D2.2: WalkingBus Manual

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Abstract

This is the WalkingBus D2.2: WalkingBus Manual.

The purpose of this deliverable is to develop an indicative, generic, and integrated walking bus manual after reviewing the existing literature and other walking bus manuals worldwide. It will include information from the routes' planning co-creation workshops of the WalkingBus project in Greece, Italy, and Türkiye.

Indeed, in D2.2, a comprehensive literature review of the scientific literature and a review of the most significant walking bus manuals from all over the world, e.g., USA, Canada, UK, Ireland, and New Zealand, took place. This led to a proposed indicative structure of a walking bus manual (presented in Annex A) and a generic, integrated, indicative walking bus manual (presented in Annex B).

Finally, information and the results from the WalkingBus project routes' planning co-creation workshops in Greece, Italy, and Türkiye, are presented.

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Acronyms

AI	Artificial Intelligence
AL	Alabama
CA	California
CCAC	Centre of Creative Activities for Children
CDC	Centers for Disease Control and Prevention
CET	Central European Time
EACEA	European Education and Culture Executive Agency
FAQ	Frequently Asked Questions
KOTI	Korea Transport Institute
MO	Missouri
NGO	Non-Governmental Organization
NM	New Mexico
OSM	Open Street Maps
PCA	Principal Component Analysis
TAMC	Transportation Agency for Monterey County
TX	Texas
UK	United Kingdom
USA	United States of America
WA	Washington
WPI	Worcester Polytechnic Institute
WSB	Walking School Bus

1 Introduction

In this WalkingBus deliverable D2.2: WalkingBus Manual, the WalkingBus consortium had to develop an indicative walking bus manual and describe the WalkingBus project route planning co-creation workshops in Greece, Italy, and r in a deliverable of 30 pages.

For this reason, a comprehensive literature review of the scientific literature and a review of the most significant walking bus manuals from all over the world, e.g., USA, Canada, UK, Ireland, and New Zealand, took place. This led to a proposed indicative structure of a walking bus manual (presented in Annex A) and a generic, integrated, indicative walking bus manual (presented in Annex B).

Moreover, information and the results from the WalkingBus project routes' planning co-creation workshops in Greece, Italy, and Türkiye, are presented.

The structure of the deliverable is as follows:

- In Chapter 2, the literature review of the scientific literature is presented.
- In Chapter 3, the review of the walking bus manuals is presented.
- In Chapter 4, the information and results of the co-creation workshops are presented.
- In Annex A, an indicative walking bus manual structure is presented.
- In Annex B, an indicative walking bus manual is presented.

There is no separate discussion and conclusions chapter in D2.2, as each discussion and conclusions are included in the respective chapters, as the approach in D2.2 was modular.

2 Literature Review

2.1 Initial investigation and approach of the literature review

This chapter reviews the scientific literature on walking buses, focusing on walking bus manuals. The literature survey was conducted with the use of the Scopus (n.d.) scientific literature indexing service.

The first attempt was made by searching within "Article title, Abstract, Keywords" the keyword "walkingbus." No result was found.

The second attempt was made by searching within "Article title, Abstract, Keywords" the string "'walking bus'" (i.e., within quotes), and 15 papers were found. After a review of their titles, it was found that no paper focused on walking buses but on related issues such as public transportation and walking.

The third attempt was made by searching within "Article title "the string "'walking bus'" (i.e., within quotes), and four (4) papers were found. All the papers were relevant and focused on walking buses, as expected.

Since the third attempt was made with the use of quotes, another search should take place, i.e., with the string "'walking school bus'" (WSB) (i.e., within quotes), as this is another commonly used name for walking buses. Indeed, 43 papers were found! All the papers were relevant and focused on walking buses, as expected. Still, these were not few, and to reduce the number, the search was limited to journal articles; 36 papers were found. The same approach was followed for the four (4) papers of the string "'walking bus'" of which three (3) papers were journal articles.

The same search within "Article title" was conducted with the strings "'walking school bus' AND manual" and "'walking bus' AND manual," but no paper was found in either case. This was expected, as manuals are usually technical reports rather than scientific papers.

Therefore, the literature review that will follow will be based on these 36 + 3 = 39 papers, which are all journal articles.

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2.2 Results of the literature review

The first mention of walking buses or WSBs in the title of papers is seen in 2003. Mackett et al. (2003) proposed a methodology for evaluating walking buses as an instrument of urban transport policy, focusing on schools in the United Kingdom (UK). In the same year, Kearns et al. (2003) reported on the development of the WSB initiative and its adoption at a primary school in Auckland, New Zealand, and concluded that walking buses are an ambivalent response to motorized transport.

In 2004, Rossi et al (2004) described the walking bus proposed by the Local Health Service of Lecco, Italy, a project called Piedibus. The authors found that 91.4% of participating students liked the walking bus very much, and 87.4% of them preferred to go to school by the Piedibus than by any other means!

In 2005, Collins and Kearns (2005) found that the ability to respond to road accidents in walking buses in Auckland, New Zealand, is closely correlated with socioeconomic privilege. Moreover, Kingham and Ussher (2005) found that the WSBs initiative in Christchurch, New Zealand was suffering a significant decline due to a lack of volunteers and insufficient support from the school or Council.

In 2006, Johnston et al. (2006) evaluated a WSB program in central Seattle, Washington (WA), United States of America (USA), and Tepas III (2006) commented on their evaluation.

In 2007, Kingham and Ussher (2007) assessed the benefits of WSBs in Christchurch, New Zealand and found that they have many social benefits and that they encourage children's independent mobility. Paquette (2007) mentions that the walking bus concept was designed and implemented in 1998, in St. Albans, UK, due to parental concerns over speeding automobiles and children's safety, based on Kearns et al. (2003).

While there is no relevant article published in 2008, in 2009, there were four (4) of them! Heelan et al. (2009) found that the school-wide prevalence of walking to school frequently was 27% higher in the walking bus schools than in their control school. Mendoza et al. (2007) found that after a WSB intervention, in the 12-month follow-up period, the number of students that walked to the school increased by 25%±2% and, therefore, such interventions for urban, low-income elementary school students may promote favorable changes toward active transport to school.

Kong et al. (2007) found that conducting a WSB in an urban, underserved school district is feasible but requires attention to ensure participants' involvement and safety after an experiment in Albuquerque, New Mexico (NM), USA. Moodie et al. (2009) used a logic pathway to model the effects on body mass index and disability-adjusted life years of the Victorian WSB program if applied throughout Australia; cost offsets and disability-adjusted life years' benefits were modeled until the eligible cohort reached 100 years of age or death, and they found that under their modeling assumptions, the program was not an effective or cost-effective measure to reduce childhood obesity.

In 2010, Collins et al. (2010) conducted a longitudinal assessment of WSBs in Auckland, New Zealand, and they found a sustained growth in the number of routes and in levels of participation, although activity remained concentrated in the wealthiest neighborhoods, while parents found four main benefits: i) the sense of community, ii) opportunity for exercise/health promotion, iii) reduction in car use and local congestion, and iv) reduced injury risk for child pedestrians. Kong et al. (2010) describe a pilot application of a walking bus to prevent obesity in Hispanic elementary school children in NM, USA.

In 2011, Mendoza et al. (2011) conducted a pilot cluster randomized controlled trial among 4th-graders from eight (8) schools in Houston, Texas (TX), USA, and they found that the trial children increased active commuting from 23.8%±9.2% (time 1) to 54%±9.2% (time 2), while control group children decreased from active commuting from 40.2%±8.9% (time 1) to 32.6%±8.9% (time 2), i.e., the program improved children's active commuting to school and daily moderate-to-vigorous physical activity.

In 2012, Mendoza et al. (2012) used mixed model analyses that yielded that WSB trial children had 5-fold higher odds of crossing at the corner/crosswalk but 5-fold lower odds of stopping at the curb in Huston, TX, USA. Sayers et al. (2012) found that children in WSB programs in Columbia, Missouri (MO), USA, showed no differences in moderate to vigorous physical activity compared to children not participating in the programs.

In 2013, Turner et al. (2013), through mail-back surveys throughout the USA, found that 4.2% of schools organized a WSB program during 2008−2009, increasing to 6.2% by 2009−2010. Such programs were not common, but district policies and state laws were associated with an increased likelihood of elementary schools organizing these WSBs.

In 2014, Oreskovic et al. (2014) found that the built environment plays a role in active school commuting outcomes and daily physical activity, a finding that agrees with previous findings that WSBs have better results in wealthier areas.

In 2015, Baker et al. (2015), in a short communication article, reported the findings from a pilot application of a WSB in Birmingham, Alabama (AL), USA, in which they found that walking buses promote physical activity and weight loss among the walking bus users, and that weight loss was even more pronounced for black participants! Smith et al. (2015) reviewed 12 WSBs involving a total of 9,169 children and found that preliminary evidence of the health value of WSBs was demonstrated, along with recommendations for the design of future studies. By tackling barriers of time constraints, volunteer recruitment, and parents' safety concerns while at the same time, increasing convenience and time savings for families, future WSBs are likely to be more sustainable and taken up by more schools.

In 2016, Toffol et al. (2016) conducted a questionnaire survey in seven (7) elementary schools of three different municipalities in the province of Treviso, Italy, in which 1,165 students participated, and they found that WSB projects are a simple and cost-effective method for increasing the number of children actively commuting to school.

While there is no relevant article published in 2017, in 2018, there were three (3) of them! Godillon & Cloutier (2018) analyzed the differences in perceptions of road risk between parents and children at the beginning of their involvement in Trottibus, the WSB program in Quebec, Canada. The authors conducted a web-based survey in which 189 parents and their children participated. The results showed a greater sense of safety for children when walking in a pedestrian-friendly space and a greater confidence in other road users' respect for pedestrians. According to parents, the Trottibus has educational benefits in terms of pedestrian mobility. Children and parents highlighted the social aspects of this program as being outstanding. Pérez-Martín et al. (2018) evaluated a WSB service in Córdoba, Spain. The authors found a high recurrence in the children's participation, and 43.7% of the participants had completely or partially changed transportation modes. The families reported fewer problems in the children's daily school travel organization and an improvement in their pedestrian safety behaviors. Further, 92.1% of the participating families had less concern about their children's autonomous walking. The use of a mobile app can reduce parents' concerns and facilitate the management and evaluation of the WSB.

Dirk et al. (2018), after a WSB study in Auckland, New Zealand, found that children's exposure to air pollution could be significantly reduced by choosing routes on the less congested side of the road. Data from portable pollution monitors during a 25-minute commute showed lower mean exposures and fewer peaks in pollution on the quieter side, suggesting that WSB route planning should consider traffic congestion direction to improve air quality for pedestrians.

In 2019, Teller et al. (2019) conducted a qualitative study on a WSB program in Seattle, WA, USA, which revealed that parents recognize its benefits for children's health and safety. Despite time constraints being a barrier, the program received overall positive feedback for promoting exercise and providing positive adult interaction. Suggestions for improvement included enhanced recruitment, logistical adjustments, and better communication among parents. Nikitas et al. (2018) conducted a study on WSBs in Bradford, UK, which highlighted the role of parental perception in adopting sustainable travel for schoolchildren. The research identified six key themes—logistics, safety, trust, health, emotional needs, and educational opportunities—that influence parents' decisions; addressing these areas could enhance the effectiveness and appeal of WSBs as a sustainable commuting option. Hansmann & Martonffy (2019) found that the Safe Routes to School walking bus program in the USA may increase the physical activity of participating children with many positive results.

In 2020, Pigalle (2020) analyzed the Lausanne, Switzerland, WSB initiative, supported by volunteer parents, through a questionnaire survey of 218 participants. The study used Principal Component Analysis (PCA) to categorize parents into five (5) clusters based on their travel habits and attitudes towards WSBs, ranging from activist to indifferent or motorist-focused, underscoring the importance of social factors in fostering collective commitment to sustainable school travel programs. Johnston (2020) examined the impact of scaffolded writing assignments on undergraduates' understanding of the USA K–12 public education system's inequalities. Through a Sociology of Education course, students engaged with elementary school children, leading to authentic relationships and a reduction in power differentials in the frame of WSBs. The study suggests that such community-engaged learning can foster a deeper awareness and commitment to social change.

Carlson et al. (2020) conducted a survey of 184 WSB programs which revealed that those in low-income areas with multiple route leaders and school or district coordination showed higher student participation and sustainability. Frequent trips were linked to improved student punctuality, reduced bullying, and better walkability. The study emphasized the importance of leadership roles and evidence-based strategies for the successful implementation of WSBs to boost children's physical activity. Scharoun Benson et al. (2020) conducted a pilot study in Northeastern Ontario, Canada, on a WSB program that highlighted its potential to increase physical activity among Canadian children. The study identified health, social, and safety benefits, despite concerns about distance and environmental factors. It concluded that sustained efforts and addressing various ecological levels are crucial for the success of active transportation initiatives.

In 2021, Tresoldi et al. (2021) studied a walking bus service design that introduced a home pick-up system, addressing the challenges posed by limited chaperones and route deviations. The research proposed innovative models and heuristics, validated by real-case scenarios from an Italian primary school, to optimize the traditional walking bus framework for better efficiency and practicality. Cramer et al. (2021) conducted a cluster randomized controlled trial across 22 elementary schools in Houston, TX, and Seattle, WA, USA, examining the impact of a WSB program on self-efficacy and outcome expectations among students and parents. The study found significant improvements in both child and parent self-efficacy and outcome expectations, supporting the WSB role in promoting active commuting to school.

In 2022, Hayes et al. (2022) applied a decision analysis model in Bradford, UK, and identified zones where WSBs could effectively increase walking, considering health, environmental, and social factors. The study's method is adaptable and can guide the implementation of WSBs in various urban settings to enhance children's health and community engagement. Kang & Diao (2022) conducted a study on WSBs that demonstrated their viability in low-density suburban areas, with spatial analysis indicating that a 20% student participation rate is sufficient to form a WSB. Additionally, 40% of parents surveyed were inclined to permit their children to walk to school if accompanied by a friend, highlighting the social and communal support for WSBs.

In 2023, Wang et al. (2023) introduced a multi-objective optimization model for WSB route planning, incorporating time, air quality, and walkability to enhance the benefits of walking to school. Applied to a Bradford, UK school, the model successfully created efficient WSB routes, demonstrating its adaptability for widespread use in improving children's safety, health, and enjoyment on their way to school. Agyeman et al. (2023) conducted a systematic review of 49 papers to assess WSBs and bicycle trains, highlighting their role in promoting active school travel and reducing urban pollution. It revealed a research gap in algorithms and policy frameworks, especially in the Global South, and called for improved optimization studies and infrastructure to support these sustainable transport modes for children.

2.3 Discussion and conclusions of the literature review

For the literature review, it seems that there are several journal articles on walking buses, ranging from case studies to methodologies on how to set up a walking bus, its impacts, and reviews. Nevertheless, it has to be underlined that it seems that there are several papers that refer to a specific case study from the same authors on different aspects of a walking bus or a specific program of walking buses. On one hand, this is positive because there are case studies that have been studied in depth, but on the other hand, the problem is that it seems that walking buses have not yet been established as a field in which there is much potential for scientific research as a discrete scientific field. Probably, this will change over time, and this will be something positive for the promotion of the concept of walking buses as an established practice all over the world.

3 Walking Bus Manuals Review

3.1 Initial investigation and approach of review of walking bus manuals

In this chapter, a review of existing walking bus manuals will take place in order to form a basis for the manual of the WalkingBus project.

A Google search with the following string “walking bus manual” (in quotes) returned four (4) results. These were two (2) couples of links.

The first couple referred to a Bachelor thesis (Rios et al., 2017) in which a walking bus manual is included in Appendix Q.

The other couple are two annexes of the Oxfordshire County Council Sustainable School Travel Strategy 2008-2011 (Oxfordshire County Council, n.d.a, n.d.b), in which a walking bus manual was developed within the Strategy but is not included in the annexes.

A Google search with the following string “walking school bus manual” (in quotes) returned nine (9) results.

In the first link, there is a reference that “A 33 page Walking School Bus Manual from Rochester, Minnesota schools includes an equipment checklist (reflective safety vests, walkie-talkies and pedometers) and creative names for each walk-day (Marvelous Moving Mondays, Talk and Trek Tuesdays, Wild Walking Wednesdays and so on).” (Steward, 2012a).

The second link is about a Walking School Bus Walk Leader job vacancy call by the Society for Children and Youth of British Columbia, in which there is a reference that “Following our Walking School Bus Manual and Materials, the Walk Leader will be responsible for leading a group of children to and from school each day along a dedicated route” (Society for Children and Youth of British Columbia, 2023) but the manual was not available on the link.

The third link is the 6th section of the Geelong, Victoria, Australia WSB manual with the title “Recruiting and retaining passengers and volunteers” from Victoria, Australia, but the whole manual was not available on the link (VicHealth, n.d.).

The fourth link is another article by Steward (2012b), the investigative director for the Freedom Foundation of Minnesota, who claims that there is no need for funding WSBs as this was the common way for students to commute to and from school for decades without any funding.

The fifth link is an invitation for a Zoom meeting of the Bicycle and Pedestrian Facilities Advisory Committee of the Monterey [California (CA), USA] County Regional Development Impact Fee Joint Powers Agency (Transportation Agency for Monterey County [TAMC], 2021). In the invitation there is a reference that "Much of the Every Child grant work is dependent upon school sites re-opening and in-person engagement. Despite the challenges brought by the global pandemic, TAMC, Health Department and Ecology Action partners were able to continue implementing the grant in 2020. The team provided bike and pedestrian safety education, drafted designs for traffic gardens, developed a walking school bus manual and materials and held a series of bicycle repair workshops in Greenfield." (Transportation Agency for Monterey County [TAMC], 2021), but the manual was not available on the link.

The sixth link is the 19th Issue of the publication of the Korea Transport Institute (KOTI) Korea's Best Practices in the Transport Sector, Citizen participation in transport planning: its history and achievements (Lim et al., 2015). In the publication there is a reference to walking buses with general guidelines, including the necessity of a walking bus manual (Lim et al., 2015), but there was no specific walking bus manual.

The seventh and ninth links are job vacancies on the Indeed website, but no connection to walking buses was found (Indeed, n.d.a).

The eighth link is the Annual Report 2017/2018 of the Education Labour Relation Council (ELRC), Centurion, South Africa, in which there is a reference to an employer who developed "developed a draft Walking School Bus Manual" (ELRC, 2019).

It seems that the described approach was not the best way to find walking bus manuals. Therefore, open Google searches and help from Artificial Intelligence (AI) tools will be used to find the best walking bus manuals, which will be described in the following section. For example, from the previous findings, deep Google searches will take place, and suggestions will be used from AI tools.

3.2 Results of the Walking Bus Manual Review

3.2.1 Step by Step: How to Start a Walking School Bus at Your School, USA

Step by Step: How to Start a Walking School Bus at Your School (Figure 3-1) is a toolkit on how to develop walking school buses by the California Department of Public Health in the frame of the Safe Routes to School National Partnership (Safe Routes to School National Partnership & California Department of Health, 2016).

The "Walking School Bus" (WSB) manual provides comprehensive guidance for schools and communities to establish a safe and engaging way for children to walk to school. The manual outlines a step-by-step approach to planning, implementing, and managing a WSB, which aims to improve students' health, enhance community engagement, and reduce environmental impact (Safe Routes to School National Partnership & California Department of Health, 2016). The main points of the manual follow:

- The key steps in developing a WSB program are the following (Safe Routes to School National Partnership & California Department of Health, 2016):
    1. Getting Started: Identify core team members, including school staff, parents, and community stakeholders. Define the scope and objectives of the WSB, including route planning and program structure.
    2. Planning Your Route: Select safe and accessible routes, designate stops, and schedule timings. Utilize tools like walkability assessments to ensure safety and accessibility.
    3. Recruiting and Training Leaders: Engage volunteers to lead the WSBs and provide them with necessary training on safety protocols, emergency procedures, and student management.
    4. Promoting the Program: Use school announcements, community meetings, and social media to raise awareness and encourage student and volunteer participation.
    5. Launching and Running the Program: Start the program with clear guidelines and support from the school administration. Regularly monitor and adjust the program based on feedback and logistical needs.

6. Evaluating and Adjusting: Continuously assess the program's effectiveness and make necessary adjustments to improve safety, participation, and overall impact (Safe Routes to School National Partnership & California Department of Health, 2016).

- The benefits of the WSB program are the following (Safe Routes to School National Partnership & California Department of Health, 2016):
  1. Enhances students' physical health and readiness to learn.
  2. Increases safety and reduces traffic congestion around schools.
  3. Fosters a sense of community through active participation.
  4. Contributes to environmental sustainability by reducing vehicular emissions (Safe Routes to School National Partnership & California Department of Health, 2016).

The WSB program serves as a valuable initiative for schools looking to promote active transportation, improve student health, and build stronger community ties. By following the guidelines provided in the manual, schools can effectively implement a successful WSB program that benefits students, families, and the broader community (Safe Routes to School National Partnership & California Department of Health, 2016).

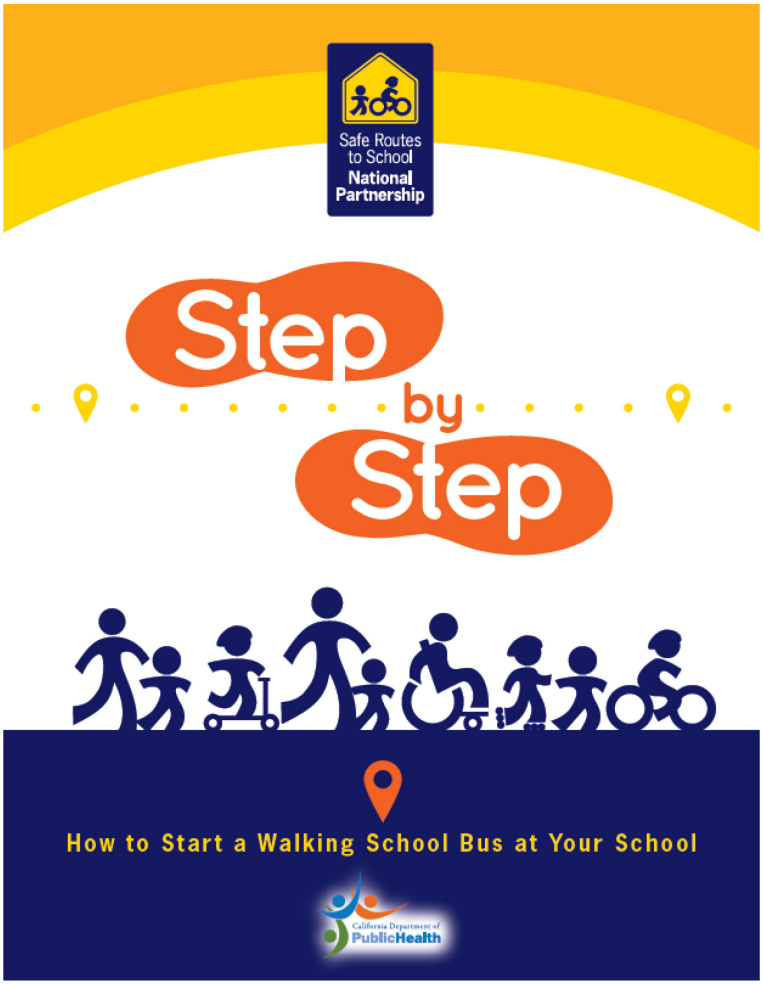


Figure 3-1: The front page of the Step by Step: How to Start a Walking School Bus at your School manual (Safe Routes to School National Partnership & California Department of Health, 2016).

3.2.2 Five Step Guide to Walking School Bus, USA

Five Step Guide to Walking School Bus (Figure 3-2) is a manual on how to create walking buses in five simple steps by the National Center for Safe Routes to School (2021a) after the Safe Routes to School National Partnership mentioned in the previous section. Your Guide to Starting Your Community Project (2021b) is a complement to the National Center for Safe Routes to School (2021a).

The Five Step Guide to Walking School Bus manual (National Center for Safe Routes to School, 2021a) provides a comprehensive guide to setting up a WSB in local communities, aiming to offer a healthier, safer, and more enjoyable commute to school for children. This initiative involves groups of children walking to school with adult supervision, fostering community engagement, enhancing children's safety, and promoting physical activity.

- Its key features are the following (National Center for Safe Routes to School, 2021a):
    1. Introduction to Walking School Bus: The manual defines a WSB as a group of children walking to school under the supervision of rotating volunteers, typically parents. This model addresses safety concerns that prevent parents from allowing their children to walk to school by providing adult supervision.
    2. Importance and Benefits: The decline in children walking to school has coincided with a rise in childhood obesity. The WSB addresses this by encouraging physical activity, which is safe, fun, and environmentally friendly. Benefits include improved fitness, traffic reduction, and enhanced alertness in children.
    3. Implementation Steps:
        i. Step 1: Community Engagement: Initiate interest through community outreach and assess the level of support among parents, school administrators, and local businesses.
        ii. Step 2: Planning and Organization: Develop routes based on safety and convenience, recruit volunteers, and arrange meeting points and schedules.
        iii. Step 3: Execution: Establish clear roles for volunteers, set schedules, and communicate effectively to ensure smooth operations.
        iv. Step 4: Monitoring and Adaptation: Regularly assess the program's effectiveness and make adjustments as needed.
    4. Support Resources: The guide includes contact information for further support from ChangeX, offering assistance through calls and emails to help communities start their WSB.
- Safety and Community Impact: This section emphasizes the safety features of the chosen routes and their positive impact on community health and environmental sustainability (National Center for Safe Routes to School, 2021a).

The WSB program manual not only guides communities through the practical steps of setting up a walking school bus but also underscores the broader benefits of such initiatives, including reduced traffic, increased child safety, and improved public health. By implementing a WSB, communities can foster a sustainable and active lifestyle for children, making school commutes both enjoyable and beneficial (National Center for Safe Routes to School, 2021a).

Figure 3-2: The front page of the Five Step Guide to Walking School Bus manual (National Center for Safe Routes to School, 2021a).

Your Guide to Starting Your Community Project (Figure 3-3) (National Center for Safe Routes to School, 2021b) is a complement designed to equip individuals with the necessary tools and knowledge to initiate and sustain community-oriented projects. This manual outlines a structured approach to community engagement and project implementation, emphasizing the importance of collaboration, planning, and ongoing support.

- Its key elements are the following (National Center for Safe Routes to School, 2021b):
    1. Project Initiation: The guide begins with the "30 Day Challenge," a foundational step aimed at building momentum and establishing a solid base for the project. This includes forming a team, setting up initial meetings, and engaging potential project supporters through social media and local networks.
    2. Planning and Execution: A detailed five-step guide helps organizers understand the specifics of starting and maintaining a community project. Critical actions include scheduling a call with a ChangeX team member to understand project guidelines and setting up a casual kick-off meeting to brainstorm and finalize an action plan.
    3. Community Engagement: Strategies for engaging community members are thoroughly explored. Organizers are encouraged to use personal networks, local community centers, and online platforms to gather support and interest. The manual emphasizes the contagious nature of enthusiasm and the importance of personal connection in building a robust community project.
    4. Funding and Resources: The manual details the process for unlocking funding, which involves completing set challenges and sharing project impacts. This includes uploading team photos and detailed plans for using the funds, which after review, would result in the transfer of the initial funding.
    5. Sustainability and Impact: The guide stresses the importance of starting and sustaining community projects. Organizers are prompted to share their initiatives' impact through updates and photos, which helps unlock further funding and sustain the project long-term (National Center for Safe Routes to School, 2021b).

The manual serves as an essential resource for anyone looking to initiate a community project, providing a clear roadmap from conception to execution. It encourages organizers to be proactive, engaged, and persistent in their efforts to create sustainable, connected, and impactful community projects. This approach not only fosters community development but also empowers individuals to contribute meaningfully to their local environments (National Center for Safe Routes to School, 2021b).

Figure 3-3: The front page of the Your Guide to Starting Your Community Project manual (National Center for Safe Routes to School, 2021b).

3.2.3 Starting a Walking School Bus: the Basics, USA

Starting a Walking School Bus: the Basics (Figure 3-4) is a WSB manual in the form of a two-page leaflet, once again by the National Center for Safe Routes to School (n.d.). It is an initiative aimed at addressing the decreasing trend of children walking or biking to school, a situation linked to rising childhood obesity rates. The concept involves groups of children walking to school with adult supervision, providing a simple yet effective solution to enhance children's physical activity safely. This approach can range from casual arrangements between families to structured programs with fixed routes, schedules, and volunteer coordinators (National Center for Safe Routes to School, n.d.).

Key benefits of the WSB include increased exercise, enhanced community interaction, and improved safety, as adult supervision can alleviate parental concerns about traffic and other risks. To start a WSB, organizers are advised to begin small, perhaps with a single neighborhood, to gauge interest and effectiveness. Essential steps include inviting families, selecting and testing a route, and deciding the frequency of walks. Ensuring safety is paramount, necessitating considerations like the presence of sidewalks, traffic conditions, and general environmental safety (National Center for Safe Routes to School, n.d.).

For communities seeking to expand their WSB programs, it is crucial to assess interest levels and logistics, such as identifying routes, determining the required number of adult supervisors (recommended by the Centers for Disease Control and Prevention [CDC] as one adult per six children), and addressing logistical details like meeting points and times. The manual encourages communities to collaborate with school officials, law enforcement, and other local entities to enhance the structure and reach of their programs (National Center for Safe Routes to School, n.d.).

The WSB is promoted as not only a means to improve health and safety but also as a way to build stronger community ties and promote sustainable habits among young generations. The initiative typically kicks off during International Walk to School Month in October, leveraging community events to boost participation and engagement (National Center for Safe Routes to School, n.d.).


Starting a walking school bus:
the basics

Why develop a walking school bus?

Studies show that fewer children are walking and biking to school, and more children are at risk of becoming overweight. Changing behaviors of children and parents require creative solutions that are safe and fun.

Implementing a walking school bus can be both.

Chester, VT

What is a walking school bus?

A walking school bus is a group of children walking to school with one or more adults. If that sounds simple, it is, and that's part of the beauty of the walking school bus. It can be as informal as two families taking turns walking their children to school to as structured as a route with meeting points, a timetable and a regularly rotated schedule of trained volunteers.

A variation on the walking school bus is the bicycle train, in which adults supervise children riding their bikes to school. The flexibility of the walking school bus makes it appealing to communities of all sizes with varying needs.

Parents often cite safety issues as one of the primary reasons they are reluctant to allow their children to walk to school. Providing adult supervision may help reduce those worries for families who live within walking or bicycling distance to school.

Starting simple

When beginning a walking school bus, remember that the program can always grow. It often makes sense to start with a small bus and see how it works. Pick a single neighborhood that has a group of parents and children who are interested. It's like a carpool—without the car—with the added benefits of exercise and visits with friends and neighbors. For an informal bus:

1. Invite families who live nearby to walk.
2. Pick a route and take a test walk.
3. Decide how often the group will walk together.
4. Have fun!

When picking a route,
answer these four questions:

1. Do you have room to walk?
   Are there sidewalks or paths?
   Is there too much traffic?
2. Is it easy to cross the street?
3. Do drivers behave well?
   Do they yield to walkers?
   Do they speed?
4. Does the environment feel safe?
   Are there loose dogs?
   Is there criminal activity?

Apex, NC

For more help identifying walkable routes, use the Walkability Checklist that can be found at www.walktoschool.org/buildevent/checklists.cfm.

SafeRoutes

www.walktoschool.org www.saferoutesinfo.org

Figure 3-4: The first page of the Starting a Walking School Bus: the Basics manual (National Center for Safe Routes to School, n.d.).

3.2.4 The Walking School Bus: Combining Safety, Fun and the Walk to School, USA

The Walking School Bus: Combining Safety, Fun and the Walk to School (Figure 3-5), developed by the Pedestrian and Bicycle Information Center and National Center for Safe Routes to School (n.d.), offers a comprehensive framework for establishing a WSB program aimed at improving child safety and increasing physical activity by walking to school. The WSB is an organized group of children walking to school with one or more adults, designed to make the journey to school a safe, appealing, and social experience.

- The key components of the guide are as follows (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.):
    1. Program Structure and Planning: The guide outlines steps to consider whether a WSB is suitable for a community and details different structural models, ranging from simple, informal groups to more formalized, multi-route programs. It emphasizes starting with small, manageable groups and scaling up as community engagement increases.
    2. Safety Protocols: Safety is paramount, and this involves route planning to avoid high-traffic areas, choosing safe crossing points, and ensuring adequate adult supervision according to CDC guidelines (e.g., one adult per six children).
    3. Implementation Steps: Practical steps for implementing a WSB include identifying potential routes, securing adult volunteers, establishing clear procedures, and promoting the program within the community to garner support.
    4. Engagement and Growth: The guide suggests methods for maintaining interest and participation, such as organizing regular walking events, integrating educational components about pedestrian safety, and using incentives for frequent participants.
    5. Evaluation and Adaptation: To measure the impact of the WSB, the guide recommends routine evaluations of participation rates, safety incidents, and community feedback to refine the program continuously (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.).
- The benefits that are highlighted in the guide are as follows (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.):
    1. Children: Improved safety, increased physical activity, and enhanced social skills.
    2. Parents: Reduced traffic congestion during school commutes, lower transportation costs, and community connection.
    3. Community: Less environmental impact from reduced vehicular use, stronger community ties, and safer neighborhoods (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.).

The WSB program not only addresses safety concerns for children traveling to and from school but also fosters a sense of community and encourages a healthy lifestyle among young people. The guide provides a detailed roadmap for communities to implement these programs effectively, ensuring that they are tailored to local needs and resources (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.).

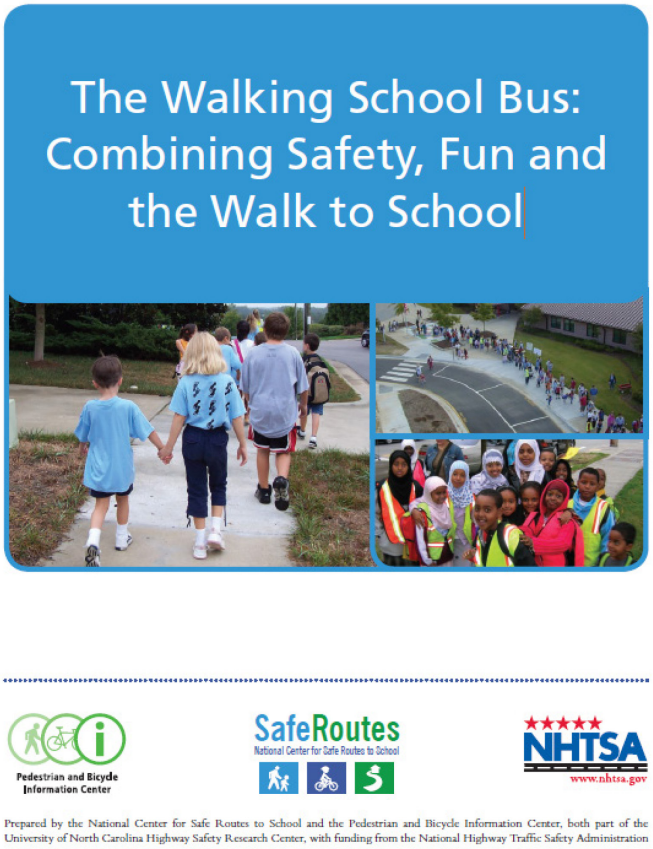


Figure 3-5: The front page of The Walking School Bus: Combining Safety, Fun and the Walk to School guide (Pedestrian and Bicycle Information Center & National Center for Safe Routes to School, n.d.).

3.2.5 Walking School Bus Toolkit, Canada

The Walking School Bus Toolkit (Figure 3-6) is a comprehensive resource designed by the Capital Regional District, British Columbia, Canada, to facilitate the implementation of WSBs at schools within the region. This initiative encourages students to engage in active transportation, enhancing both physical and mental health through communal walking experiences (Capital Regional District, n.d.).

The toolkit provides a step-by-step guide on setting up a WSB, which includes establishing safe and accessible drop-off locations that encourage students to walk the remaining distance to school. The guide differentiates between formal and informal WSBs, with the formal option including adult-led groups and designated stops that ensure safe vehicle access and egress for children (Capital Regional District, n.d.).

- The key components of the toolkit are as follows (Capital Regional District, n.d.):
  1. Designated Locations: Schools are advised to choose strategic locations for WSB stops, ensuring they are safe and promote easy access to school premises.
  2. Participants: The program is community-driven, involving parents, guardians, school personnel, and local government bodies to ensure its success and sustainability.
  3. Promotional Materials and School Support: To effectively communicate and encourage participation in the program, a variety of promotional tools, such as emails, newsletters, and flyers, are suggested (Capital Regional District, n.d.).
- The WSB program offers multiple benefits, including (Capital Regional District, n.d.):
  1. Increased physical activity, which aids in improving students' health.
  2. Enhanced road safety awareness among children.
  3. Opportunities for social interaction and community engagement.
  4. Reduction in traffic congestion and air pollution near schools (Capital Regional District, n.d.).

The toolkit suggests practical tips for success, such as engaging parent volunteers, practicing the route with children to familiarize them with key landmarks and safety points, and organizing celebratory events to boost participation and enthusiasm. The Walking School Bus Toolkit is a vital resource that supports schools in developing a safe, enjoyable, and healthy way for children to travel to school.

By promoting active school travel, the toolkit not only benefits students but also contributes to building healthier and more connected communities (Capital Regional District, n.d.).

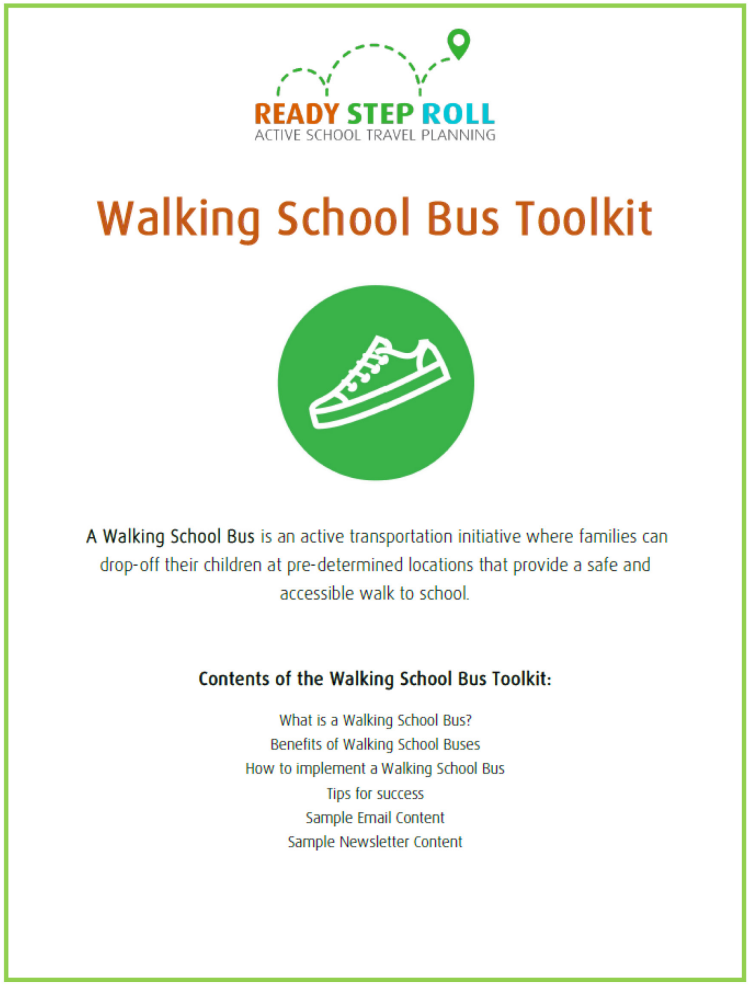


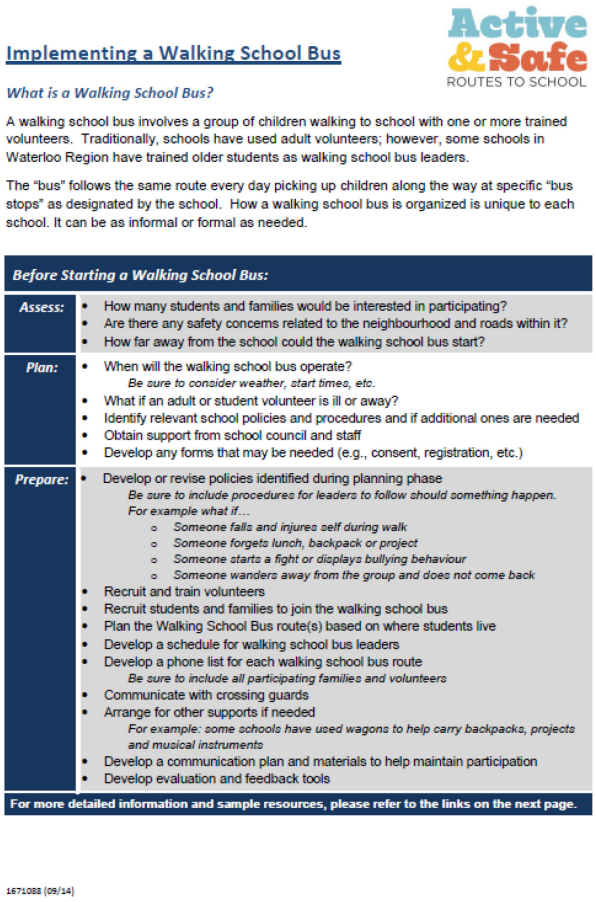
Figure 3-6: The front page of the Walking School Bus Toolkit (Capital Regional District, n.d.).

3.2.6 Implementing a Walking School Bus, Canada

The Implementing a Walking School Bus manual (Figure 3-7) (Region of Waterloo, 2014) provides a detailed guide for schools and communities interested in starting a WSB, an initiative that promotes active transportation for children going to school. This program involves children walking to school along a predefined route under the supervision of trained volunteers, which can include adults or older students. The WSB is designed to be adaptable to the specific needs of each school, allowing for varying degrees of formality in its implementation. The guide emphasizes the importance of thorough preparation and community involvement to ensure the safety and effectiveness of the program.

- The key steps for implementation are as follows (Region of Waterloo, 2014):
  1. Assessment: Determine the interest level among students and families, identify potential safety concerns, and establish how far from school the WSB should start.
  2. Planning: Decide on the operational details, such as timing and contingency plans for volunteer absence. Align the WSB with existing school policies or develop new ones as necessary.
  3. Preparation: Develop or revise safety policies, recruit and train volunteers, plan the route based on where students live, and create communication plans to engage with families and volunteers.
  4. Support Measures: Consider logistical support, such as wagons for carrying school supplies, and coordinate with local crossing guards to enhance safety.
  5. Promotion and Evaluation: Develop promotional materials to maintain participation and tools for evaluating the program's impact (Region of Waterloo, 2014).
- The benefits of WSBs are as follows (Region of Waterloo, 2014):
  1. Improves physical fitness, independence, mental wellbeing, and self-esteem of participants.
  2. Reduces traffic congestion and air pollution around schools.
  3. Enhances children's social skills, community involvement, and leadership abilities through increased interactions with peers and community members (Region of Waterloo, 2014).

Implementing a Walking School Bus manual serves as a comprehensive resource for schools aiming to foster a safe, fun, and health-conscious environment for students. By detailing the processes of assessment, planning, preparation, and evaluation, the guide assists schools in creating a successful WSB program that benefits not only the students but also the broader community. Finally, it has to be mentioned that the manual was realized in the frame of the Active & Safe Routes to School program (Region of Waterloo, 2014).



Implementing a Walking School Bus

Active & Safe ROUTES TO SCHOOL

What is a Walking School Bus?

A walking school bus involves a group of children walking to school with one or more trained volunteers. Traditionally, schools have used adult volunteers; however, some schools in Waterloo Region have trained older students as walking school bus leaders.

The "bus" follows the same route every day picking up children along the way at specific "bus stops" as designated by the school. How a walking school bus is organized is unique to each school. It can be as informal or formal as needed.

Before Starting a Walking School Bus:	
Assess:	• How many students and families would be interested in participating? • Are there any safety concerns related to the neighbourhood and roads within it? • How far away from the school could the walking school bus start?
Plan:	• When will the walking school bus operate? *Be sure to consider weather, start times, etc.* • What if an adult or student volunteer is ill or away? • Identify relevant school policies and procedures and if additional ones are needed • Obtain support from school council and staff • Develop any forms that may be needed (e.g., consent, registration, etc.)
Prepare:	• Develop or revise policies identified during planning phase *Be sure to include procedures for leaders to follow should something happen. For example what if…* o *Someone falls and injures self during walk* o *Someone forgets lunch, backpack or project* o *Someone starts a fight or displays bullying behaviour* o *Someone wanders away from the group and does not come back* • Recruit and train volunteers • Recruit students and families to join the walking school bus • Plan the Walking School Bus route(s) based on where students live • Develop a schedule for walking school bus leaders • Develop a phone list for each walking school bus route *Be sure to include all participating families and volunteers* • Communicate with crossing guards • Arrange for other supports if needed *For example: some schools have used wagons to help carry backpacks, projects and musical instruments* • Develop a communication plan and materials to help maintain participation • Develop evaluation and feedback tools

For more detailed information and sample resources, please refer to the links on the next page.

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Figure 3-7: The first page of the Implementing a Walking School Bus manual (Region of Waterloo, 2014).

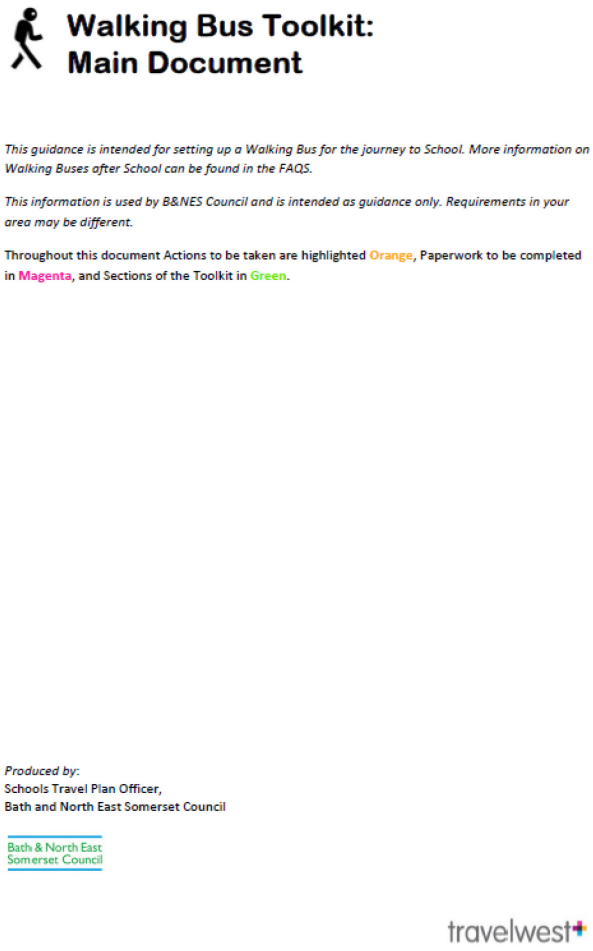
3.2.7 Walking Bus Toolkit: Main Document, UK

The main document of the Walking Bus Toolkit (Figure 3-8) produced by Bath and North East Somerset Council, UK, serves as a comprehensive guide for schools and communities looking to establish a walking bus for students commuting to and from school. The toolkit aims to provide a structured approach to initiating and maintaining this safe and sociable mode of travel, which not only reduces congestion around school gates but also enhances the students' knowledge of road safety and their local environment (Bath and North East Somerset Council, n.d.).

- An overview of the toolkit follows (Bath and North East Somerset Council, n.d.):

1. Introduction and Justification: The document starts by explaining what a walking bus is and the myriad benefits associated with its implementation, such as promoting healthy exercise, reducing traffic, and increasing children's road safety awareness.
2. Getting Started: This section covers the initial steps required to gauge interest and support for the walking bus, including securing backing from the school and engaging parents. It emphasizes the importance of appointing a Walking Bus Coordinator to oversee the initiative's smooth running.
3. Route Planning: Detailed guidance is provided on creating a safe and efficient route for the walking bus. This involves mapping potential routes, conducting risk assessments with a focus on pedestrian safety, and finalizing the route with input from parents and school staff.
4. Implementation Actions: The toolkit specifies actions needed before launching the walking bus, such as conducting general and specific risk assessments, ensuring volunteers undergo necessary background checks, and organizing high-visibility clothing for visibility and safety.
5. Promotion and Ongoing Support: Strategies for promoting the walking bus and keeping participants engaged are discussed. This includes ideas for sustaining enthusiasm through incentives and regularly recruiting new volunteers and families to participate.
6. Comprehensive Support Materials: The document includes links to additional resources, Frequently Asked Questions (FAQ) addressing common concerns, and templates for permission forms and volunteer rotas to facilitate the administrative aspects of running a walking bus (Bath and North East Somerset Council, n.d.).

The Walking Bus Toolkit by Bath and North East Somerset Council offers an essential resource for communities looking to enhance student safety and engagement through structured walking groups. By following the detailed steps and utilizing the provided materials and support, schools can effectively implement a walking bus that benefits students, parents, and the broader community. Finally, it has to be mentioned that apart from this main document, there are many other resources offered to help realize a walking bus (Bath and North East Somerset Council, n.d.).



Walking Bus Toolkit:
Main Document

This guidance is intended for setting up a Walking Bus for the journey to School. More information on Walking Buses after School can be found in the FAQS.

This information is used by B&NES Council and is intended as guidance only. Requirements in your area may be different.

Throughout this document Actions to be taken are highlighted Orange, Paperwork to be completed in Magenta, and Sections of the Toolkit in Green.

Produced by:
Schools Travel Plan Officer,
Bath and North East Somerset Council

Bath & North East Somerset Council

travelwest

Figure 3-8: The first page of the Walking Bus Toolkit: Main Document (Bath and North East Somerset Council, n.d.).

3.2.8 How To: Organise a Walking Bus to School, UK

The manual How to Organize a Walking Bus to School (Figure 3-9) is designed to help parents, caregivers, and community members establish a walking bus as a sustainable and healthy way to transport children to school. This initiative supports environmental goals such as reducing air pollution and promoting physical activity among children (Global Action Plan, n.d.).

A walking bus is defined as a group of children walking to school with one or more adults, following a pre-determined route that picks up additional children along the way. This method is particularly beneficial on Clean Air Day, encouraging a break from the daily car commute and reducing children's exposure to air pollution (Global Action Plan, n.d.).

- The steps to organize a walking bus are as follows (Global Action Plan, n.d.):
  1. Route Planning: The guide recommends planning a route that avoids main roads to lessen exposure to air pollution by up to 20%.
  2. Communication and Coordination: Effective communication with the school and parents is crucial. This includes determining pickup points, setting a schedule, and informing the school about which children will be participating.
  3. Promotion: Engaging children in making promotional posters and discussing the walking bus in school assemblies can increase participation. Parents are encouraged to use template letters and publicity tips to draw more community attention and possibly media coverage.
  4. Health and Safety: Conducting a risk assessment is essential to ensure the safety of all participants. This includes choosing safe routes, adhering to the Green Cross Code, and considering the use of high-visibility jackets for visibility.
  5. Sustainability: If successful, parents and caregivers are encouraged to make the walking bus a regular event, contributing to long-term reductions in air pollution and fostering a car-free culture for school commutes (Global Action Plan, n.d.).

The How to Organize a Walking Bus to School manual provides a practical framework for communities looking to implement a fun, safe, and environmentally friendly way to travel to school. By following the steps outlined, organizers can establish a walking bus that not only reduces pollution but also promotes healthier lifestyles for children. Finally, it has to be mentioned that it is a two-page handy manual, that is extremely useful for people without much time (Global Action Plan, n.d.).

How to: organise a walking bus to school

CleanAirDay

A 'walking bus' is simply a group of parents/carers and children walking to school, picking up more children and parents/carers along the route. When done on a regular basis, parents/carers can take it in turns to accompany the walking bus, giving you the occasional break from doing the school run! Planning a walking bus is a practical way to give lots of cars a day off on Clean Air Day.

Top tips

- Stick to the side streets - there are websites to find the quiet, less polluted routes near you.
- The bigger the bus, the more fun you will have, but make sure you have enough adults to supervise the 'passengers'.
- You can have multiple walking buses from different locations.
- Agree a time that the walking bus will leave and an approximate time for when you will be picking people up on route.
- Talk to the school about your walking bus, and let them know which children will be arriving in your walking bus.

Step by step

1. Decide your route. Where possible stick to the side streets, avoiding the main roads can reduce your exposure to air pollution by up to 20%.
2. Choose the time your walking bus will leave in order to get to school on time and work out a rough time schedule for when it will be walking past various places where you can pick up more children.

"It was a really lovely fun walk, and great to get the Councillors and the Mayor involved"
Islington Council

Figure 3-9: The first page of the How to Organize a Walking Bus to School manual (Global Action Plan, n.d.).

3.2.9 Rathdown County Council School Travel Plan & Walking Bus Guidelines, Ireland

The Rathdown County Council School Travel Plan & Walking Bus Guidelines (Figure 3-10), provides a comprehensive framework for promoting sustainable travel within the school community through initiatives like the School Travel Plan and the Walking Bus. This initiative is part of a broader commitment to improve road safety and encourage environmentally friendly travel modes such as walking and cycling (Rathdown County Council, 2015).

- The structure of the guidelines is as follows (Rathdown County Council, 2015):
  1. School Travel Plan: The guide outlines the steps to create an effective School Travel Plan, which includes setting realistic goals for reducing car trips and promoting safer, healthier travel options. It details how to gather and analyze travel data, engage stakeholders, and integrate these efforts into the school's ethos. It emphasizes continuous monitoring and revision of the plan to adapt to new challenges and opportunities.
  2. Walking Bus Program: The Walking Bus initiative encourages groups of students to walk to school under adult supervision. The guide describes how to assess interest, plan routes, conduct safety assessments, and establish clear operational guidelines. It also highlights the benefits of the program, such as promoting physical health, reducing traffic congestion, and enhancing road safety awareness among children.
  3. Implementation Steps:
     i. Interest Assessment: Schools are advised to gauge parent and community interest through surveys and meetings.
     ii. Route Planning: The planning process includes mapping out safe routes, determining stop locations, and ensuring the route's suitability through formal assessments.
     iii. Promotion and Operation: The guide suggests strategies for promoting the Walking Bus and engaging both parents and local authorities in its ongoing operation.
  4. Safety and Compliance: Safety is a paramount concern, with detailed guidelines on conducting risk assessments and ensuring all participants understand and follow safety protocols. This includes wearing high-visibility vests and adhering to established routes and behaviors.
  5. Community and Parental Involvement: The success of these programs relies heavily on active participation and support from parents, teachers, and local authorities. The guide provides templates and examples of communication tools to facilitate this involvement (Rathdown County Council, 2015).

The guidelines provide schools with a detailed and structured approach to reducing car dependency among school children. By fostering a safer, more active, and community-oriented travel culture, these initiatives contribute to the broader goals of environmental sustainability and public health. This guide serves as a valuable resource for schools looking to implement or enhance their travel plans and walking bus programs (Rathdown County Council, 2015).

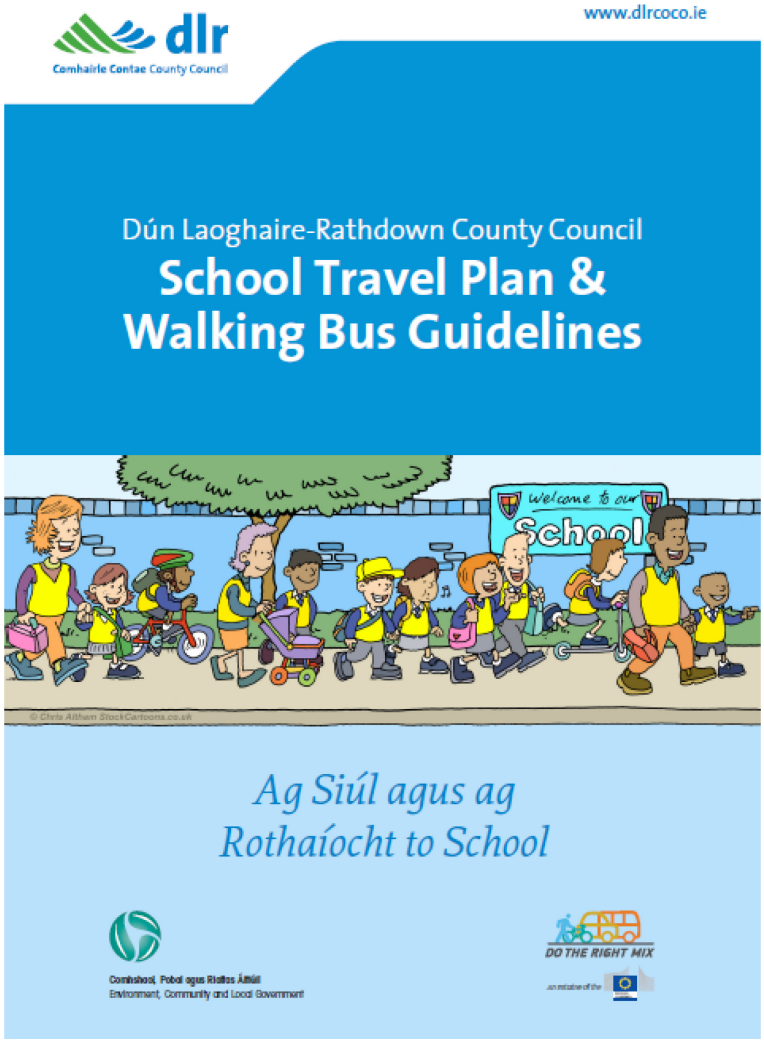


Figure 3-10: The front page of the Rathdown County Council School Travel Plan & Walking Bus Guidelines (Rathdown County Council, 2015).

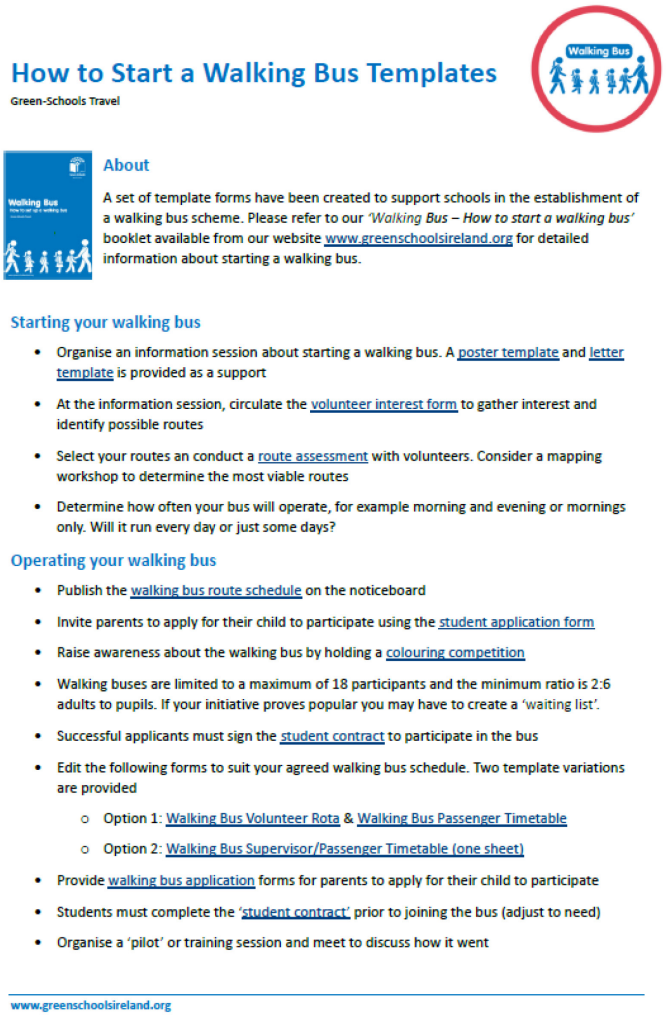
3.2.10 How to Start a Walking Bus Templates, Ireland

How to Start a Walking Bus Templates (Figure 3-11) by Green-Schools, Ireland, is a comprehensive toolkit for schools looking to establish a walking bus initiative. Developed by Green-Schools (2023), the set of templates and guidelines is designed to facilitate the safe and organized walking of students to and from school under adult supervision, aiming to reduce congestion and promote physical activity among students. A walking bus is a structured form of walking where students, led by adult volunteers, follow a predetermined route with specific 'bus stops' for picking up and dropping off students. This system not only enhances the safety of children on their way to and from school but also fosters a sense of community and responsibility among participants (Green-Schools, 2023).

- The key steps for implementation are as follows (Green-Schools, 2023):
  1. Planning and Organization: Schools are advised to start with an information session for parents and guardians to gather interest and discuss logistics. This involves using provided templates for posters and letters to communicate with the community.
  2. Route Selection and Safety Assessments: Critical to the setup is the selection of safe routes, which should be assessed by volunteers for hazards, pavement conditions, and traffic patterns. A route assessment form helps in documenting these factors.
  3. Registration and Participation: Parents can register their children using a student application form, which includes details about the child's availability and medical conditions. Participation also requires signing a student contract to ensure adherence to safety and behavioral guidelines.
  4. Volunteer Organization: A volunteer rota template helps coordinate the schedules of adults who will lead the walking bus. Each bus requires a minimum of two adults at any time to maintain a safe student-to-adult ratio.
  5. Operational Details: The templates include forms for creating passenger lists and schedules, ensuring that all details are organized and accessible for the efficient operation of the walking bus (Green-Schools, 2023).

The initiative encourages walking as a healthy routine for children, reducing vehicular traffic and environmental impact around schools. Supervised walks also support social interaction and enhance children's safety. Schools can adapt the provided templates to suit specific local needs, making the implementation of a walking bus accessible and structured (Green-Schools, 2023).

The Green-Schools Travel Walking Bus Templates serve as an essential resource for schools aiming to implement a walking bus program. By providing detailed templates and guidelines, Green-Schools facilitates a safe, enjoyable, and environmentally friendly way for children to travel to and from school (Green-Schools, 2023).



How to Start a Walking Bus Templates

Green-Schools Travel

About

A set of template forms have been created to support schools in the establishment of a walking bus scheme. Please refer to our *'Walking Bus – How to start a walking bus'* booklet available from our website www.greenschoolsireland.org for detailed information about starting a walking bus.

Starting your walking bus

- Organise an information session about starting a walking bus. A poster template and letter template is provided as a support
- At the information session, circulate the volunteer interest form to gather interest and identify possible routes
- Select your routes an conduct a route assessment with volunteers. Consider a mapping workshop to determine the most viable routes
- Determine how often your bus will operate, for example morning and evening or mornings only. Will it run every day or just some days?

Operating your walking bus

- Publish the walking bus route schedule on the noticeboard
- Invite parents to apply for their child to participate using the student application form
- Raise awareness about the walking bus by holding a colouring competition
- Walking buses are limited to a maximum of 18 participants and the minimum ratio is 2:6 adults to pupils. If your initiative proves popular you may have to create a 'waiting list'.
- Successful applicants must sign the student contract to participate in the bus
- Edit the following forms to suit your agreed walking bus schedule. Two template variations are provided
  - Option 1: Walking Bus Volunteer Rota & Walking Bus Passenger Timetable
  - Option 2: Walking Bus Supervisor/Passenger Timetable (one sheet)
- Provide walking bus application forms for parents to apply for their child to participate
- Students must complete the 'student contract' prior to joining the bus (adjust to need)
- Organise a 'pilot' or training session and meet to discuss how it went

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Figure 3-11: The first page of the How to Start a Walking Bus Templates toolkit (Green-Schools, 2023).

3.2.11 Walking School Bus Coordinator's Guide, New Zealand

Walking School Bus Coordinator's Guide (2023 edition) (Figure 3-12), published by Waka Kotahi New Zealand Transport Agency, provides a comprehensive framework for setting up and managing WSBs. This initiative aims to enhance children's safety, promote physical activity, and reduce traffic congestion around schools by organizing group walks to and from school under adult supervision (Waka Kotahi New Zealand Transport Agency, 2023a).

- The key components of the guide are as follows (Waka Kotahi New Zealand Transport Agency, 2023a):
    1. Initiative Overview: The guide explains the benefits of a WSB, including fostering healthier lifestyles among children, teaching road safety, and encouraging independence and social interaction. It also helps reduce vehicular traffic during school peak times.
    2. Getting Started: This section offers practical advice on launching a WSB, including organizing initial meetings, identifying potential routes, and engaging community interest through surveys to assess demand and plan logistics.
    3. Operational Strategies: Detailed instructions are provided on mapping routes, establishing volunteer responsibilities, and ensuring safety protocols are followed. This includes the importance of vetting volunteers and providing them with necessary road safety training.
    4. Maintaining Interest: To sustain engagement and effective operation, the guide suggests holding theme days, recognizing volunteer efforts, and continuously promoting the WSB within the school and local community.
    5. Resources and Support: The guide includes links to additional resources such as templates for letters to parents, volunteer rosters, and route plans, all available on the Waka Kotahi Education Portal. These tools are designed to simplify the setup and ongoing management of a WSB (Waka Kotahi New Zealand Transport Agency, 2023a).

The Walking School Bus Coordinator's Guide serves as an essential resource for schools and communities interested in promoting safer, healthier, and more environmentally friendly transportation options for students (Waka Kotahi New Zealand Transport Agency, 2023a).

By providing a clear, step-by-step approach to planning and implementation, the guide supports coordinators in establishing a successful WSB that benefits students, parents, and the broader community (Waka Kotahi New Zealand Transport Agency, 2023a).

Apart from the Walking School Bus Coordinator's Guide, Waka Kotahi New Zealand Transport Agency also provides a complete toolkit with several components like the following (Waka Kotahi New Zealand Transport Agency, 2023b):

1. Letter to Parents Walking School Bus.
2. Text for School Newsletter Walking School Bus.
3. Survey Walking School Bus.
4. Guidelines Walking School Bus.
5. Volunteer Roster Walking School Bus.
6. Child roster Walking School Bus.
7. Parent roster Walking School Bus.
8. Route Plan Walking School Bus.
9. Consent Form Walking School Bus (Waka Kotahi New Zealand Transport Agency, 2023b).

Figure 3-12: The front page of the Walking School Bus Coordinator's Guide (Waka Kotahi New Zealand Transport Agency, 2023a).

3.3 Discussion and conclusions of the manuals' review

From the results of the manual's review, it seems that most walking bus manuals can be found in English-speaking countries. This was expected, as the review was conducted in English. Moreover, practitioners are more prone to publish manuals in English as they can have an international target group.

In this deliverable, four (4) manuals from the USA, two (2) manuals from Canada, two (2) manuals from the UK, two (2) manuals from Ireland, and one (1) manual from New Zealand were reviewed. Nevertheless, these are not the only walking bus manuals that exist.

It was found that more or less most walking bus manuals have the same structure, and they can be split into two main categories: manuals in the form of toolkits that have any kind of material needed to start a walking bus (separate manuals for the walkers per age group, the instructors, the leaders, etc., templates, consent forms, detailed safety rules, dissemination material, etc.) and simple manuals in the form of a leaflet that is much easier to be read and understood by the organizers and the walkers. These leaflet-type manuals are much handier and perhaps useful in an era in which children do not want to read many pages, and their attention span is limited due to the new technologies, like mobile phones, etc.

Nevertheless, it was also found that a serious approach to walking buses from nationwide programs like Safe Routes to School in the USA and Active & Safe Routes to School in Canada, which offer all the needed resources to interested schools and stakeholders, helps to disseminate the practice, making it much easier to adopt it.

For the needs of the WalkingBus project, it was found that the handy two-page walking bus manuals that were reviewed were more than enough for the needs of the project, and for every other supporting material, the Safe Routes to School resources webpage contains everything that would be probably needed to develop the presentations of the training of the walkers. Nevertheless, it was decided to develop a proposed integrated walking bus manual structure (presented in Annex A) and a proposed integrated walking bus manual (presented in Annex B).

4 Co-Creation Workshops

4.1 WalkingBus – co-design session in Thessaloniki, Greece

Partner organization: Tero.

Location: Centre of Creative Activities for Children (CCAC) "Kids Athletics," Filippou and Dimokratias 3, 570 19 Peraia, Thessaloniki, Greece.

Date: 19th of April 2024.

Aim of the session: To co-design the routes for the WalkingBus pilots implementation and design the cardboards to be carried by the children during the pilots for enhanced visibility.

Description: Tero, in collaboration with AUTh, invited the director of the CCAC "Kids Athletics" in order to inform him in detail regarding the foreseen activities within the WalkingBus project. There, the project partners were informed that children usually travel to the CCAC "Kids Athletics" from schools to the CCAC and from the CCAC to various sports activities. Through this, a preliminary design of the routes to be followed during the pilots was conducted.

Following this meeting, Tero organized, in collaboration with CCAC, which is a creative space where children between the ages of 4-12 spend numerous hours daily after school, the co-design session within the framework of WalkingBus (Figure 4-1). The usual activities of the CCAC include drawing, studying, sports, and others. Tero and AUTh, in collaboration with the CCAC, invited parents to inform them about the WalkingBus project, its objectives and expected results, as well as the expected collaboration with the KDAP and the participation of the children in various activities. At first, children were invited to draw two (2) double-sided buses on cardboards using a variety of colors and their imagination. At the beginning of this session, children were informed about the purpose of the cardboard buses and their participation in the pilots to be conducted in the upcoming months (Figure 4-2).

Figure 4-1: Invitation poster for the WalkingBus co-creation workshop in Greece.

Figure 4-2: Introduction to the children, Greece.

Children creatively spent more than three (3) hours drawing and coloring the cardboard and eventually created the walking buses. The process and final designs can be seen in the following images (Figure 4-3, Figure 4-4, & Figure 4-5):

Figure 4-3: The WalkingBus cardboards, Greece.

Figure 4-4: The process of painting cardboards, Greece.

Figure 4-5: The final designs, Greece.

Tero and AUTh, in collaboration with the directors of the CCAC, verified the designed routes to be followed during the pilots. The designated routes have been chosen based on the main starting points of the children which usually travel to the CCAC after school. Moreover, often, the children transfer to KAPPA, which is a space dedicated to sports such as swimming, and this has been selected as a potential route as well. Additionally, factors influencing the selection of routes were their walkability, including distance, road conditions, the existence of pavements, low traffic, etc., as well as the practical application and eventually positive impact this could have in the children's daily lives even after the project's completion. The selected routes have been designed on Open Street Maps (OSM) and can be seen below.

1. Figure 4-6: From the 4th Elementary School to CCAC "Kids Athletics" (Figure 4-6).
2. Figure 4-7: From CCAC "Kids Athletics" to KAPPA (Figure 4-7).
3. Figure 4-8: From the 5th Elementary School to CCAC "Kids Athletics" (Figure 4-8).

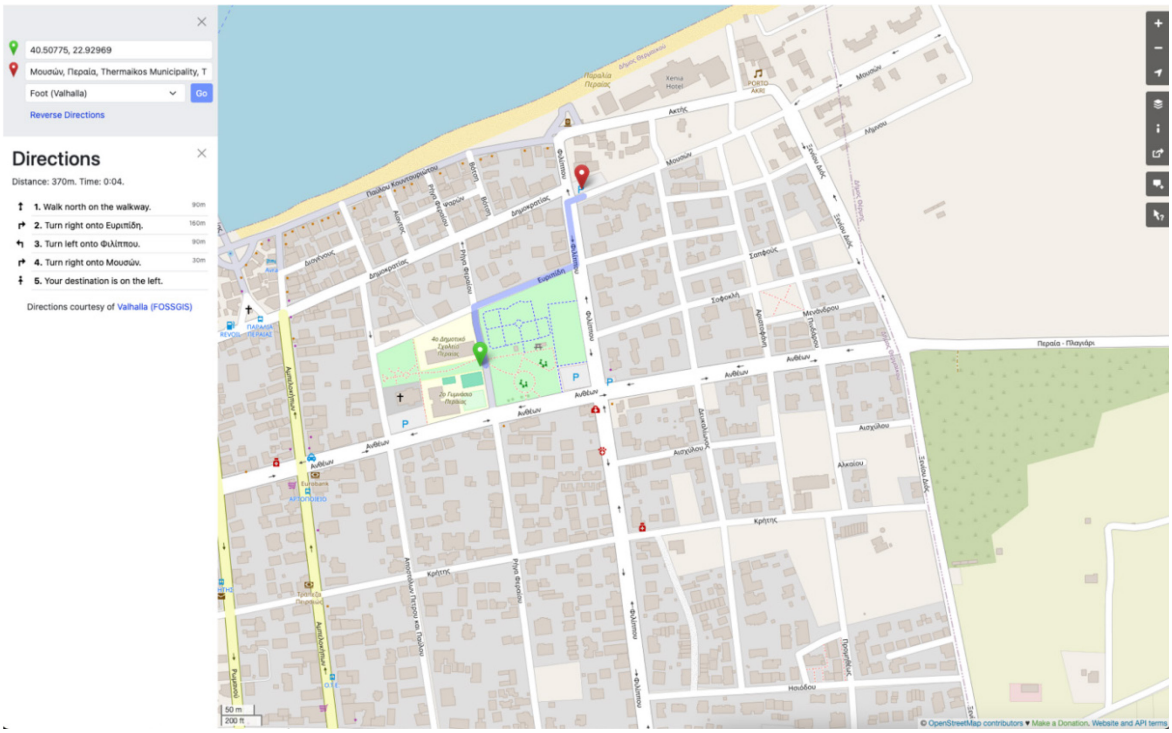

Figure 4-6: WalkingBus Greek Pilot route No. 1: From the 4th Elementary School to CCAC "Kids Athletics."

Figure 4-7: WalkingBus Greek Pilot route No. 2: From CCAC "Kids Athletics" to KAPPA.

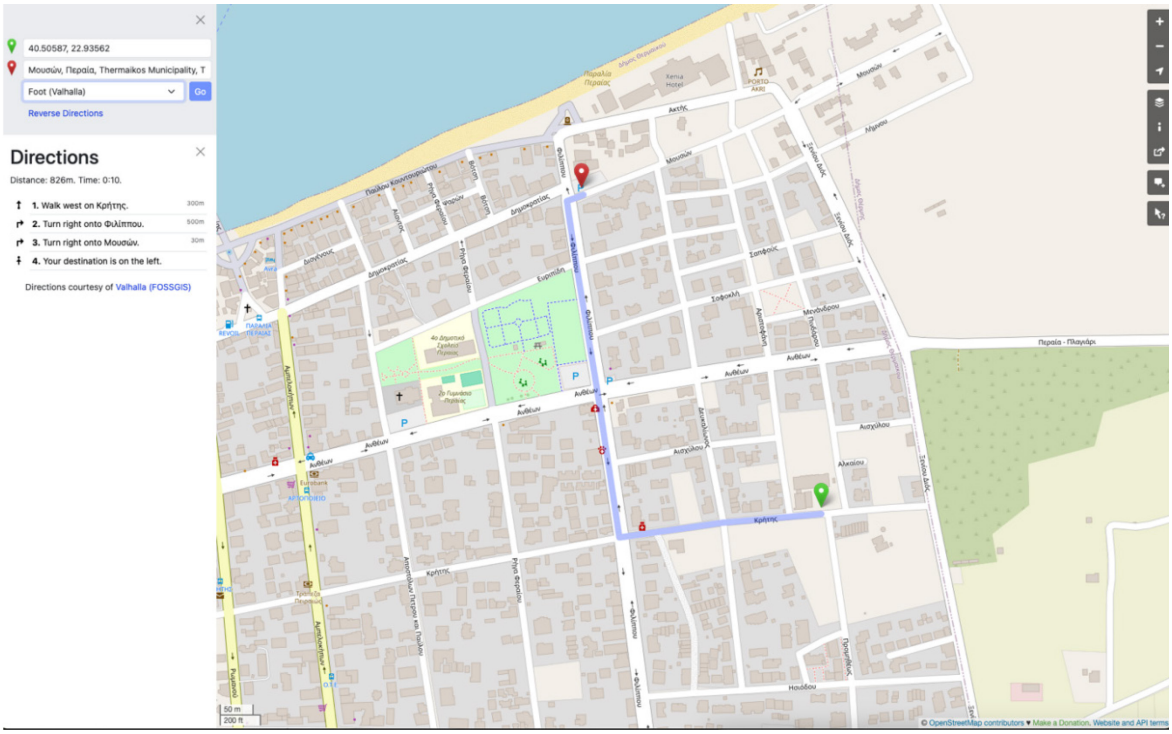

Figure 4-8: WalkingBus Greek pilot route No. 3: From the 5th Elementary School to CCAC "Kids Athletics."

4.2 WalkingBus – co-design session in Sassari, Sardinia, Italy

Partner organization: Mine Vaganti Non-Governmental Organization (NGO).

Associated partner: Associazione culturale "Pitagora."

Date: 26 April 2024.

Place: Online.

Aim of the session: Co-designing routes for the implementation of WalkingBus pilot projects in collaboration with Associazione Culturale "Pitagora."

Description: In the framework of the WalkingBus Erasmus+ project, Mine Vaganti NGO has strengthened its longstanding relations with the local partner Associazione Culturale "Pitagora." The association, with more than 15 years of experience, represents a local educational space that focuses on implementing specific workshops for children and adolescents aged 8-13 during after-school hours.

It represents support to families, schools, and students with which they cooperate. In this framework, Mine Vaganti NGO and Associazione Culturale “Pitagora” have signed a cooperation agreement based on the implementation of future activities related to the WalkingBus project. The main aim is to actively involve both families and the different schools that students attend during school morning hours. At this proposal, Mine Vaganti NGO representative and the president of the Association had an online meeting on April 26th, 2024, at 10 am Central European Time (CET) to discuss further cooperation, logistics, and timing and to establish the WalkingBus route. Due to the different locations at the moment of the meeting, it was not possible to meet in person. That has not hampered the possibility of reaching the meeting objectives and establishing the next steps (Figure 4-9, Figure 4-10, and Figure 4-11).

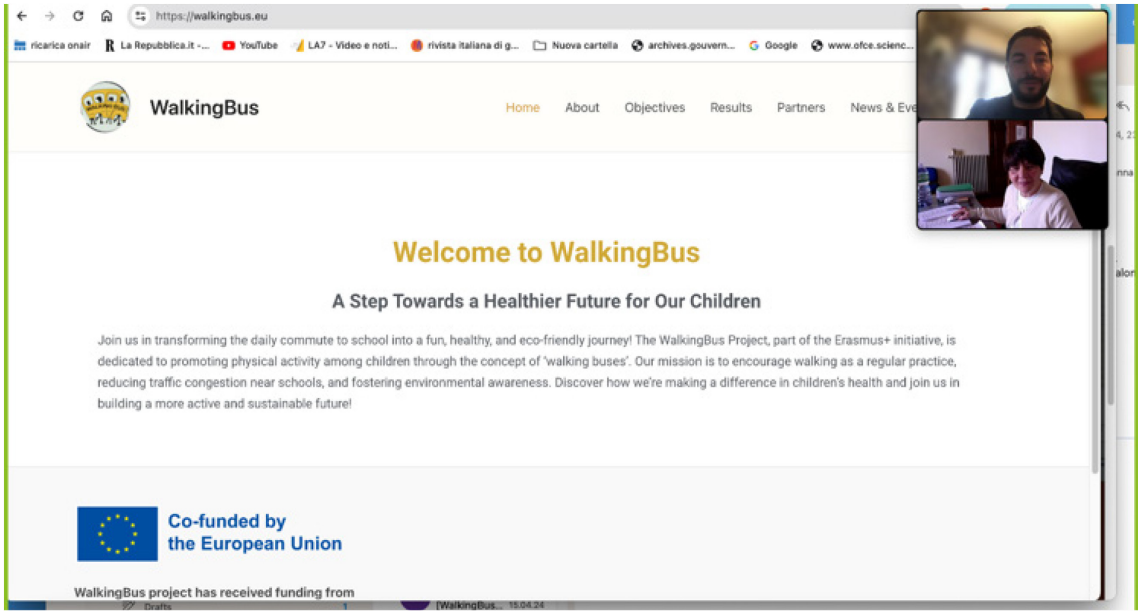

Figure 4-9: Presentation of the WalkingBus project website, Italy.

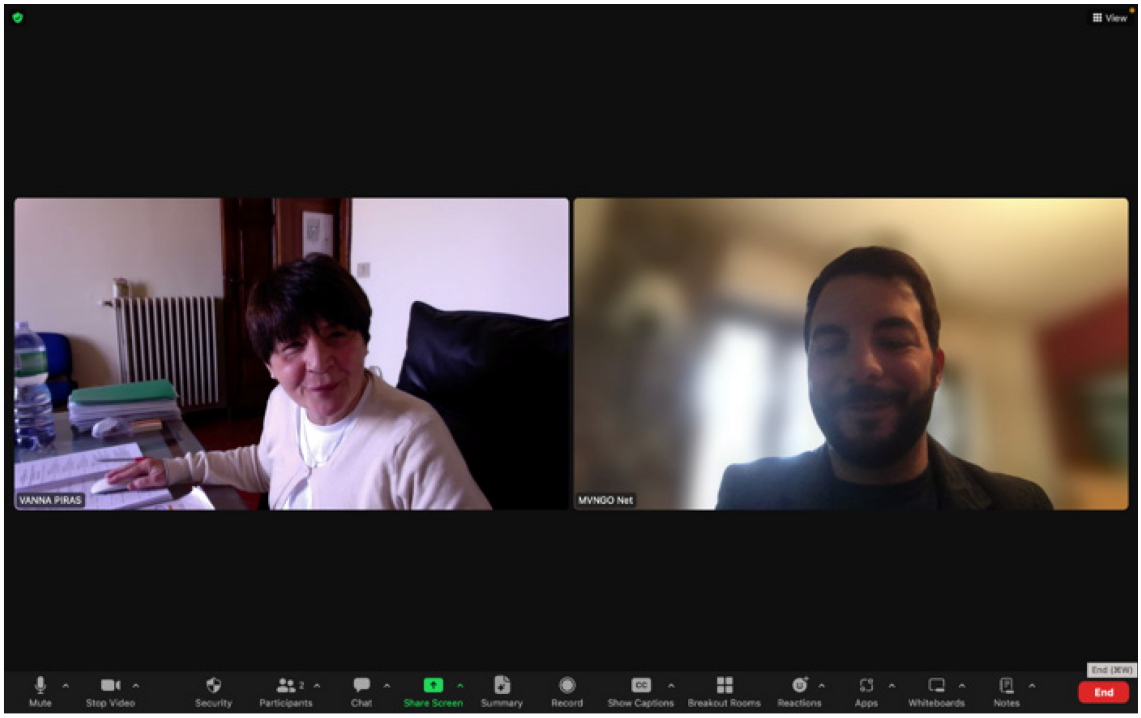

Figure 4-10: Co-creating WalkingBus routes, Italy.

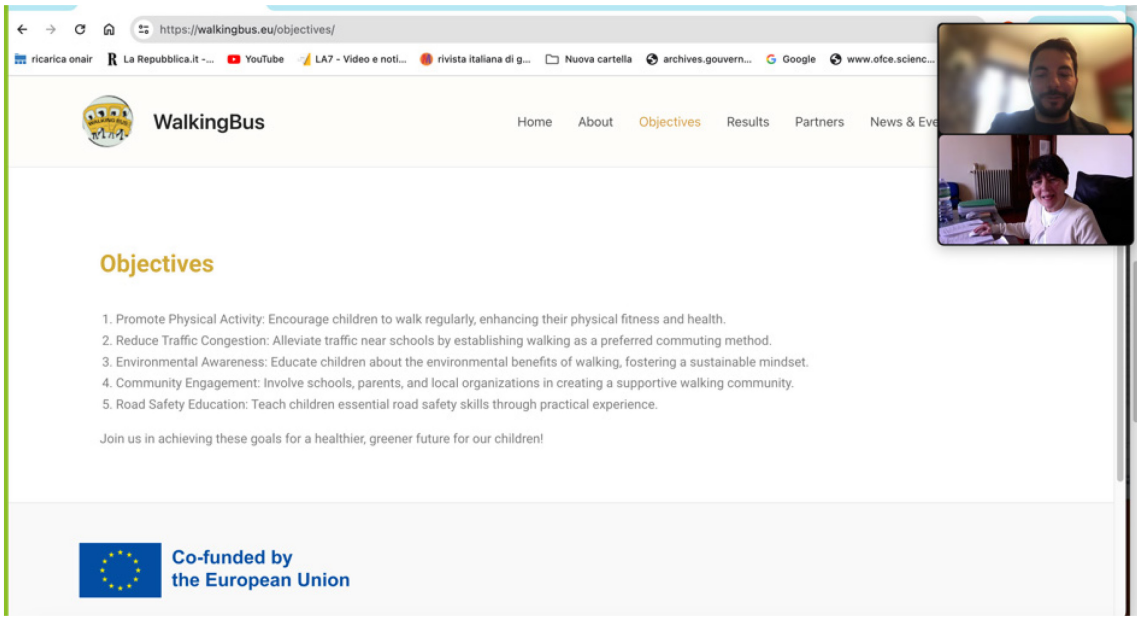

Figure 4-11: Explaining the WalkingBus project objectives, Italy.

Mine Vaganti NGO and Associazione Culturale "Pitagora," designed the route to be followed during the pilots. The route was designated based on the main starting points of children who usually go to the recreation center after school.

In addition, the factors that influenced the selection of the route were their walkability, including distance, road conditions, existence of sidewalks, low traffic, etc., as well as the practical application and the possible positive impact this could have on the children's daily lives even after the completion of the project. The selected route was designated with OSM and can be seen below (Figure 4-12 & Figure 4-13):

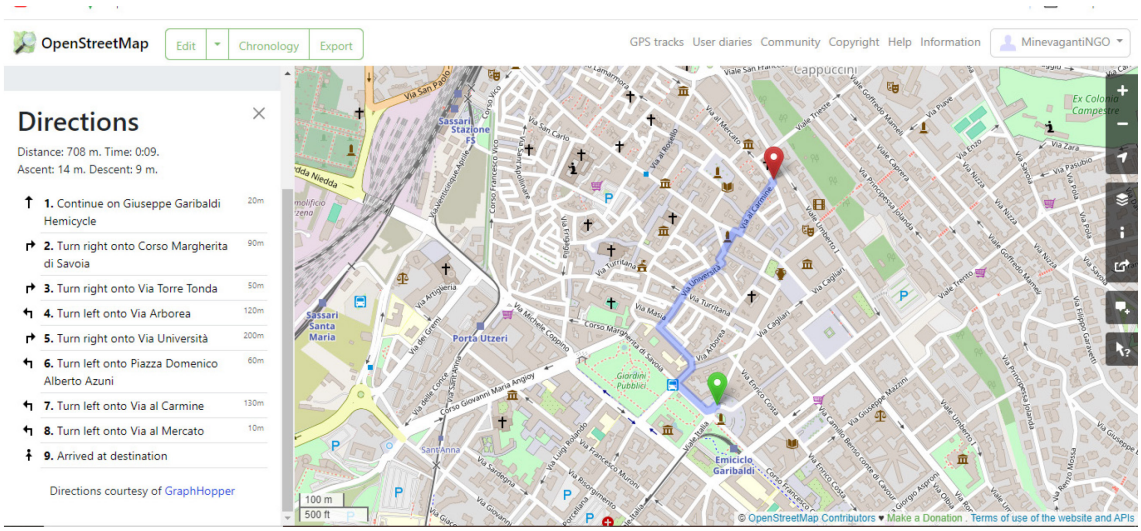

Figure 4-12: 1st WalkingBus route, Italy.

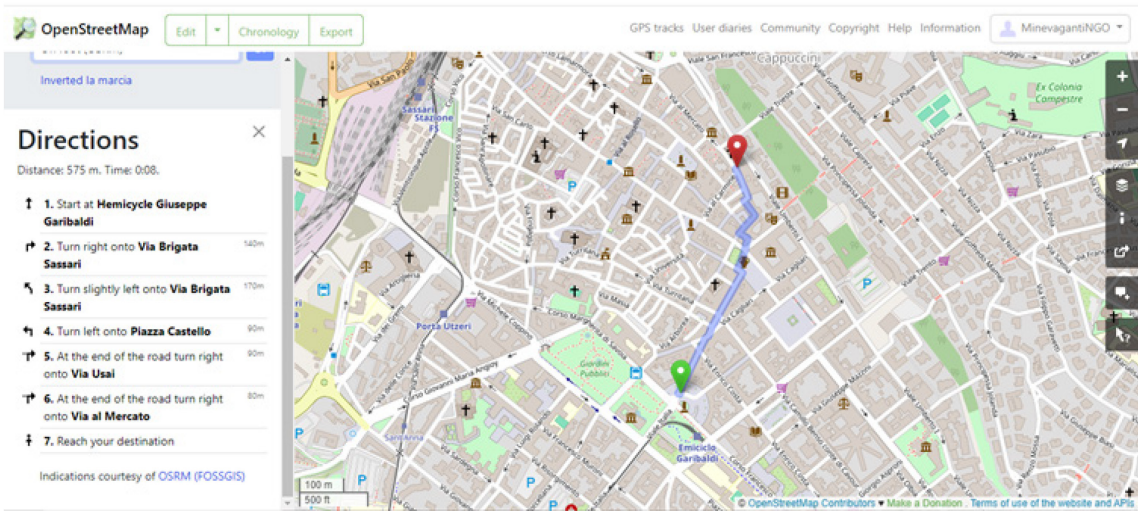

Figure 4-13: 2nd WalkingBus route, Italy.

Moreover, the partners have agreed as follows:

- Establishment of a local committee composed of two (2) members per organization that will be involved: one (1) parent and one (1) teacher.
- Monthly meetings with pupils.

- Meetings with families to update them about the activities' progress and to engage them in the workshops.
- Setting meetings with schools in the territory.

In the next weeks, pupils attending the educational center will be directly involved in the walking bus co-design to be used during the local piloting.

4.3 WalkingBus – co-design session in Sakarya, Türkiye

Partner organization: Kargenc Environment Sport Club.

Location: Erenler Primary School.

Date: 29th of April 2024.

Aim of the session: To co-design the routes for the WalkingBus pilots implementation and design the cardboards to be carried by the children during the pilots for enhanced visibility.

Description: Kargenc Club organized the co-design session within the framework of WalkingBus project in Erenler Primary School, having more than 1,000 students aged between 7-10 in Sakarya province. Within the collaboration of the Kargenc Club and Erenler Primary School, one class of 3rd-grade students aged 9 in the school was included in the co-design session by inviting some of the families of the students. First of all, the families and students were informed about the WalkingBus project, its objectives and expected results in the session. Then, the activity of drawing and coloring a school bus on cardboard was carried out with the participation of the students. The students were informed about the aim of the cardboard and their participation in the pilots to be conducted in the upcoming months.

In the schoolyard, the students drew and colored the school bus on cardboard with the parents' participation. While working on the cardboard, they had great fun together and were excited to be part of the project (Figure 4-14, Figure 4-15, and Figure 4-16).

Figure 4-14: Starting the process of painting the cardboard, Türkiye.

Figure 4-15: The process of painting the cardboard, Türkiye.

Figure 4-16: The final designs, Türkiye.

Kargenc Club, the director of the Erenler Primary School, the teacher, and parents designed the routes to be followed during the pilots. While designing the routes, mainly used rotations and roads attention has been paid to the safety and capability of the students. The defined routes are presented below (Figure 4-17 & Figure 4-18):

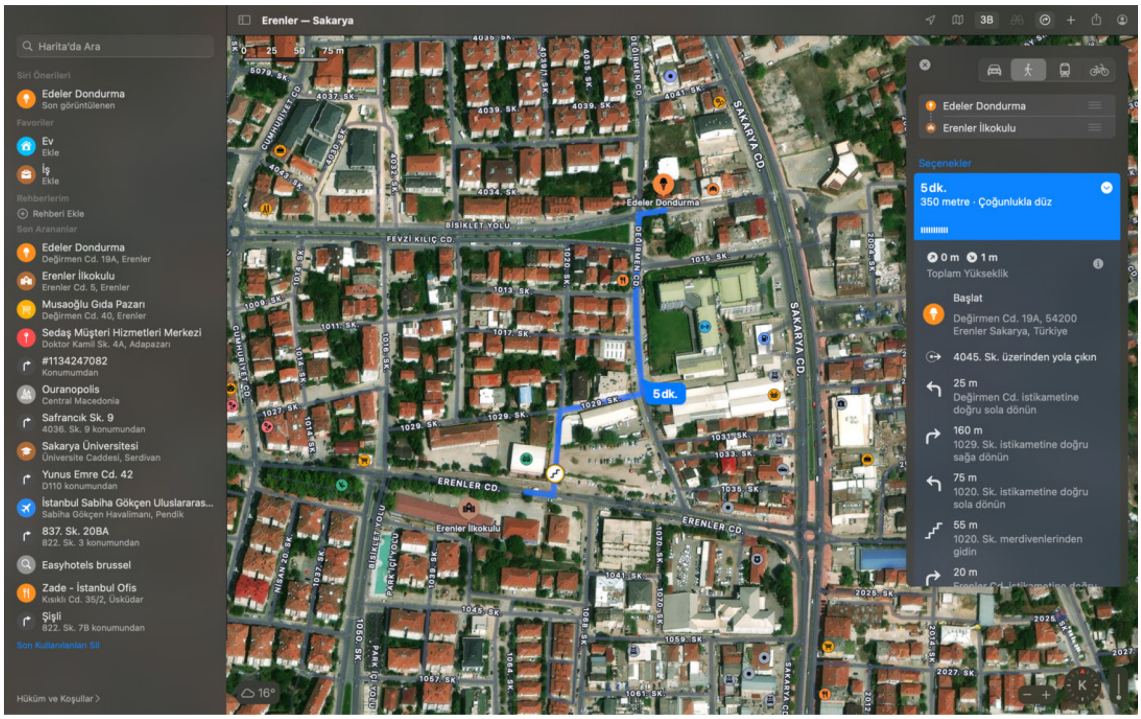

Figure 4-17: 1st WalkingBus route, Türkiye.

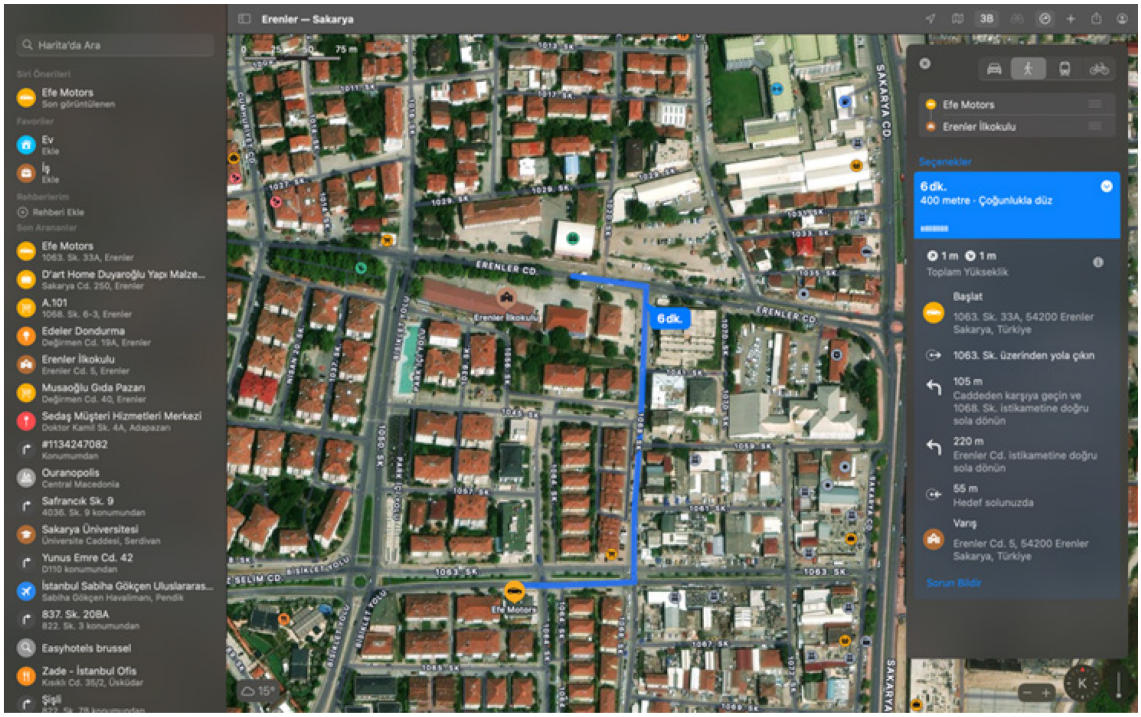

Figure 4-18: 2nd WalkingBus route, Türkiye.

5 Conclusions

In D2.2: WalkingBus Manual, the scientific literature and existing walking bus manuals were reviewed. It was found that there are already quite enough resources online, but nevertheless, Annex A presents an indicative structure of a walking bus manual, and Annex B presents an indicative, integrated walking bus manual.

Finally, despite the difficulties, e.g., in Greece, there was a thunderstorm during the co-creation workshop, and a message from civil protection was sent to avoid trips, and in Italy, the schools were closed due to the vacation period, all three co-creation workshops were realized, and the WalkingBus pilot routes were co-designed.

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Annex A: Indicative WalkingBus Manual Structure

Based on the information gathered during the review of various walking bus manuals, we developed an integrated indicative walking bus manual. This manual will combine the essential information from existing guidelines into a unified document aimed at effectively setting up and managing walking bus programs. The integrated manual will be short enough to be easy comprehended and should include the following sections:

1. **Introduction.**
    - Purpose of the walking bus.
    - Benefits for students, schools, and communities.
2. **Planning and Setup.**
    - Defining objectives.
    - Forming a planning team.
    - Route selection and safety assessment.
3. **Implementation.**
    - Recruiting and training volunteers.
    - Determining schedules and routes.
    - Safety protocols and emergency procedures.
4. **Promotion and Engagement.**
    - Strategies for promoting the walking bus.
    - Engaging students and parents.
    - Community involvement.
5. **Operation and Management.**
    - Day-to-day management.
    - Monitoring and feedback mechanisms.
    - Adjustments and improvements.

6. **Evaluation and Sustainability.**
    - Assessing the impact.
    - Long-term sustainability strategies.
    - Community and environmental benefits.

Based on that structure, the indicative WalkingBus Manual follows in Annex B:

Annex B: Indicative WalkingBus Manual

1. Introduction

Purpose:

The WalkingBus initiative aims to provide a safe, engaging, and healthy way for children to travel to and from school or children's recreational centers. By organizing groups of children walking together under adult supervision, this program promotes physical activity, enhances road safety, and builds community spirit.

Benefits:

- **Students:** Increases physical activity, enhances safety, and fosters social interaction.
- **Schools:** Reduces congestion around school premises and promotes a focus on health.
- **Community:** Decreases environmental impact and strengthens community ties.

2. Planning and Setup

Objectives Definition:

Define clear goals for the walking bus, such as increasing student safety, promoting health, and reducing traffic.

Planning Team Formation:

Assemble a team comprising school staff, parents, and community stakeholders to oversee the program implementation.

Route Selection and Safety:

Choose safe and accessible routes. Perform risk assessments to ensure paths are free of hazards. Involve local authorities if necessary to make infrastructural adjustments.

3. Implementation

Recruitment and Training of Volunteers:

Engage parents and community members as volunteers. Provide training on safety protocols, child management, and emergency response.

Scheduling and Routing:

Develop a timetable that aligns with school hours. Designate specific routes and stops where children can join or leave the walking bus.

Safety Protocols:

Implement safety measures, including high-visibility clothing for volunteers and children, and establish protocols for crossing streets and handling emergencies.

4. Promotion and Engagement

Promotional Strategies:

Use school newsletters, community boards, and social media to raise awareness about the walking bus. Host informational sessions for parents and community meetings to gather support.

Student and Parent Engagement:

Organize interactive sessions with students to explain the benefits and safety aspects of the walking bus. Encourage parents to participate in trial walks.

Community Involvement:

Involve local businesses and organizations as sponsors or supporters to enhance the program's visibility and viability.

5. Operation and Management

Daily Management:

Appoint a coordinator to manage daily operations, handle communications, and serve as the point of contact for volunteers and parents.

Monitoring and Feedback:

Regularly collect feedback from participants and volunteers to assess the program's effectiveness and identify areas for improvement.

Program Adjustments:

Make necessary adjustments based on feedback and changing conditions to ensure the program remains effective and safe.

6. Evaluation and Sustainability

Impact Assessment:

Evaluate the program's impact on student health, community engagement, and traffic patterns around schools using surveys and data collection.

Sustainability Strategies:

Develop strategies to maintain interest and participation, such as recognition events for volunteers and ongoing publicity campaigns.

Community and Environmental Benefits:

Highlight the program's success in reducing carbon emissions and traffic congestion as part of broader environmental sustainability efforts.

This manual serves as a comprehensive guide for schools, children's recreational centers, and communities interested in establishing a walking bus program. It provides instructions for every phase, from planning to sustainability. It combines best practices from various existing manuals to create an effective and practical approach to promoting active school travel. Nevertheless, it has to be mentioned that it is a generic proposal and not a specific WalkingBus project manual (e.g., in the WalkingBus project, there is no need for daily management).

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