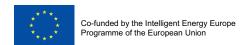


Interim review MEP

| Deliverable No. | 5.3 | | | | | |
|-----------------------------|--|--|--|--|--|--|
| Title | Interim Review (Monitoring and Evaluation Report for 2013-14) | | | | | |
| Work Package | WP5: Communication and Dissemination | | | | | |
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ABBREVIATIONS

BVL: Netherland's traffic education program for Primary schools

CC: Cycle Challenge

CPI: Common Performance Indicators

DOW: Description of Work

LoC: Letter of Commitment

HUS: Hands Up surveys

MEP: Monitoring and Evaluation Plan

PMG: Project Management Group meeting

PS: Primary schools

P2P: Peer to Peer

SS: Secondary schools or High schools

TfL: Transport for London

TT: Totally Traffic (Netherland's traffic education program for Secondary schools).

YTAS: Youth Travel Ambassadors Scheme



1. Introduction

1.1. What is STARS EUROPE?

STARS will deliver a behavioural change programme to increase the number of school students cycling and walking to and from school, who would previously have been escorted in the car. STARS focuses on delivering two proven initiatives, building on several on-going programmes:

- ★ The accreditation programme focuses on empowering primary schools (pupils, teachers and parents) to engage in cycling. It is different from many previous experiences because it focuses on the principle of recognition. Schools can work their way up an awards scale from a bronze to a gold star accreditation, based on how much they are doing to promote cycling (and other active modes) and the mode shift they achieve.
- ★ Peer-to-peer engagement activities specifically target secondary school adolescent students (11-19 years). They will be encouraged to devise their own campaigns to promote cycling and walking, thereby using their own ideas and solutions to persuade their peers.

The overall aim of STARS is to take the tried and tested behaviour change approaches of accreditation and peer-to-peer engagement, and deliver it in a trans-national programme to achieve a modal shift away from the car to cycling and active modes for the journey to and from school.

1.2. What is the STARS Evaluation Plan?

The Monitoring and Evaluation Plan aim to explain the tasks for all partners to collect the necessary data and inputs from schools to monitor implementation of the project. The MEP has been completed with first baseline input from implementation cities in January 2014. Evaluation reports merge, analyse and summarise the information collected from implementation partners in two periods: end of 2013-14 (Interim Review) and end of project (Final Evaluation Report).

1.3 Interim review of Monitoring and Evaluation Plan

This report contains a summary of the evaluation activities carried out in the nine cities participating in the STARS EUROPE project along the school year 2013-14. Surveys about the travel behaviour of students and staff, presenting modal share data and distances home-school in all the schools participating in this project have been collected for the majority of the schools involved in the project.

Baseline results have been obtained in most of the schools engaged, in different timelines:

In cities like Krakow and Madrid, where the period of engaging the schools was prepared just in the beginning of the project, baseline data was collected in the last term of 2013, and a second survey implemented in May-June 2014, providing data for measuring the impact of STARS in 61 primary and secondary schools during the 2013-14 school year.



- In cities like Hackney-London, Edinburgh and Brussels, where this project follows previous plans already in place, some of the surveys have been carried out continuing the past formats. In exceptional cases, baseline results of pre-STARS evaluation carried out under previous initiatives with the same targets were used.
- Several cities, in which the recruitment of schools has been more difficult, delayed the surveys until the end of 2013-14 academic years. In Bielefeld, Budapest and the Noord Brabant region, this late surveying has been focused only in getting baseline data, omitting the first results survey. Milan completed two surveys in SS in February and June 2015.

In the original planning of the STARS project, defined by the MEP, this deliverable was foreseen as a synthesis of the baseline plus first results evaluation of STARS implementation in 71 Primary schools and 39 secondary schools in year 2013-14. The schools surveyed in the beginning of STARS have been 64 Primary schools and 31 Secondary schools, a slightly reduced number, as the start of the project in most of the cities and the school recruitment processes was slower than foreseen.

The goal of this common delivery is to explain the real development of data collection, the concrete appraisal of evaluation concepts, the first results in the early implemented measures and other comments on the process and the appropriateness of the evaluation methods. These issues will be also addressed in the co-operative work of school champions, local Advisors and city co-ordinators. It is also a document to share the results of the project during the first year with all the partners, monitoring the wide range of activities developed in the nine participating cities.

The document includes four chapters after this introduction:

- 1. General information about STARS EUROPE project and its main objectives and methodologies,
- 2. A summary of the monitoring and evaluation processes in each of the STARS cities for Primary schools, with a partial estimation of the STARS impact on the urban mobility and an assessment of the foreseen results. It includes status tables city-by-city with all the schools participating in the first complete school year, including a short synthesis of the implementation and first results.
- 3. A summary of the monitoring and evaluation processes in each of the STARS cities for Secondary schools with the same level of information defined in Primary.
- 4. A summary of the 360° project collaborative review in the fourth project meeting organised in Bielefeld.

1.4. STARS EUROPE Consortium

| Part. N° | Participant name | Short name | Country code | Main role in the Consortium** | | | | |
|-------------|------------------|------------|--------------|--|--|--|--|--|
| CO1 | London Councils | LEPT | UK | Coordinator, WP1 and WP7 leader | | | | |
| CB2 | Mobiel 21 | Mobiel 21 | BE | WP2 leader, technical expertise, WP4 implementation in Brussels Capital region | | | | |



| СВ3 | DTV Consultants | DTV | NL | WP4 leader, technical expertise in school mobility and cycling |
|------|---|------------------|----|---|
| CB4 | City of Bielefeld | Bielefeld | DE | Implementation partner |
| CB5 | BKK Centre for Budapest Transport | BKK | HU | Implementation partner |
| CB6 | City of Edinburgh Council | Edinburgh | UK | Implementation partner |
| CB7 | London Borough of Hackney | Hackney | UK | Implementation partner |
| CB8 | Municipality of Krakow | Krakow | PL | Implementation partner |
| CB9 | Madrid City Council | Madrid | ES | Implementation partner |
| CB10 | GEA 21 | GEA 21 | ES | Technical expertise, implementation support for CB9, WP5 leader |
| CB11 | City of Milan | Milan | IT | Implementation partner |
| CB12 | Province of Noord Brabant | North Brabant | NL | Implementation partner, expert in accreditation and road safety, WP3 leader |
| CB13 | POLIS | POLIS | BE | Communication expertise, WP6 leader, EU level dissemination. |

Acknowledgements to co-authors

Many thanks to those partners in the implementation sites for their continuing commitment to this project, and for providing the information, reflections and insights that form the basis of this evaluation. The collaborative team in cities that has been in charge of the data collection and complementary analysis and assessment is composed by:

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BRUSSELS: Marjan Frederix, Sarah Martens and Wim Billet (Mobiel 21)

BUDAPEST: Melinda Hartung and Ákos Burghardt (BKK)

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NOORD BRABANT: Ronald Soemers and Monica Weber



2. **STARS** in figures 2013-14

9 European cities and regions involved

75 Primary schools with 28.970 students and more than 3.200 teachers

More than 2.300 activities developed during the first year

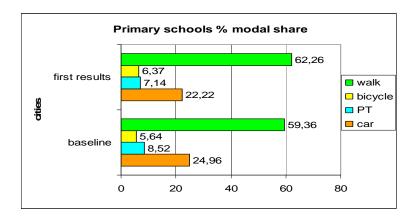
8 schools obtained the Gold accreditation

9 schools obtained Silver level

31 schools obtained Bronze level

(64% of the total number of schools 2013-14)

Modal shift between baseline and first results (STARS Primary schools – year 2013-2014)



- Change from car to active modes: -2,7 points, from 24.96% to 22.22%
- Change from PT to active modes: **-1,4 points**, from 8.52% to 7.14%

150 ton CO₂e saved by 75 Primary STARS schools in 2013-14

496,234 km shifted from **car** to active modes (125 ton CO₂e saved) plus **249,928 km** shifted from **public transport** to active modes (25 ton CO₂e saved)



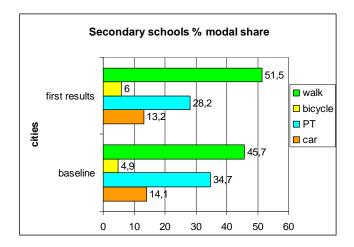
39 secondary schools with 25.683 students and more than 1.000 teachers

350 Youth Travel Ambassadors promoting peer-to-peer activities

252 activities developed, around 9 activities per school a year

Modal shift between baseline and first results surveys

(STARS Secondary schools – year 2014-2015)



- Change from car to active modes: -0.9 points, from 14.1% to 13.2%
- Change from PT to active modes: -6.5 points, from 34.7% to 28.2%

276 ton CO₂e saved by 39 Primary STARS schools in 2013-14

281,292 km shifted from **car** to active modes (71 ton CO2e saved) plus **2,031,556 km** shifted from **Public Transport** to active modes (205 ton CO2e saved)

If we continue reducing motorised school journeys in 2014-15 with the same progress than in 2013-14, extrapolating these data to the number of STARS schools targeted, the foreseen results are:

In Primary (car to active modes shift): 360 t CO_{2e}/year and In Secondary 870 t CO_{2e} per year.

954 ton CO₂e saved **by all STARS schools in a year**A 41% of the project objective



3. STARS Evaluation and Monitoring Review in Primary schools

3.1 Implementation in Primary schools so far

During the first year, the STARS team and specially the eight implementation cities offering school accreditation established structures to support the project. Recruited schools, assisted by the city advisors, developed implementation plans, adapted the project tasks and goals to their own aims and background.

The level of school and pupil engagement with the project and STARS activities has been high. The STARS method has been contrasted in real processes with reasonable results, as this report shows in the following chapters.

The table below provides data to explain the overall development of the project and the achievement of evaluation targets in STARS schools:

Table 1: Comparison targets / Primary schools participating 2013-14

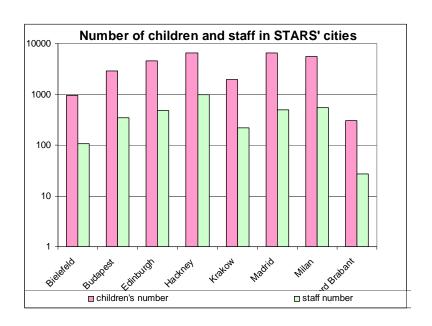
| Partner | Schools targeted in STARS Phase 1 (2013/2014) | Schools involved STARS Phase 1 (2013/2014) | % covered | Number of students | Number of staff | |
|---------------|---|--|-----------|--------------------|-----------------|--|
| Bielefeld | 8 | 4 | 50% | 953 | +107 | |
| Budapest | 6 | 6 | 100% | 2,865 | 343 | |
| Edinburgh | 8 | 13 | 162% | 4,524 | 478 | |
| Hackney | 13 | 19 | 146% | 6,502 | 990 | |
| Krakow | 6 | 6 | 100% | 1,972 | 222 | |
| Madrid | 10 | 13 | 130% | 6,314 | 489 | |
| Milan | 10 | 12 | 120% | 5,535 | +544 | |
| North Brabant | 10 | 2 | 20% | 305 | 27 | |
| Total | 71 | 75 | 106% | 28,970 | + 3.200 | |

Font: Data from Project Library, collected from implementation partners. In staff column: not all the schools have provided the number of teachers and school workers, so the real figures are higher than written.

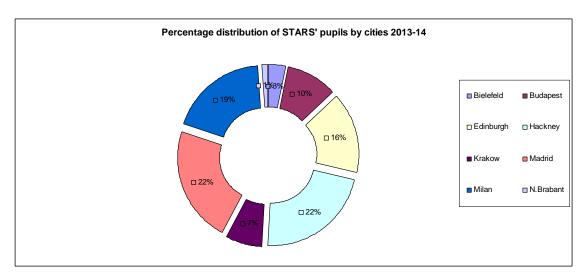


The project reached more than 32,170 people travelling to schools daily in 2013-14, more than 90% being pupils from 4¹ to 14 years old and a complementary 10% of teachers and other school staff.

Illustration 1: Number and percentage distribution of Primary pupils and staff in STARS' cities (2013-14)



The target of recruiting at least 71 Primary Schools in the first school year has been achieved, adding reserve schools in the early recruitment cities, and lowering the involvement of schools in the cities where the situation has presented more difficulties with recruitment.



¹ In Edinburgh, Hackney and Madrid, some schools with Nursery have developed STARS activities with smaller children.



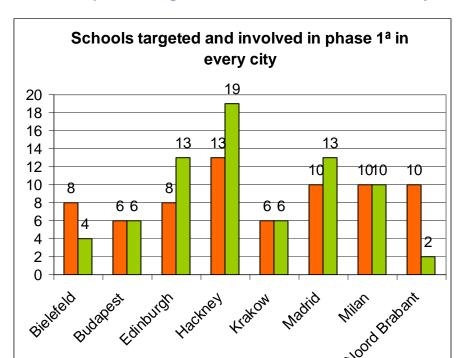


Illustration 2: Comparison targets and schools involved 2013-14 by cities

The average size of schools was overestimated in the first approach before the project started, in DoW initial estimations. For CPI data, the average size of school was defined in 1,000 students. The actual data collected shows that the average size differs from country to country, but can be estimated in **401**² **pupils/school** as an average for all STARS Primary schools. The average figure for staff per school is 41.

■ involved

Table 2: Average school size and staff/school by STARS city partner

targeted

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N. Brabant | Average |
|--------------------------|-----------|----------|-----------|---------|--------|--------|-------|------------|---------|
| N of pupils per school | 306 | 478 | 348 | 359 | 329 | 501 | 461 | 153 | 401 |
| N of staff per school | 36 | 57 | 40 | 54 | 37 | 38 | 25 | 14 | 41 |

² The figures from two schools in North Brabant have not been included in this average, as these are small, specialised schools.

_



a) Accreditation scheme developed

Every school has built a team in their school, coached by an Advisor with expertise in sustainable mobility and education and led by a Champion teacher. These teams are tasked with organising activities, meetings, workshops, fora, etc. throughout the year with the aim of developing awareness on sustainable mobility issues and promoting change of school journeys from car towards active modes, with a focus on cycling where the conditions and distance make it possible.

STARS schools are responsible for delivering the following documents to the STARS team through the Advisor:

- 1. School background analysis
- 2. Letter of Commitment (LoC)
- 3. Hands Up Survey baseline for students (HUS)
- 4. Travel Behaviour Survey staff
- 5. Accreditation Audit Report
- 6. Hand Up Surveys first results (HUS)
- 7. Process questionnaire

Table 3: Delivery of STARS documents (Website or Project Library)

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Total |
|---------------------------------------|-----------|----------|-----------|---------|--------|--------|--------------------|-----------|-------|
| City Background | yes | yes | yes | yes | yes | yes | yes | yes | 8/8 |
| School background | 3/4 | 6/6 | 9/13 | 13/19 | 6/6 | 13/13 | 10/12 | 2/2 | 62/73 |
| LoC | 3/4 | 6/6 | 10/13 | 16/19 | 6/6 | 13/13 | 11/12 ³ | 2/2 | 67/73 |
| HUS baseline | 3/4 | 6/6 | 12/13 | 19/19 | 6/6 | 13/13 | 11/12 | 2/2 | 70/73 |
| Travel behaviour baseline staff | 2/4 | 2/6 | 1/13 | 16/19 | 6/6 | 11/13 | 2/12 | 2/2 | 42/73 |
| Accreditation Audit | 3/4 | 6/6 | 10*/13 | 17/19 | 6/6 | 13/13 | 7/12 | 2/2 | 64/73 |
| HUS First | 0/4 | 5/6 | 3/13 | 16/19 | 6/6 | 12/13 | 1/12 | 1/2 | 31/73 |

³ In Google Drive there are only 9 Milan LoC, there are several schools comprised under the same Istituto Comprensivo, with only one signature.



| results | | | | | | | | | |
|------------------------|-----|-----|------|-------|-----|-------|------|-----|-------|
| Process questionnaires | 0/4 | 5/6 | 0/13 | 14/19 | 6/6 | 13/13 | 7/12 | 2/2 | 47/73 |

^{*} Only local Implementation Plan

It has been difficult for most of the schools to survey twice in a school year, as was planned in the Monitoring and Evaluation Plan. In Bielefeld at PMG4, this issue was discussed in the 360° review⁴ of the project, concluding that it was a better option to survey the schools only twice, at the beginning and the end of the project. Cities like Madrid, Budapest or Milan where the second survey was already done, are the main font for analysing the impact of the project in 2013-14.

The most interesting outputs for understanding the level of implementation of STARS EUROPE in 2013-14 are the number of activities developed in the schools in 2013-14, and also the schools teams in charge of the planning and organisation of these activities. The involvement of other collaborators or external stakeholders has emerged as a key factor for the implementation of STARS in schools. There is a need for culture change that has to be supported by more than one Champion in each school.

b) Stakeholders involvement

Table 4: Local STARS team composition (plus Advisor)

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant |
|----------------|-----------|----------|-----------|---------|--------|--------|-------|-----------|
| Average number | 1 | 3 | 4 | 5 | 4 | 11 | 2 | 4 |

A large group of STARS collaborators' has been found in the schools, in the families and in the 'active modes' associations. It has been the key to develop the many activities carried out by the project in this first phase.

In Hackney, Krakow, Milan, Noord Brabant and Madrid, STARS school teams involve head teachers and/or deputy teachers, more than one Champion teacher, parents, students and volunteers. In Bielefeld and Budapest, tasks are developed solely by the Head teacher and Champion teacher. The project needs to ensure the collaboration of parents and voluntary organisations to achieve the targets envisaged.

The number of activities is also an output to highlight. The Accreditation Audit online or in the STARS internal Project Library show the large number of actions developed by cities and by schools that are the key of the success of the project.

1

⁴ More detail in chapter 5 of this report.



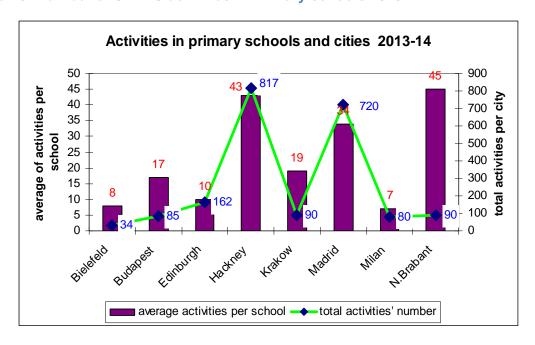
The number of actions is generally related to the quicker or slower start of the cities in the first phase. In the cities⁵ where recruitment has been more difficult, schools haven't had sufficient time to explore the wide range of activities of STARS EUROPE. Bielefeld, Budapest, Milan and N. Brabant (with only two schools in 2013-14) show a limited amount of activities.

Table 5: Average number of STARS activities school year 2013-14

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | TOTAL |
|---------------------|-----------|----------|-----------|---------|--------|--------|-------|-----------|-------|
| A.number/ school | 9 | 17 | 10 | 43 | 19 | 54 | 7 | 45 | 41 |
| Total number | 34 | 85 | 162 | 817 | 90 | 720 | 80 | 90 | 2,393 |

The total number of activities organised along the school year and summarised in the Accreditation Audit documents is 2,393. The number of activities is low in the cities where STARS EUROPE started in spring 2014 and generally higher in the cities with many schools with pre-existing programmes and/or an early recruitment.

Illustration 3: Number of STARS activities In Primary schools 2013-14



At the end of the 2013/14 school year, 31 schools obtained Bronze level, 11 Silver and 6 more (only in Hackney, a London district with a long background in STARS UK) received the Gold accreditation.

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⁵ See more information about the process of recruitment of schools in D.3.1 (WP3) and in the Prologue of this document.

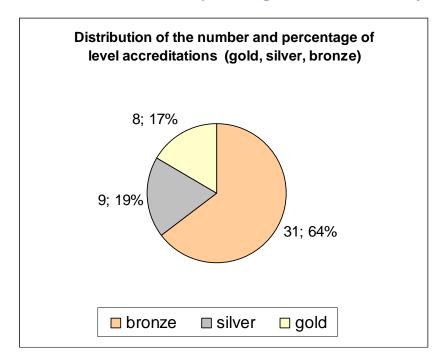


Table 6: Accredited schools in school year 2013-14

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N. Brabant | TOTAL |
|--------|-----------|----------|-----------|---------|--------|--------|-------|------------|-------|
| Bronze | 2 | 3 | 4 | 6 | 6 | 7 | 1 | 2 | 31 |
| Silver | - | | | 4 | - | 5 | - | | 9 |
| Gold | - | | | 8 | - | - | - | | 8 |

Despite the difficulties in the initial recruitment in part of STARS cities, **48 Primary schools** achieved the aims planned for this first phase (a 64% of the total number of schools 2013-14).

Illustration 4: Number and percentage of Accreditations by level 2013-14





3.2 Evaluation baseline and first results in Primary schools

Baseline data

This interim report evaluates the first year of implementation and early indications of its impact in student's modal share. The data obtained in the second surveys provide a useful basis for identifying the potential of STARS EUROPE to change behaviour in school trips towards active mobility.

A final report of the evaluation including all the detailed analysis of the collected data will be available at the end of the project (March 2016).

Baseline surveys for Primary schools have covered a 73% of STARS students (21,291 pupils) in eight STARS cities and 70 STARS schools. Baseline surveys have been carried out in the first term of 2013 in Edinburgh, Hackney, Krakow and Madrid. Another group of cities, with Bielefeld, Budapest, Milan and N. Brabant conducted surveys in the first quarter of 2014.

The data collected by cities shows the current mode of travel to school:

Table 7: STARS Baseline data for Primary schools 2013-14

| | CAR | PUBLIC TRANSPORT | BICYCLE | WALK | Other | Total | ACTIVE MODES |
|-----------------------------|--------|---------------------|---------|--------|-------|-------|-----------------|
| All 8 cities (74% surveyed) | 24.96% | 8.52% | 5.64% | 59,36% | 1.51% | 100% | 65,01% |

First results data

First results surveys were carried out in May-June or September 2014, depending on the baseline date. They have collected data from 41% of total of students, coming from the schools of Hackney, Edinburgh, Krakow and Madrid show excellent progress after 2013-14 implementations:

Table 8: First results data for Primary schools 2013-14

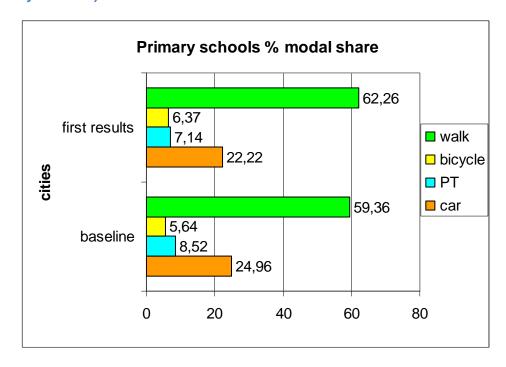
| | CAR | PUBLIC TRANSPORT | BICYCLE | WALK | Other | Total | ACTIVE MODES |
|----------------|--------|---------------------|---------|--------|-------|-------|-----------------|
| 4 cities | 22.22% | 7.14% | 6.37% | 62.26% | 2.01% | 100% | 68.63% |
| (41% surveyed) | | | | | | | |

Car related modes have fallen in 2.7 points or a 10.8%, Public transport has reduced by 1.4 percentage points or a 16% decrease.

Active modes attracted more students, growing 3.62 percentage points (from 65.01% to 68.63%), divided into an increment of 2.9 percentage points in walking, reaching 62.26% of journeys by foot (or skating), and 0.7 percentage points growth of cyclists to 6.58% of the modal share. Cycling increased its share by 12%.



Illustration 5: Changes in modal share 2013-14 between baseline and first results surveys (STARS Primary schools)



The distance between home and school is a determinant in this change. Madrid and Hackney share a common characteristic that the distances to school are smaller relative to other cities (the average distance for the whole project is **1.6 km** between home and school).

Table 9: Average distance in km home/school and total km/day per city In Primary schools

| | Bielefeld | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N. Brabant |
|---------------------------------|-----------|----------|------------------|---------|--------|--------|--------|------------------|
| Average distance km/pupil | 1.40 | 2.61 | 2.8 ⁶ | 0.92 | 2.86 | 1.31 | 0.95 | 1.3 ⁷ |
| Tot km | 2,668 | 14,938 | 25,334 | 11,925 | 11,268 | 17,051 | 10,550 | 1,586 |

The total number of km of all STARS students is **95.319** km/day. Based on 190 school-days a year, the total figure per year is **18,110,704** km/year⁸.

⁷ National average Netherlands

⁶ National average UK

⁸ This figure includes two travels a day per pupil in all cities but N. Brabant schools that usually have to cover 4 trips (children eat at home and come back to the school in the afternoon).



3.3 Impact of the accreditation scheme / IEE CPI indicator

Data collated for the estimation of CPI indicator in Primary are the following:

- Average number of pupils per school: 401
- Total number of km per year in 75 schools: 18,110,704 km

A) Shift car to active modes

- Change from car to active modes: -2,7 points, from 24.96% to 22.22%
- Car journeys avoided: 4,520,432 4,024,198= 496,234 km car shifted to active modes
- CO2 conversion factor per km in an average car: 0.252 kg CO2e/km⁹
- Per year: 125 ton CO2e saved in shift Car_Active modes

B) Shift PT to Active Modes

- Change from PT to active modes: -1,4 points, from 8.52% to 7.14%
- PT travels avoided: 1,543,032 1,293,104= 249,928 km PT shifted to active modes
- CO2e conversion factor per km in urban PT: 0.101 kg CO2e /km¹⁰
- Per year: 25 ton CO2e saved in shift PT_Active modes

Total: 150 ton CO2e saved/year by 75 Primary STARS schools in a year.

Extrapolation to the target number (180) of Primary schools in 2014-15 is the following:

• Per year: 360 ton CO2e saved

Summing the two years of project, Phase 1 with 75 schools and Phase 2 with 180 Primary schools, savings in ton CO2e are:

S = 150 + 360 = 510 ton CO2e saved

⁹ ECF (2011) Quantifying theCO2 savings from cycling.10 ECF (2011) Quantifying theCO2 savings from cycling.



4. STARS Evaluation and Monitoring Review in Secondary schools

4.1 Implementation in Secondary schools so far

STARS implementation in Secondary focused on the involvement of schools, and specifically, of Youth Travel Ambassadors (YTAs), groups of teenagers with enough leadership to develop communication and awareness campaigns from a Peer-to-Peer approach with their school colleagues. Despite the fact that all case studies recognise that the task to involve schools has been more difficult, the high level of commitment of STARS cities has been fruitful, and the targets have been closely addressed.

SECONDARY SCHOOLS ACCREDITATION

The level of implementation of the project is good. The method has been contrasted in real processes with reasonable results.

Table 10: Comparison targets /Secondary schools participating 2013-14

| Implementation partner | Schools targeted in STARS Phase 1 (2013/2014) | Schools involved STARS Phase 1 (2013/2014) | % covered | Number of students | Number of staff |
|------------------------|---|--|-----------|--------------------|-----------------|
| Bielefeld | 3 | 3 | 100% | 2,727 | 213 |
| Brussels | 5 | 3 | 60% | 1,881 | 130 |
| Budapest | 3 | 3 | 100% | 1,708 | 302 |
| Edinburgh | 5 | 7 | 140% | 5,122 | |
| Hackney | 5 | 4 | 80% | 2,570 | +314 |
| Krakow | 3 | 3 | 100% | 1,709 | 119 |
| Madrid | 5 | 6 | 120% | 4,715 | |
| Milan | 5 | 8 | 100% | 5,183 | |
| Noord Brabant | 5 | 2 | 40% | 68 | |
| Total | 39 | 39 | 110% | 25,683 | +1,078 |



The project has addressed directly more than **26,761** school travellers, students from 11 to 18 years old (depending on the countries' education protocols) plus the correspondent teachers and other school staff in 2013/14. These figures represent the whole school, as we are not sure in this case about the penetration of STARS approach to all the classes (night and day attendance, different study lines, big centres, etc.)

The target of involving 39 Secondary Schools in the first year has been achieved at 100%.

The average size of schools was also too high in the initial calculation, at 1,000 students. The actual data collected shows that the average size differs from country to country, but can be roughly fixed in **817** pupils per school. But there are large differences between different schools in the same city (private and public, etc.).

Table 11: Average school size by STARS city partner

| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Average |
|--------------------|-----------|----------|----------|-----------|---------|--------------------|--------|-------|-----------|---------|
| Number of students | 909 | 627 | 569 | 732 | 643 | 1700 ¹¹ | 793 | 648 | - | 817 |

Every school has built a team in their school, coached by an Advisor with expertise in sustainable mobility and education and led by a Champion teacher. The school team has worked with a team of teenagers able to develop activities and campaigns with autonomy to implement the project in schools. The YTAs are in charge of the design and organisation of the activities to increase awareness about sustainable mobility and, specifically to encourage their peers to shift towards active modes and to participate in the Cycle Challenge.

STARS schools are responsible for delivering the following documents to the STARS team through the Advisor:

- School background analysis
- Letter of Commitment LoC
- Hands Up Survey baseline for students HUS
- Case Study / process questionnaire
- Hand Up Surveys first results HUS

Table 12: Delivery of STARS documents (Project Library)

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 $^{^{\}rm 11}\,$ This figure is provided directly by Krakow City .



| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | |
|----------------------|-----------|----------|----------|-----------|---------|--------|--------|-------|-----------|-------|
| City Background | yes | yes | yes | yes | yes | yes | yes | yes | yes | 9/9 |
| School background | 3/3 | 3/3 | 3/3 | 5/7 | 4/5 | 3/3 | 6/6 | 8/8 | 0/2 | 35/39 |
| LoC | 3/3 | 3/3 | 3/3 | 0/7 | 4/5 | 3/3 | 6/6 | 6/8 | 2/2 | 24/39 |
| HUS baseline | 2/3 | 3/3 | 0/3 | 7/7 | 4/5 | 3/3 | 6/6 | 6/8 | 0/2 | 31/39 |
| HUS First results | 0/4 | 0/2 | 5/6 | 1/7 | 2/5 | 3/3 | 4/6 | 6/8 | 0/2 | 21/39 |
| Case study | 3/3 | 3/3 | 3/3 | 2/7 | 4/5 | 3/3 | 6/6 | 6/8 | 2/2 | 33/39 |

^{*} Only local Implementation Plan

It has been difficult for most of the schools to carry out two surveys within an academic year, as it was planned in the Monitoring and Evaluation Plan. In Bielefeld PMG4, this issue was discussed in the 360° review of the project, concluding that a better option was to survey the schools only twice, at the beginning and the end of the project. Cities like Madrid, Milan or Hackney, where the second survey was already done, are the main tool for analysing the impact of the project in 2013-14.

A team of YTAs has been working in every STARS school. The figures about these teams are:

Table 13: Number of YTAS in STARS cities

| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Total |
|-------------|-----------|----------|----------|-----------|---------|--------|--------|-------|-----------|-------|
| N. of YTAS | 15 | 20 | 9 | 6 | 64 | 21 | 26 | 180 | 9 | 350 |
| YTAS/school | 8 | 7 | 3 | 3 | 16 | 10 | 5 | 23 | 5 | 9 |

A total of **350** YTAS have been promoting the project during 2013-14. In Brussels, Budapest, Madrid and Krakow, some common activities have been prepared to work out a real network between them al with shared activities, workshops and training in communication.

Cycle Challenge participation

Table 14: Number of participants in Cycle Challenge May-June 2014



| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Total |
|----------------|-----------|----------|----------|-----------|---------|------------------|--------|-------|-----------|-------|
| N. of cyclists | 6 | 45 | 11 | 6 | 17 | 91 ¹² | 43 | 62 | 42 | 323 |
| N. of schools | 1 | 3 | 2 | 2 | 2 | 3 | 4 | 6 | 2 | 27 |

Font: DTV records and Krakow own data

In Bielefeld, the students, and also teachers and parents, decided to take part in another cycling challenge, similar to the STARS CC, called Stadtradeln and competing with other German cities. A STARS school has won in this alternative competition attaining the first rank of schools in Germany.

It is more difficult to audit the activities accomplished in Secondary, but the following table summarises the data found in some case studies in part of STARS cities.

Activities implemented in the schools

The total number of activities organised along the school year is not easy to estimate, as the information is based only in the case study reports and local implementation plans. A rough idea of the rhythm in several cities is given in the following summary table.

Table 15: Activities in schools 2013-14

| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Total |
|----------------------------------|-----------|----------|----------|-----------|---------|--------|--------|-------|-----------|-------|
| N. of activities | 34 | - | 15 | - | 59 | 24 | 74 | 37 | 9 | 252 |
| Average number activities/school | 11 | - | 5 | - | 19 | 8 | 12 | 9 | 5 | 9 |

Font: Case studies, action plans and process questionnaires of 9 implementation cities uploaded in Project library.

4.2. Evaluation baseline and first results in Secondary

This Interim Report evaluates the first year of implementation and early indications of its impact in student's modal share. The data obtained in the second surveys provide a useful basis for identifying the potential of STARS EUROPE in the change of behaviour in school trips towards active mobility. A final report of the evaluation including all the detailed analysis of the collected data will be available at the end of the project (March 2016).

Baseline surveys for Secondary schools have covered a 64% of STARS students (16,562 pupils) in the nine STARS cities and 31 STARS schools.



According the data collected by cities, the overall results of the current mode travel employed to go to school are:

Table 16: Baseline data 2013-14

| | CAR | PUBLIC TRANSPORT | BICYCLE | WALK | Other | Total | ACTIVE MODES |
|----------------|-------|---------------------|---------|-------|-------|-------|-----------------|
| 7 cities | 14.1% | 34.7% | 4.9% | 45.7% | 0.6% | 100% | 50.6% |
| (65% surveyed) | | | | | | | |

First results surveys were carried out in June or September 2014, depending on the baseline date. They have collected data from 31% of total students. Data coming from the schools of Hackney, Edinburgh, Madrid and Milan show good overall progress after 2013-14 implementation:

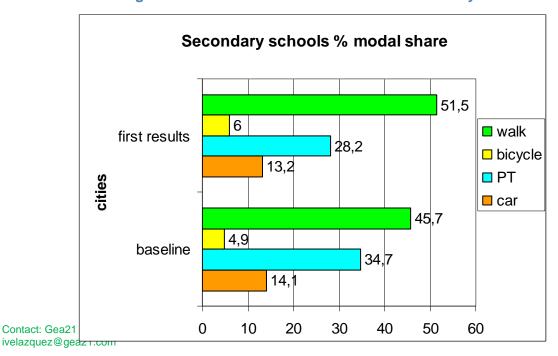
Table 17: First results data 2013-14

| | CAR | PUBLIC TRANSPORT | BICYCLE | WALK | Other | Total | ACTIVE MODES |
|----------------|-------|---------------------|---------|-------|-------|-------|-----------------|
| 4 cities | 13.2% | 28.2% | 6.0% | 51.5% | 1.1% | 100% | 57.5% |
| (21% surveyed) | | | | | | | |

Public transport has fallen by 6.5 percentage points and car-related modes by 0.9 percentage points or a 6.4% decrease.

Active modes attracted 6.9 percentage points more students to 57.5% of travels, divided into an increment of 5.8 points in the travels for journeys on foot (or skating), and a 1.1 percentage point or a 22% increase of new cyclists.

Illustration 6: Changes in modal share 2013-14 in STARS Secondary schools



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Madrid and Hackney are the cities where the distance home-school is lower, around 2 km. The rest of cities surveyed in this issue are between 3 and 5km.

Table 18: Average distance home school and total number of km/day

| | Bielefeld | Brussels | Budapest | Edinburgh | Hackney | Krakow | Madrid | Milan | N.Brabant | Total |
|-----------------------------|-----------|----------|----------|-----------|---------|--------|--------|--------|-----------|---------|
| Km/pupil home- school | 4.6 | 4,4 | - | - | 2.2 | 4.4 | 2.0 | 2.3 | - | 3.2 |
| School trip in km/day | 25,154 | 16,737 | 10,921 | 32,750 | 11,298 | 15,058 | 19,017 | 24,153 | 435 | 164,498 |

The average distance for the whole project can be estimated at 3,2 km per student. So, the total distance for 25,727 STARS students is 164,498 km per day or 31.254,620 km per year

4.3. Impact of the Peer to Peer scheme / IEE CPI indicator

Data collated for the first estimation of CPI indicator in Primary are the following:

Average number of pupils/school: 817

Total number of km/year in 39 schools: 31,254,703 km

- Change from PT to active modes: -6.5 points, from 34.7% to 28.2%
- PT travels saved: 10,845,382 km 8,813,826 km = 2,031,556 km/year in PT shifted to active modes
- CO2 conversion factor per km in average PT: 0.101kg CO2km¹²

Total CO2e saved: 205 ton CO2e/year in 39 STARS schools from PT to active modes.

- Change from car to active modes: -0.9 points, from 14.1% to 13.2%
- Car travels saved: 4,406,913 km 4,125,621 km= 281,292 km

¹² ECF (2011) Quantifying the CO2 savings from cycling.



CO2 conversion factor per km in an average car: 0.252 kg CO2km¹³

Total CO2e saved: 71 ton CO2e/year in 39 STARS schools.

 Year 2013-14: 205 t CO2 saved in shift PT/active modes + 71 t CO2 saved in shift car/active modes = 276 t CO2/year

Extrapolation to the target number of Secondary schools (84) is the following:

Per year: 594 t CO2 saved in Secondary schools.

The CO2 savings estimated for all STARS EUROPE Primary+Secondary schools in a school year, according the partial first results of this interim report should be:

Primary savings (car to active modes shift): 360 t CO2/year

Secondary savings (mainly PT to active modes shift): 594 t CO2/year

Total estimated: 954 t CO2/year¹⁴, a 41/38%¹⁵ of the target of STARS EUROPE, with the progress achieved in this initial year.

Total estimated savings, summing 2013-14 and 2014-15 with the same results would be:

510 ton of CO_{2e} in Secondary plus **870** ton of CO_{2e} in Secondary=

1380 T CO_{2e} in two years of implementation of STARS EUROPE.

This figure is conservative as:

- The project will probably improve its results in the second year of implementation.
- Several cities will continue its implementation in 2015-16, complementing the European Funds with their own co-funding.

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¹³ ECF (2011) Quantifying the CO2 savings from cycling.

¹⁴ DOW proposes a minimum target of 2,328/2,416 t CO2/year, assuming that schools average size was 1,000 students and average distance home-school was 5km/trip. Cycle Challenge attendance was assumed in 6,048 students.

¹⁵ There are two figures different in pages 4 and 14 of contract.



5. 360° degrees evaluation

• WP5_Task 5.3.2: Conduct 360° evaluation of internal project team performance

Initially, it was planned to conduct a 360° degrees evaluation to form the basis of the lessons learnt review in the first year and to facilitate a performance evaluation exercise for the consortium twice within the project timeline.

This exercise, initially planned as an online survey in July 2014, has been substituted by a collective workshop, organised by GEA21 during PMG4 in Bielefeld (in July 2014), where all partners were present (23 people in total), using participative tools and face to face discussions.

The object of the review has been the project itself, at the middle point of the project. Several issues were assessed, including the role of the different partners and stakeholders in all the tasks to do, the communication patterns, the work and implementation indicators and the relationship between the coordinators and the rest of the project. All the suggestions and conclusions of this shared review were collected in the wall, and a summary has been sent to all assistants to ask for precisions or late/ forgotten contributions. The feedback has been used to improve the process of implementing the project for all their actors. Some decisions have been taken just after this review, and the general impression about the method and its results has been good, according the participants' reactions after this exercise. Other issues are in the basis of the changes integrated in the next phase of common work.



In the following table, an overview of main conclusions is summarised for this report:



| WP | Issues debated | Decisions after review | | | | |
|-----|--|---|--|--|--|--|
| WP1 | Communication and interchange tools, better planned and focused: time-keeping and prioritising of issues addressed. Transparency in reporting and decision- | MTCs limited: information by email, only to discuss major topics. Priority to cities' information. Agenda more specific and possibility to prepare contents. | | | | |
| | making Legacy: business cases, need of | PMGs in two working days: minutes and presentations available. | | | | |
| | examples, need of a Legacy Plan on a national basis. | Feedback of Coordination meetings in Brussels and main decisions made. | | | | |
| | Consortium: good exchange of ideas and consistent commitment from partners. Nice atmosphere in the project!. | Next phase: Launch of a Legacy Plan, including a strategy for cities Early Adopters (2014-15) and Cities/schools Followers (from 2016 and | | | | |
| | Indicators should include active modes. Different cultures and infrastructures' level | onwards). Good timing needed, July 14 is too early, but acting too late is a guarantee of failure. | | | | |
| | in STARS cities. | Need to reshape the objectives and goals of the whole project. | | | | |
| | Objectives in DOW, somehow unrealistics. | | | | | |
| WP2 | Guidance manual content's are well prepared and useful documents. Overlap | Simplification of Annexes and procedure for 2014- 15. Add FAQs. Guidances integration in the Web. | | | | |
| | of Annexes. Time stress ate the end of the school | All activities programmed one and a half month before end of school year. | | | | |
| | year. Toolkits late for this school year. | Toolkit: Working examples, including costs. Practical for Advisors as an index of options. | | | | |
| | Flexibility in criteria. | List of co-authors. | | | | |
| | Suppot of Advisors is essential to encourage schools to carry out activities. | Diverse approaches: better knowledge transfer between cities. | | | | |
| | Local workshops: a useful tool. | New approach: local workshops potential as a tool for school are networking. Regular bimonthly meetings following project' implementation. Communication between schools of the same city and at European level. | | | | |
| WP3 | Difficulties for engaging schools, without clear incentives for them. | Experience from the first year is positive, as leverage for getting the critical mass of second | | | | |
| | Teachers are not paid for their administrative collaboration. | year. Simplification of tasks for teachers, predominant | | | | |
| | Accreditation website delayed and non totally coherent with Guidances | role of Advisors in reporting, and coaching teachers in Internet use. | | | | |
| | (background, distances, surveys dating). Difficulties in three cities to use | Recognition/reward for Champions: i.e an | | | | |



| | on-line tools. Slow performance. | European Accreditation for them. |
|-----|---|--|
| | Need of a better scoring/weighting of | Accreditation website might be printable |
| | actions between small an big actions, or initial and continuous activities. | Better cross-curriculum integration of activities as key point for long term effect of the project. Need to measure the quality and scope of activities: i.e class activities, grade activities, whole school and even neighbourhood activities. |
| WP4 | YTAs method well received by schools: learning outcomes about subjects not typically covered by schools. | Difficult to find really active students and the time to meet with them. Better with a real group of friends. |
| | Difficult process of login for CC: non friendly tools. No Manual. Delays. CC is not an evaluation tool. More gamification. | Complementary off-line tool. |
| | | CC: an issue to be discussed before CC 14-15. |
| | | Many improvements to be defined. |
| | CC; including walking and leisure trips. | Walking has been included in CC. |
| | No results to communicate: CC website | Better design and new registration method. |
| | is not accessible from outside. | |
| WP5 | Results on-line only for certain schools and offline only for others. | Duplication of channels remains necessary. |
| | | Schools carry out surveys, Advisors upload them. |
| | Too detailed mobility survey: outcome interesting but too much workload and confusion for small children. | Simplification of surveys for the second year. |
| | | Simplification of Evaluation Plan. Only before and |
| | Clear calendar of all data collection at start of the year. | after surveys. In part, a consequence of the late involvement of schools in some cities. |
| | Measurement of all shifts (not only carbicycle). | |
| WP6 | A Web more attractive, richer, less institutional. More appealing for teachers | Check if teachers and students are following STARS tools. Focus on 3 main channels and make them really work well. |
| | and students. Easy channels for uploading photos and | |
| | videos. | More information about 'early adopters', 'followers' |
| | Stop Linkedin. Set up local blogs on European website (in local languages) | and other projects. |
| | <u> </u> | <u> </u> |

Most of the suggestions placed in the third column have been implemented just after Bielefeld PGM or along the first term of 2014-15.



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