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Solution 2: Mobility Management Packages for commuting students and employees

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1. Introduction

Solution 2 consolidates the GreenPATH pilot testing carried out for Mobility Management packages addressing home-to-work and home-to-campus commuting for both employees and students. It draws on evidence generated across seven pilot areas in five countries: the University of Maribor (Slovenia), BOKU University Vienna (Austria), the EUREF-Campus / TU Berlin (Germany) for students and the Ravenna Pilot, Monza, Osijek and Kecsekemét pilots addressing employee commuting. Together these pilots tested a common family of soft, non-infrastructural measures such as micro-incentives, gamification and technological platforms, used individually or in combination designed to shift commuting behavior without requiring major investment.

The solution emerged from a structured testing phase that followed a common process across all pilot areas, mirroring the logic of the EU Sustainable Urban Mobility Plan (SUMP) cycle: analysing the status quo, defining a shared local vision, engaging stakeholders, implementing and promoting the measure, assessing its impact, and extracting lessons for transferability. Each pilot applied this process to its own institutional and territorial context, but the underlying mechanism of change: informing, incentivizing and enabling a shift away from car-based commuting is common across all seven cases, which is what allows their results to be consolidated into a single, coherent solution rather than treated as seven unrelated local initiatives.

Its overall objective is to reduce car-dependent commuting among students and employees by combining awareness, incentives and low-cost enabling measures (such as targeted vehicle access or supporting infrastructure) into coherent packages that can be adapted to different institutional settings. Within the broader GreenPATH framework, Solution 2 sits alongside other solutions addressing infrastructure, shared mobility and public transport; it is distinguished by its focus on soft, behavioral and organizational measures that require comparatively limited investment and can be deployed relatively quickly once institutional buy-in is secured.

The solution deliberately bridges two different user ecosystems. In academic contexts (BOKU Vienna, EUREF-Campus/TU Berlin, University of Maribor), the target group is students and early-career researchers whose commuting habits are often not yet fixed and who respond strongly to peer-based and gamified mechanisms. In business and institutional contexts (Ravenna, Monza, Osijek, Kecskemét), the target group is employees with established routines, for whom employer endorsement, data-driven targeting and structural enablers (e.g. secure storage, vehicle access) play a larger role. The two ecosystems share enough structural similarity such as a defined origin population, an institutional sponsor, and fixed commuting patterns that the same underlying package logic applies to both, with the balance of measures adjusted to context.

This solution groups the tested measures into a small number of recurring mechanisms that consistently reappear across otherwise very different institutional and geographic contexts. This repetition across independent pilots was not coordinated in advance, but arrived at independently by different partners facing similar behavioral barriers. In itself, this is evidence that these mechanisms represent a genuine, transferable model rather than a set of one-off local experiments.

2. Consolidated Evidence from Pilot Testing

This chapter synthesizes pilot results across all seven participating territories and categorizes the soft measures tested into the three categories used in the GreenPATH Application Form: micro-incentives, gamification, and technological platforms. In practice, most pilot packages combine more than one category and are thereby referred to as “mixed” packages.

Pilot area	Target group	Package composition	Category
University of Maribor (SI)	Students (doctoral/postdoctoral)	Weighted-scoring participant targeting + free e-bike provision + secure bike-storage upgrade	Mixed — technological platform (scoring tool) + micro-incentive (free e-bike access)
BOKU University Vienna (AT)	Students	General awareness content + cyclist breakfast + Bike2BOKU app-based voucher challenge	Gamification + micro-incentives
EUREF-Campus / TU Berlin (DE)	Students	Co2mmuting Challenge (app, leaderboards, prizes) + cargo/e-bike testing + cycling training + repair station	Mixed — gamification + micro-incentives + hands-on service testing
Ravenna (IT)	Employees	Digital platform for sustainable home-to-work mobility combining journey planning, trip tracking, worker rewards and reservation of mobility shared services.	Technological platform (shared-mobility booking and microincentives)
Monza (IT)	Employees	Bicycle-tracking device + app rankings/challenges + local-shop voucher scheme	Gamification + micro-incentive + technological platform
Osijek (HR)	Employees	Carpooling and public-transport frequency modeling (pre-deployment)	Technological platform (planning/modeling)
Kecskemét (HU)	Employees	Demand-responsive bus line with booking app	Technological platform (service + booking)

2.1. Common trends across territories

- Measures that combine a behavioral trigger (gamification, competition, reward) with a structural enabler (guaranteed vehicle access, secure storage, a working booking platform) consistently outperform single-mechanism interventions: Maribor's combination of targeted e-bike access achieved a measured 37% e-bike commuting share, and BOKU's voucher-based challenge produced an 88% “Maintenance-stage” behavior-change rate among tracked participants.
- Tracking and data-collection tools built primarily to support a gamification or incentive mechanism (Monza, Maribor's scoring tool) consistently generate a secondary, reusable evidence base for infrastructure and service planning — a dual-purpose design pattern that recurs independently across pilots.
- Short pilot testing windows (a single semester or a few months) constrain the depth of evidence that can be collected on durable behavior change; several pilots (BOKU, Berlin, Ravenna) explicitly note that longer or recurring cycles would be needed to assess retention beyond initial activation.
- Incentive- and reward-based mechanisms (voucher schemes at BOKU, Monza, Maribor, Berlin) share a common dependency risk: their sustainability relies on the continued cooperation of third parties such as local shops and sponsors who sit outside the pilot's direct control.

2.2. Differences between territories

- Student-facing pilots (BOKU, Berlin, Maribor) rely more heavily on gamification and peer/social-media multiplier effects, since student commuting habits are less fixed and student communication channels (unions, mobility clubs, orientation-week programming) differ from employee channels.

- Employee-facing pilots (Ravenna, Monza, Osijek, Kecskemét) rely more on targeted participant selection, employer/Mobility-Manager endorsement, and data-driven planning, reflecting the more constrained but better-documented nature of employee commuting patterns.
- Technological-platform pilots divide into those that deployed a live service (Ravenna's multifunctional digital platform, Kecskemét's demand-responsive line, Monza's and Maribor's tracking tools) and those that remained at the modeling/scenario stage pending further validation (Osijek).

Overall, the pilot evidence supports consolidating these seven cases into a single solution: despite differing institutional settings, the same small set of mechanisms: incentivized competition, low-barrier vehicle access, and data-enabled targeting recurs across contexts. The conditions under which each mechanism succeeds or struggles are consistent enough to generalize into transferable guidance.

3. Value Proposition and Strategic Added Value

The Mobility Management Packages create differentiated value for a range of stakeholders involved in their design, delivery and long-term operation.

Public authorities and municipalities

- Access to granular, real-world commuting and modal-shift data (tracking apps, scoring tools, dashboards) at low marginal cost, generated as a by-product of participant engagement rather than through a dedicated survey.
- A tested, lower-cost complement to infrastructure investment that can demonstrate demand and behavior-change potential ahead of, or alongside, larger capital projects (e.g. Monza's tracking data explicitly feeding future cycling-infrastructure prioritization).

Universities and student services

- A ready-made, low-cost toolkit (challenges, vouchers, awareness campaigns, skills training) for improving campus sustainability indicators and student wellbeing without requiring new capital infrastructure.
- A channel for reaching incoming and international students during orientation week, when commuting habits are not yet fixed and interventions are shown to have disproportionate impact.

Employers and companies

- A structured way to support home-to-work travel plans and mobility manager functions with concrete, low-cost measures rather than starting from scratch.
- Demonstrated participant satisfaction and financial benefit (Maribor) that can support student engagement and wellbeing objectives alongside sustainability targets.

Mobility agencies and public transport operators

- Evidence on where gamified or incentive-based interventions shift demand away from, or towards, public transport (BOKU and Berlin both recorded shifts in stated PT use alongside cycling uptake), informing service planning.

Students and employees (end users)

- Lower financial and practical barriers to trying a new commuting mode (free e-bike access, vouchers, guided training), reducing the risk associated with a first attempt at behavior change.

- A more social, engaging commuting experience through competition, peer recognition and visible progress tracking, which pilot participants repeatedly cited as a motivating factor independent of the material reward on offer.

3.1. Governance, coordination and transnational added value

Beyond these stakeholder-specific benefits, the packages improve governance and coordination by giving mobility managers, university administrations and municipalities a shared, tested vocabulary and evidence base for commuting interventions, reducing the need to design measures from first principles. The transnational dimension adds further value: the GreenPATH co-design and peer-review process allowed pilots facing a given constraint to draw directly on another pilot's experience of the same issue for example Ravenna drawing on Kecskemét's demand-responsive experience for its own port-area planning, and on Monza's approach to engaging company mobility managers demonstrating that the value of the solution extends beyond any single pilot site to the shared learning process itself.

4. Impact Assessment

This chapter assesses the impacts generated or expected from Solution 2's implementation, distinguishing between impacts that were directly measured during pilot testing and those that remain projected pending further deployment or longer observation periods.

4.1. Environmental impacts

- Measured: University of Maribor achieved its targeted 30%+ reduction in car-based home-to-work trips among pilot participants, with at least 37% of e-bike users commuting by e-bike regularly after five months of the pilot.
- Measured: BOKU Vienna's Bike2BOKU challenge produced a stated shift from occasional to frequent/always cycling among the large majority of tracked participants (0% “always cycle” before the challenge rising to 56% after), alongside a stated drop in public-transport use.
- Measured: EUREF-Campus Berlin's Co2mmuting Challenge targeted a collective saving of 1.5 tonnes of CO_2 per edition; 57% of surveyed Winter Challenge participants reported being more active, though only 14% reported a permanent mode shift.
- Projected: modal-shift and emissions benefits from Osijek's carpooling/PT-frequency modeling and from further scaling of Ravenna's shared fleet and multi-functional digital platform remain projections pending fuller deployment and longer-term monitoring.

4.2. Social impacts

- Awareness and confidence: Berlin's cycling-training sessions measurably increased participants' confidence navigating city traffic, particularly among international students; BOKU's social-media campaign reached over 67,000 video views and nearly 32,000 unique accounts.
- Accessibility and equity: targeted, scored participant selection (Maribor) allowed limited resources (10 e-bikes) to be directed at the commuters with the highest substitution potential rather than relying on open, self-selecting recruitment.
- Behavioral change: applying the MaxSEM stage-of-change framework, 88% of BOKU's tracked challenge participants reached the “Maintenance” stage post-challenge, indicating durable stated intent to continue cycling which was the strongest behavioral-change evidence recorded across the pilots.

4.3. Governance and organizational impacts

- Several pilots' tracking mechanisms were explicitly designed to serve a dual purpose: motivating participants and generating planning-grade data thereby strengthening the evidence base available to mobility managers and municipal planners beyond the pilot's own duration (Monza, Maribor).
- The consistent application of ex-ante / interim / ex-post assessment and structured co-design across all seven pilots has itself produced a harmonized evaluation framework and a comparable KPI base that supports cross-territory learning.

4.4. Harmonized KPIs and evidence base

KPI definitions were set out in each pilot's Ex-Ante Report and tracked through the Interim and Ex-Post Reports (participation/reach, frequency of use, stated modal shift, and satisfaction, adapted per pilot to its specific measure). The Ex-Post evidence summarized above draws directly on this harmonized base. Not all pilots had reached the same stage of deployment at the time of reporting: Maribor, BOKU and Berlin report measured ex-post results, while Osijek's evidence remains largely at the modeling/scenario stage and Ravenna and Kecskemét report a mix of measured operational data and stated (survey-based) demand that has not always matched observed usage.

5. Transferability and Replication Framework

This chapter analyses the conditions required to replicate Solution 2's Mobility Management packages in a different Functional Urban Area (FUA), drawing on the transferability lessons documented across all seven pilots.

Institutional preconditions

- A clearly identified institutional sponsor (university administration, employer, or municipal Mobility Manager) able to authorize the intervention and, where relevant, physical infrastructure works at an early stage as approval delays were the most disruptive risk factor observed across pilots (notably a roughly six-month delay to Maribor's bike-storage upgrade).
- An existing or nascent mobility manager function, or equivalent coordination role, able to own the measure beyond the pilot's lifetime.

Governance requirements

- Clear allocation of responsibility for day-to-day operation (registration, voucher fulfillment, app/platform maintenance) distinct from strategic oversight, mirrored across the pilots that sustained operations beyond a single edition (Berlin's planned Winter Challenge following its Summer edition).

Technical and organizational conditions

- A working, sufficiently simple tracking or booking mechanism: registration friction was identified as the primary drop-off point at BOKU (626 initial flyer acceptances against 20 actively tracked participants) and should be minimized in any replication.
- Data-protection arrangements appropriate to whichever tracking approach is used, agreed with participants from the outset.

Financial feasibility

- Feasibility depends heavily on the cost structure of the specific measure chosen: gamification/voucher schemes require an ongoing prize or reward budget and merchant

partnerships, whereas structural measures (e-bike loan fleets, secure storage) require upfront capital but lower recurring cost.

Regulatory and legal constraints

- National or sectoral regulation of institutional benefits can constrain available incentive mechanisms. Maribor's pilot, for example, noted that Slovenian regulation does not currently enable certain forms of subsidized transport incentives for university-affiliated participants, a constraint that would need to be checked against the target jurisdiction before replication.
- Where the responsible delivery organization's mandate is legally confined to a specific administrative territory (as for Kecskemét's public-transport organizer), commuting demand extending beyond that boundary cannot be addressed without a jurisdictional or inter-institutional agreement.

5.1. Adaptation needs by FUA type

FUA / site type	Best-suited measures	Key adaptation needed
University campus (single institution)	Gamification, vouchers, cycling training, peer challenges	Align timing with academic calendar (orientation week); engage student unions/mobility clubs as intermediaries
Single large employer / industrial zone	Targeted e-bike/vehicle provision, weighted-scoring participant selection, shared fleets	Secure employer/Mobility-Manager sponsorship; align with Home-to-Work Travel Plans
Multi-employer business district / mixed campus	Combined app-based challenge + hands-on testing + repair/training services	Coordinate communication across multiple institutional stakeholders; pool incentive budgets
Peripheral / dispersed commuting catchment	Demand-responsive transit, carpooling platforms, modeling-led planning	Confirm jurisdictional mandate covers the full catchment area before committing to service design

A structured replication matrix such as the one above can support other FUAs in selecting which package elements to prioritize, but the overarching recommendation emerging from all seven pilots is to adapt rather than copy: no two FUAs share identical commuting flows, institutional arrangements or regulatory contexts, so what transfers directly is the underlying process (status-quo analysis, stakeholder engagement, phased implementation, monitoring) rather than a fixed package of measures.

6. Governance and Implementation Model

This chapter sets out a governance model for implementing and coordinating Solution 2's Mobility Management packages. Rather than proposing a single prescriptive structure, it distils the roles, coordination habits and institutional arrangements that recur across the documented pilot instances spanning both the student-facing and the employee-facing cluster into a pattern that future adopters can reuse and adapt.

6.1. Roles and responsibilities of key actors

- **Institutional sponsor**: the body that authorizes the package and holds ultimate budget responsibility. In practice this is university leadership at BOKU (vice-rectorate, informed and holding budget responsibility) and at the University of Maribor (formal decision-maker, whose sign-off is a precondition for new actions such as a subsidized student e-bike scheme); it is the municipality itself at Kecskémet (owner, local government support) Monza and Osijek (overarching public authority and lead investor). Ravenna's Action Plan proposes a two-tier sponsor structure instead —

Regione Emilia-Romagna as regional policy owner and the Municipality of Ravenna as prospective local co-funder and coordinator.

- **Mobility Manager / operational coordinator:** who owns day-to-day delivery. Where this function is clearly assigned, it takes different institutional forms such as a standing university working group at BOKU (the mobility working group, exchanging on planned interventions on an ongoing basis), a municipally-owned public transport utility at Osijek (GPP d.o.o., which both operates services and is the accountable delivery body) and Kecskemét (ITK, the local public transport provider). Where this role remains undefined such as in Berlin's and Kecskemét', it is flagged as a principal continuity risk, reinforcing that naming this role early is not a formality but a determinant of survival.
- **Technology/platform provider:** an external or in-house operator of the tracking, booking, gamification or shared-mobility system. Examples include a private bike-share technology partner in Osijek (a NextBike subsidiary providing the IT/software infrastructure), a local e-bike rental/bike shop acting as technical and financial partner in Maribor, and reliance on an existing third-party platform (STADTRADELN) in Berlin. Ravenna's Action Plan makes this role most explicit in the utilization of an operational Mobility Management tool which is a single multi-functional system combining journey planning, trip tracking linked to worker rewards, and reservation of shared-mobility services, rather than three separate tools.
- **Technical, regulatory and public-transport partners:** actors whose approval or cooperation is a precondition for delivery rather than a discretionary contribution. Osijek's Action Plan illustrates this most explicitly: the national roads authority (Hrvatske ceste) must approve infrastructure works, and the national rail operator (HŽPP) is required for integrated ticketing; Maribor's local public transport operator (MARPROM) plays an equivalent gatekeeping role for any combined e-bike/public-transport product; Kecskemét's employer partners mediate and record travel demand on the municipality's behalf; and Ravenna's replication depends on the region's EMMA / EMMA RE-R data-planning platform to standardize commuting-demand evidence before it can feed the platform's operational measures.
- **End users (students, employees):** not passive recipients. BOKU's student council (ÖH) actively supported participant recruitment for the BIKE2BOKU challenge, and Maribor's Action Plan expects students including doctoral and postdoctoral researchers to generate the usage data and word-of-mouth uptake the whole package depends on. Monza and BOKU are consistent with the wider pilot evidence of users acting as informal multipliers, and in some cases recruiting reward partners themselves. Ravenna's Action Plan treats port-area workers and their employing companies as co-producers rather than end users alone: companies are expected to contribute data, communication and co-funding, not just enrol employees.

This role pattern tracks the pilot clustering closely. Across the pilot instances, the student-facing cluster is consistently anchored by university leadership as institutional sponsors (BOKU's vice-rectorate and Maribor's University administration, with Berlin's universities and Studierendenwerk playing an equivalent (if not yet fully resolved) role) while the employee-facing cluster is anchored instead by the municipality or a municipally-owned operator: the City of Osijek together with its utility GPP d.o.o., the Municipality of Kecskemét together with its operator ITK, and the Municipality of Ravenna together with the public operator TPER. This distinction is a practical starting point for future adopters: a student-oriented package should expect to be sponsored and embedded within the host institution itself, while an employee- or commuter-oriented package should expect the municipality or a public operator to play that anchoring role.

6.2. Coordination mechanisms

A recurring planning cycle mirroring the ex-ante/interim/ex-post layout used across the pilots allows partners to review participation data, renew partnerships and adjust operations against observed rather than only anticipated demand. A single accountable contact point per institution is what makes this cycle

workable in practice. The clearest evidence for this is negative: Berlin's Action Plan explicitly names coordination across 13 + stakeholders, combined with undecided leadership, as a top risk to delivery thereby confirming, from a pilot that has not yet resolved it, why the other sites that have named a single coordinator report smoother operation.

Embedding the mobility manager function within existing institutional structures rather than treating it as a project-specific, time-limited role remains the clearest lesson for sustaining these packages beyond a pilot or project lifetime, and the evidence base now substantiates it directly. BOKU's mobility working group already sits inside a permanent university structure rather than a project team, and Maribor's requirement for formal University sign-off before any new action proceeds embeds governance into an existing institutional decision process rather than creating a parallel one. Ravenna's Action Plan proposes the most explicit embedding mechanism of any pilot: a permanent 'District Mobility Manager' function, established or designated to coordinate several companies and public stakeholders around a shared response to commuting needs in an industrial area, rather than leaving coordination to the pilot operator alone. By contrast, the two pilots that name unresolved leadership or financing as their principal risk — Berlin and Kecskemét — are also the two where this embedding has not yet happened, turning what was previously an assertion into an evidenced conclusion.

6.3. Decision-making structures and monitoring

A light-touch steering arrangement consisting of an institutional sponsor plus Mobility Manager, with periodic stakeholder consultation appears sufficient at the scale these packages operate; none of the five documented pilots required heavier, multi-tier governance to function. Osijek's arrangement, where a single municipally-owned utility (GPP d.o.o.) both delivers and is accountable for bus, bike-share and carpooling measures, and Kecskemét's arrangement, where the municipality owns the service and a single operator (ITK) delivers it, both show this light-touch model holding even where the underlying measures are public-transport interventions rather than the incentive-based packages it was first observed in.

Monitoring and evaluation responsibility should sit with whoever operates the delivery platform, since the same data stream that supports day-to-day operation is also the primary evidence source for evaluation as was the case in Monza, Maribor, BOKU (tracking participation, visibility and multiplier effects through the same channels used to run the BIKE2BOKU challenge), Osijek (their SMART performance indicators, defined per measure alongside the operational data GPP d.o.o. already collects) and Ravenna. There, the proposed monitoring framework would track home-to-work corridors, intermodal trips per user, modal and vehicle-type split, car-sharing/carpooling uptake, CO2 savings and reward redemption directly through the TPER platform's own usage data.

Taken together, the six Action Plans point to the same three-tier governance blueprint regardless of country, institution type or measure: an institutional sponsor providing legitimacy and budget, a named operational coordinator providing day-to-day continuity, and technical or private partners supplying delivery capacity the sponsor does not hold in-house. Ravenna's proposed District Mobility Manager role is a promising refinement of the middle tier for multi-employer or industrial-district contexts, where no single company or institution can act as sole coordinator and worth testing further as the model is replicated. This structure, rather than any single pilot's arrangement, is put forward as the transferable governance model for future adopters of Solution 2.

7. Communication and Stakeholder Engagement

This chapter describes the strategic communication and stakeholder engagement approach that supported deployment of Solution 2's packages across the pilots, and the recommendations that follow for scaling it further.

7.1. Communication

- Build initial awareness of the measure and the benefits; reduce uncertainty about how to participate and, for gamified/incentive measures, sustain engagement throughout the challenge period through visible progress and reward information.
- Students respond most strongly to channels outside standard institutional communication: student unions, mobility clubs, campus social media, and peer/word-of-mouth networks. BOKU's flyer-and-QR-code campaign, reinforced by an Instagram/Facebook "role model" strand, reached over 67,000 video views and generated a documented peer-multiplier effect (each engaged participant informing an average of 6.44 further students).
- Employees respond more strongly to employer-mediated channels: internal communication, Mobility Manager outreach, and direct engagement through HR or facilities departments, as used across Ravenna, Monza, Osijek and Kecskemét.
- Physical: flyers and posters at high-footfall points (bus stops, campus entrances), on-site info screens, physical events (Berlin's EUREF Sommerfest).
- Digital: dedicated challenge apps with leaderboards and progress dashboards, social media (Instagram, Facebook), newsletters, and QR-code-based registration.
- Interpersonal: cyclist breakfasts, focus groups, peer role-model content, and word-of-mouth networks explicitly leveraged as a low-cost extension of formal outreach.
- Communication for gamified pilots was explicitly linked to rankings, rewards and feedback loops, giving participants a continuous reason to re-engage; communication for service-oriented pilots (shared fleets, demand-responsive transit) instead focused on clarity of access — how, when and why to use the service.

7.2. Stakeholder engagement and long-term awareness-building

- Awareness → activation → retention: pilots that treated these as distinct phases with tailored content (e.g. Berlin running a Summer and a planned Winter edition, incorporating lessons from the first) sustained engagement more effectively than one-off campaigns.
- Time interventions to moments when commuting habits are not yet fixed such as orientation week/start of semester for students or onboarding for new employees since this consistently produced disproportionate impact relative to comparable mid-cycle campaigns.
- Design campaigns as recurring/seasonal rather than one-off: this was the single most-cited lesson across pilots for converting short-term activation into a lasting habit.
- Simplify the registration-to-participation journey: BOKU's steep drop-off between initial interest (626 flyer acceptances) and active tracked participation (20) points to onboarding friction as the main barrier to address before scaling communication reach further.

8. Policy Integration and Alignment

This chapter outlines how Solution 2 integrates into broader policy frameworks. All seven pilots followed the same implementation sequence: status-quo analysis, common vision, stakeholder engagement, implementation, impact assessment, lessons learned. This mirrors the four phases of the EU SUMP cycle (preparation and analysis; strategy development; measure planning; implementation and monitoring). The

alignment is intentional as it allows this Solution's results to feed directly into an existing or future SUMP as tested input to the employer- and commuter-mobility-management component, and allows FUAs that already have a SUMP in place to reuse the GreenPATH process as a ready-made template rather than developing a comparable methodology from scratch.

8.1. Alignment with Sustainable Urban Mobility Plans (SUMPs)

In every documented case, the pilot's measures map onto an existing SUMP or SUMP-equivalent plan rather than requiring a new one: Maribor's SUMP (2026–2033) sets an explicit sustainable-mode target that the pilot's actions are designed to feed into directly; Vienna's city development plan (updated April 2025) prioritizes the same cycling-network expansion that BOKU's infrastructure actions support; Berlin's StEP MoVe 2030 sets a city-wide sustainable-mode-share target (74%→82% by 2030, cycling 18%→23%) that its actions are framed against; and Osijek's regional Transport Master Plan of the Functional Region of Eastern Croatia (to 2030) and local Development Strategy of the Urban Agglomeration of Osijek (to 2027) are matched, measure by measure, in a compliance matrix. Kecskemét's own Sustainable Mobility Plan is explicitly named as remaining a valid basis for its pilot even though the pilot itself was not designed against a single dedicated action plan. Ravenna's pilot maps instead onto the region's Mobility Management data platform and the company-level Home-to-Work Travel Plans that Italian law already requires of large employers, positioning the chosen digital platform as the operational layer that turns those existing planning instruments into concrete services.

8.2. Documented policy alignment by pilot cluster

8.2.1. Pilot 2 — commuting students: Berlin, Maribor, Vienna

- Maribor: the municipal Sustainable Urban Mobility Plan (SUMP, 2026–2033); the national Act on Integrated Transport Planning (ZCPN, 2022); the University of Maribor's own sustainability commitment (recognized through the Times Impact Rankings); and the national 'Polni zagona – kolesarimo v službo' cycling-to-work campaign, funded through LIFE IP CARE4CLIMATE and the Ministry of Environment, Climate and Energy, which the pilot builds on rather than duplicates.
- Vienna (BOKU): the national Mobilitätsmasterplan 2030 (Austrian Federal Ministry for Innovation, Mobility and Infrastructure, 2021), which explicitly calls for mobility management and awareness-raising alongside infrastructure measures; the City of Vienna's updated city development plan (April 2025), prioritizing expansion of the main cycling network; and BOKU University's own sustainability strategy, targeting climate neutrality by 2030 and framing staff mobility choices around a stated 'role-model effect'.
- Berlin: StEP MoVe 2030, the city's integrated transport planning framework, alongside its Radverkehrsplan (cycling network and parking expansion) and draft Fußverkehrsplan (Vision Zero, pedestrian safety); and the city's climate targets (–70% CO_2 by 2030, climate neutrality by 2045), against which the pilot's actions on newcomer and student cycling uptake are explicitly framed.

8.2.2. Pilot 3 — commuting employees: Ravenna, Kecskemét, Osijek, Monza

- Osijek: the regional Transport Master Plan of the Functional Region of Eastern Croatia (to 2030), whose objectives on urban/regional mobility, modal shift and public-transport competitiveness map directly onto the pilot's three measures; and the local Development Strategy of the Urban Agglomeration of Osijek (to 2027), specifically its objective on transport and information connectivity.
- Kecskemét: the city's Sustainable Urban Development Strategy (to 2030), TOP Plus Urban Development Program, Green Infrastructure Development and Maintenance Action Plan, Climate Strategy, existing Sustainable Mobility Plan, and Environmental Program — the pilot is explicitly

framed as extra transport-organization experience that feeds into, rather than sits outside, this existing suite of local strategies.

- Ravenna: Italy's national MASE urban-mobility and emissions-reduction funding stream (a potential financing route for the pilot's continuation, eligibility still to be validated); the regional EMMA / EMMA RE-R Mobility Management data platform, which standardizes commuting-demand data for Home-to-Work Travel Plans (PSCL); the PSCL / corporate Mobility Management framework itself, which Italian law already requires of large employers; and Regione Emilia-Romagna's wider regional infomobility and sustainable-mobility policies.
- Monza: policy alignment not yet confirmed with this partner; to be compiled from its Ex-Ante/Ex-Post reporting and local SUMP or company travel-plan references once available.

8.3. EU policy frameworks and climate neutrality

At EU level, Solution 2 contributes to the objectives of the European Green Deal and the EU Urban Mobility Framework by demonstrating low-cost, rapidly deployable measures that support modal shift away from private car commuting complementing the longer-lead-time infrastructure and public-transport investments addressed by other GreenPATH solutions. Osijek's larger infrastructure measures additionally draw on EU structural funds (2028–2034) and the Integrated Territorial Program mechanism, and Ravenna's continuation looks to Italy's national MASE urban-mobility and emissions-reduction funding stream, illustrating that the same EU- and national-level framing supports the low-cost behavioral end of Solution 2, its platform/service-based measures, and its higher-cost infrastructure-adjacent measures alike.

Across all pilots, the same three-tier alignment recurs regardless of country, institution type or measure: an EU-level framework (Green Deal, Urban Mobility Framework, structural or Interreg funding, or national streams such as MASE), a national or regional strategy or legal basis (mobility masterplans, transport master plans, integrated-planning acts, or regional data platforms such as EMMA/EMMA RE-R), and a city or institutional plan (a SUMP, a university sustainability strategy, a company travel plan, or an equivalent local strategy). This three-tier mapping including the own institution, city/region, and national/EU framework is put forward as the transferable first step for any future adopter of Solution 2: in every documented case the alignment already existed in practice and mainly needed to be made explicit.

9. Financial Sustainability and Long-Term Roadmap

This chapter sets out the financial evidence available across the pilots and synthesizes it into a transferable roadmap for financing Solution 2, rather than a costed plan for any single site. Cost data is uneven in maturity across pilots so the figures below should be read as illustrative of scale and pattern rather than as a definitive budget.

9.1. Two distinct cost profiles

Low-cost behavioral measures such as mobility management staffing, awareness campaigns, gamification and cycling courses sit in the tens-of-thousands-of-euros-per-year range. Infrastructure-adjacent measures sit an order of magnitude or more higher. The cost scale of a given measure tracks its type (behavioral/incentive versus physical infrastructure) far more than it tracks the country, pilot size or institution involved. This is a practical planning distinction for future adopters: a Solution 2 package built primarily from the low-cost behavioral end can be resourced from a single institution's operating budget, while any infrastructure component should be planned and financed as a separate, longer-lead-time work stream.

This distinction also tracks the pilot clustering: the student-facing Pilot 2 cluster (BOKU, Berlin, Maribor) consists of campus-based behavioral and awareness measures costed, where figures exist, in the tens of thousands of euros; the employee-facing Pilot 3 cluster spans a wider range. From Ravenna's recurring platform-and-fleet operating cost (on the order of €100,000/year) through to Osijek's and Kecskemét's

business-zone infrastructure and public-transport-service interventions, which can run several orders of magnitude higher. Future adopters should treat this as a planning signal rather than a fixed rule Monza is a great example that an employee-oriented package need not always require infrastructure but it is a reasonable starting assumption when scoping a new site against one cluster or the other.

9.2. Recurring funding-source pattern

Across all pilots, financing draws on the same three sources in combination: (i) the host institution's own operating budget; (ii) municipal or regional public co-financing; and (iii) EU or national grant instruments. In no pilot are the pilot's own project resources expected to cover more than the smallest-scale awareness activities. Durable financing consistently requires tapping at least one of the two external sources above; This is the core funding blueprint for future adopters: budget for institutional operating funds to cover the behavioral core, and identify the relevant regional/EU co-financing channel early for anything involving infrastructure.

Continuation financing beyond the pilot or project period is the most frequently unresolved item in the evidence base, rather than an issue specific to any one site. This consistency across otherwise very different pilots suggests continuation financing is a structural risk of this type of project-funded pilot, and should be planned for explicitly rather than assumed to resolve itself.

9.3. Long-term financial roadmap

Phase 1 — pilot and test: fund low-cost behavioral measures from the host institution's existing operating budget. This is both the fastest measure type to deploy and, per the evidence above, the one with the lowest financial risk. It is consistent with Solution 2's wider thesis that low-cost, non-infrastructure measures are the most readily transferable starting point.

Phase 2 — institutionalize: before scaling, convert the pilot coordination role into a funded, permanent line within the host institution's budget (linking to the institutional-embedding lesson in Chapter 6), since undefined post-pilot financing and undefined post-pilot leadership are recorded together as the same underlying risk at the sites where either remains open.

Phase 3 — scale and infrastructure: pursue blended co-financing (municipal/regional budget plus EU structural or national funds) only once Phases 1–2 are secure, since infrastructure-adjacent and platform/service-continuation measures alike carry longer lead times and larger sums than the behavioral core.

The single clearest recommendation from the evidence base is to secure an explicit continuation-financing commitment before pilot or project end: every site that has not yet done so identifies it as its greatest sustainability risk, while sites that have (BOKU's approved mobility-manager budget) report no equivalent concern.

10. Strategic SWOT Analysis

This chapter presents a solution-level SWOT analysis, synthesized from the pilot- and pathway-level SWOT analyses conducted across the seven pilot areas, focused on scalability, institutional embedding and market readiness.

Strengths	Weaknesses
Low capital cost relative to infrastructure solutions; fast to deploy; strong, repeatedly-documented engagement and satisfaction; demonstrated modal-shift results in several sites (Maribor, BOKU); reusable participant data as a planning by-product	Strong dependence on favorable weather and season; reliance on third parties (local shops, sponsors) for reward fulfillment; short testing windows limit evidence on long-term retention; results concentrated among already-motivated users, with lower conversion of habitual car users

Opportunities	Threats
Recurring/seasonal program design to convert activation into habit; integration with public-transport ticketing for weather-resilient combined offers; scaling to additional faculties, campuses or business zones; integration into SUMPs and company travel plans; data generated can inform future infrastructure prioritization	Declining engagement once novelty wears off; regulatory/legal gaps in some jurisdictions limiting employer-provided incentives; organizational resistance or approval delays (observed to cost pilots several months); funding discontinuity once project support ends

The consistent recurrence of the same strengths, weaknesses, opportunities and threats across seven independently-run pilots is itself evidence of a structurally sound, scalable model: the mechanisms that work (incentive + structural enabler combinations) and the risks that recur (third-party dependency, seasonality, short pilot cycles) are predictable enough to be planned for in advance, rather than being pilot-specific surprises. The main condition for scaling is institutional embedding. Moving the Mobility Manager/coordination function from a project-funded, time-limited role into a standing institutional responsibility and market readiness in the sense of reliable, willing third-party partners (reward sponsors, e-bike suppliers, platform vendors). By doing that, exposure to the third-party dependency risk identified above reduces.

11. Conclusions

Pilot testing across seven Functional Urban Areas spanning university campuses and employer/industrial settings in five countries provides consolidated, consistent evidence that low-cost, non-infrastructural Mobility Management packages, combining micro-incentives, gamification and technological platforms, can produce measurable shifts away from car-based commuting. The clearest results, namely a 30%+ reduction in car-based trips and 37% e-bike commuting share at the University of Maribor, and an 88% durable “Maintenance-stage” behavior-change rate among BOKU Vienna's challenge participants were achieved where a behavioral trigger was paired with a structural enabler such as guaranteed vehicle access.

The added value of these Mobility Management Packages as a coherent, transferable model lies not in any single measure but in the recurrence of the same mechanisms, benefits and risks across seven independently-designed pilots: this consistency is what elevates the packages from local experiments to a genuine, transferable solution. They contribute to sustainable mobility transformation at FUA level by offering public authorities, universities and employers a rapidly deployable complement to longer-lead-time infrastructure investment, while generating reusable planning data as a by-product of participant engagement.

The transnational dimension has been integral to this solution's development: structured co-design and peer review allowed pilots facing a shared constraint such as third-party reward dependency, short testing windows, registration friction to draw directly on one another's experience, even across different institutional contexts and target groups. This shared learning process is itself part of what is being offered for replication, not only the individual pilot measures.

Long-term behavioral change and institutional innovation are best supported by embedding the coordination function (Mobility Manager or equivalent) within standing institutional structures rather than project-limited roles, and by designing incentive and gamification measures as recurring, seasonal programs rather than one-off campaigns which was the single most consistently cited lesson across all seven pilots.