	5516	5600	5600	5562	5366	5600	5992	5740	5600	5513	5488	5833	5833	5833	5600	5516	5317
pupils	total number of participating pupils - project lifespan	18000	234 104	12 800	12 608	12 800	12 800	12 712	12 264	12 800	13 696	13 120	12 800	12 600	12 544	13 333	13 333	13 333	12 800	12 608	12 152
	- km saved 'during' campaign - year 1	20 767	373 802	36 000	28 368	16 735	16 735	14 236	19 316	14 335	21 571	20 664	16 735	16 473	15 459	21 000	21 000	21 000	28 800	19 858	25 519
	- km saved 'during' campaign - year 2	25 958	467 253	45 000	35 460	20 918	20 918	17 795	24 145	17 918	26 964	25 830	20 918	20 591	19 324	26 250	26 250	26 250	36 000	24 822	31 899
	- km saved 'during' campaign - year 3	36 342	654 154	63 000	49 644	29 285	29 285	24 913	33 803	25 085	37 750	36 162	29 285	28 828	27 053	36 750	36 750	36 750	50 400	34 751	44 659
km	total amount of km saved 'during' campaign - project lifespan	83 067	1 495 208	144 000	113 472	66 938	66 938	56 944	77 263	57 338	86 285	82 656	66 938	65 892	61 836	84 000	84 000	84 000	115 200	79 430	102 077
	- km saved 'after' campaign - year 1	14 537	261 661	25 200	19 858	11 714	11 714	9 965	13 521	10 034	15 100	14 465	11 714	11 531	10 821	14 700	14 700	14 700	20 160	13 900	17 863
	- km saved 'after' campaign - year 2	18 171	327 077	31 500	24 822	14 643	14 643	12 456	16 901	12 543	18 875	18 081	14 643	14 414	13 527	18 375	18 375	18 375	25 200	17 375	22 329
	- km saved 'after' campaign - year 3	25 439	457 908	44 100	34 751	20 500	20 500	17 439	23 662	17 560	26 425	25 313	20 500	20 180	18 937	25 725	25 725	25 725	35 280	24 326	31 261
km	total amount of km saved 'after' campaign - project lifespan	58 147	1 065 546	100 800	79 430	46 857	46 857	39 861	54 084	40 137	60 399	57 859	46 857	46 125	43 285	58 800	58 800	58 800	80 640	55 601	71 454
	- km saved 'total' campaign - year 1	35 304	**635 464**	61 200	48 226	28 449	28 449	24 201	32 837	24 369	36 671	35 129	28 449	28 004	26 280	35 700	35 700	35 700	48 960	33 758	43 383
	- km saved 'total' campaign - year 2	44 129	794 329	76 500	60 282	35 561	35 561	30 251	41 046	30 461	45 839	43 911	35 561	35 005	32 850	44 625	44 625	44 625	61 200	42 197	54 228
	- km saved 'total' campaign - year 3	61 781	1 112 061	107 100	84 395	49 785	49 785	42 352	57 465	42 645	64 174	61 475	49 785	49 007	45 991	62 475	62 475	62 475	85 680	59 076	75 920
km	**reduction of car trips in km - project lifespan**	**141 214**	**2 541 854**	**244 800**	**192 902**	**113 795**	**113 795**	**96 805**	**131 347**	**97 475**	**146 684**	**140 515**	**113 795**	**112 017**	**105 122**	**142 800**	**142 800**	**142 800**	**195 840**	**135 032**	**173 531**
	target by 2020	**988 499**	**17 792 980**	**1 713 600**	**1 350 317**	**796 564**	**796 564**	**677 633**	**919 432**	**682 324**	**1 026 789**	**983 606**	**796 564**	**784 118**	**735 851**	**999 600**	**999 600**	**999 600**	**1 370 880**	**945 222**	**1 214 714**
	- liters fuel saved 'total' campaign - year 1	2 021	**36 378**	3 611	2 845	1 678	1 678	1 428	1 937	1 438	2 164	2 073	1 678	1 652	1 551	2 106	2 106	2 106	1 774	1 992	2 560
	- liters fuel saved 'total' campaign - year 2	2 526	45 473	4 514	3 557	2 098	2 098	1 785	2 422	1 797	2 704	2 591	2 098	2 065	1 938	2 633	2 633	2 633	2 218	2 490	3 199
	- liters fuel saved 'total' campaign - year 3	3 537	63 662	6 319	4 979	2 937	2 937	2 499	3 390	2 516	3 786	3 627	2 937	2 891	2 713	3 686	3 686	3 686	3 105	3 486	4 479
liter	**liters of fuel saved - project lifespan**	**8 234**	**148 220**	**14 443**	**11 381**	**6 714**	**6 714**	**5 711**	**7 749**	**5 751**	**8 654**	**8 290**	**6 714**	**6 609**	**6 202**	**8 425**	**8 425**	**8 425**	**7 097**	**7 967**	**10 238**
	target by 2020	**56 588**	**273 603**	**25 276**	**19 917**	**11 749**	**11 749**	**9 995**	**13 562**	**10 064**	**15 145**	**14 508**	**11 749**	**11 566**	**10 854**	**14 744**	**14 744**	**14 744**	**12 420**	**13 942**	**17 917**
	- equivalent in energy saved 'total' campaign - year 1	22 150	398 703	39 574	31 185	18 396	18 396	15 649	21 234	15 758	23 713	22 716	18 396	18 109	16 994	23 085	23 085	23 085	19 446	21 829	28 053
	- equivalent in energy saved 'total' campaign - year 2	27 688	498 379	49 468	38 981	22 995	22 995	19 562	26 542	19 697	29 641	28 395	22 995	22 636	21 242	28 856	28 856	28 856	24 308	27 287	35 066
	- equivalent in energy saved 'total' campaign - year 3	38 763	697 730	69 255	54 573	32 193	32 193	27 387	37 159	27 576	41 498	39 752	32 193	31 690	29 739	40 399	40 399	40 399	34 031	38 201	49 093
kWh	total equivalent in energy saved 'total' campaign - project lifespan	90 250	1 624 493	158 297	124 738	73 584	73 584	62 598	84 935	63 031	94 852	90 863	73 584	72 435	67 976	92 340	92 340	92 340	77 786	87 317	112 212
	target by 2020	620 205	2 998 687	277 021	218 292	128 773	128 773	109 546	148 635	110 305	165 991	159 010	128 773	126 761	118 958	161 595	161 595	161 595	136 125	152 805	196 371
	- equivalent in toe saved 'total' campaign - year 1	1 905	**34 282**	3 403	2 681	1 582	1 582	1 346	1 826	1 355	2 039	1 953	1 582	1 557	1 461	1 985	1 985	1 985	1 672	1 877	2 412
	- equivalent in toe saved 'total' campaign - year 2	2 381	42 853	4 253	3 352	1 977	1 977	1 682	2 282	1 694	2 549	2 441	1 977	1 946	1 827	2 481	2 481	2 481	2 090	2 346	3 015
	- equivalent in toe saved 'total' campaign - year 3	3 333	59 994	5 955	4 692	2 768	2 768	2 355	3 195	2 371	3 568	3 418	2 768	2 725	2 557	3 474	3 474	3 474	2 926	3 285	4 221
Toe	**primary energy savings - project lifespan**	**7 760**	**139 681**	**13 611**	**10 726**	**6 327**	**6 327**	**5 382**	**7 303**	**5 420**	**8 156**	**7 813**	**6 327**	**6 228**	**5 845**	**7 940**	**7 940**	**7 940**	**6 688**	**7 508**	**9 648**
	target by 2020	**53 328**	**257 841**	**23 819**	**18 770**	**11 072**	**11 072**	**9 419**	**12 780**	**9 484**	**14 273**	**13 672**	**11 072**	**10 899**	**10 229**	**13 895**	**13 895**	**13 895**	**11 705**	**13 139**	**16 885**
	- CO2 reduction 'total' campaign - year 1	6	106	10,5	8,3	4,9	4,9	4,2	5,6	4,2	6,3	6,0	4,9	4,8	4,5	6,1	6,1	6,1	5,2	5,8	7,5
	- CO2 reduction 'total' campaign - year 2	7	133	13,2	10,4	6,1	6,1	5,2	7,1	5,2	7,9	7,6	6,1	6,0	5,7	7,7	7,7	7,7	6,5	7,3	9,3
	- CO2 reduction 'total' campaign - year 3	10	186	18,4	14,5	8,6	8,6	7,3	9,9	7,3	11,0	10,6	8,6	8,4	7,9	10,7	10,7	10,7	9,1	10,2	13,1
t CO2e	**reduction of greenhouse gas emissions - project lifespan**	**24**	**432**	**42,1**	**33,2**	**19,6**	**19,6**	**16,7**	**22,6**	**16,8**	**25,2**	**24,2**	**19,6**	**19,3**	**18,1**	**24,6**	**24,6**	**24,6**	**20,7**	**23,2**	**29,8**
	target by 2020	**165**	**798**	**74**	**58**	**34**	**34**	**29**	**40**	**29**	**44**	**42**	**34**	**34**	**32**	**43**	**43**	**43**	**36**	**41**	**52**
	- PM reduction 'total' campaign - year 1	1 412	**25 419**	2 448	1 929	1 138	1 138	968	1 313	975	1 467	1 405	1 138	1 120	1 051	1 428	1 428	1 428	1 958	1 350	1 735
	- PM reduction 'total' campaign - year 2	1 765	31 773	3 060	2 411	1 422	1 422	1 210	1 642	1 218	1 834	1 756	1 422	1 400	1 314	1 785	1 785	1 785	2 448	1 688	2 169
	- PM reduction 'total' campaign - year 3	2 471	44 482	4 284	3 376	1 991	1 991	1 694	2 299	1 706	2 567	2 459	1 991	1 960	1 840	2 499	2 499	2 499	3 427	2 363	3 037
g PM	**reduction of PM emissions - project lifespan**	**5 751**	**103 510**	**9 792**	**7 716**	**4 552**	**4 552**	**3 872**	**5 254**	**3 899**	**5 867**	**5 621**	**4 552**	**4 481**	**4 205**	**5 712**	**5 712**	**5 712**	**7 834**	**5 401**	**6 941**
	target by 2020	**39 540**	**190 782**	**17 136**	**13 503**	**7 966**	**7 966**	**6 776**	**9 194**	**6 823**	**10 268**	**9 836**	**7 966**	**7 841**	**7 359**	**9 996**	**9 996**	**9 996**	**13 709**	**9 452**	**12 147**

Table 3: Updated TSG Network CPI based on 'aspired' scenario

4. Impact check

All assumptions and data are deemed legitimate by TSG Network partners based on available figures and previous experiences in CONNECT. Differences between and within countries are to be expected, and are currently existing in Table 3. Reality of the project will most likely identify other factual figures of class and school size, of participating pupils and of average home-school distance of actual participating schools.

The **annual campaign follow-up** will reveal country-specific as well as project overall real progress compared to the anticipated CPI projection. All schools will review their (national) baseline data and using this information they can set a target for the number of sustainable trips that are required to implement a successful campaign. Individual schools can set their own targets based on the results of their baseline data, combined with the number of classes taking part in the game and what they hope to achieve in terms of a modal shift towards more sustainable travel. The **intermediate annual results of the campaign will be used to advise NFP's on strategies to reach national targets, and the consortium to reach project overall targets.**

Results of the project will be compared with the results of similar school based projects, past and present, including CONNECT, BAMBINI, STARS and other IEE projects that encourage individuals to change their home-school travel behaviour.