



METAMORPHOSIS FACT SHEETS

Munich

Implemented measures of the Metamorphosis Project 2017 - 2020



Acknowledgements:

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Implementations of the measures, and contents of the fact sheets: The cities of Munich, Alba Iulia, Graz, Southampton, Tilburg, Merano and Zurich
Preparation, coordination, compilation and editing: synergo GmbH, Zurich
Final editing: Dr. Alan Wong, University of Southampton
Layout: Breda University of Applied Sciences

Explanation

How to read the fact sheets

Outcome

The result describes how the measure was implemented in the respective city, the findings and details. How many times the measure was implemented, if it has been adapted or the number of persons reached.

Impact

The impact relates to the three project objectives set. The degree of achievement of the objectives is indicated in three stages (number of coloured elements). One: low impact; two: middle impact; three: high impact.



2 of 3 coloured.
impact level:
middle

Child friendliness: What impact does the measure have on child friendliness? How does the measure change the environment for children, in the short and long term?



1 of 3 coloured.
impact level:
low

Strengthening of neighbourly relations: How does the measure affect living together? Can the measure strengthen the relationship in the neighbourhood? Are people brought together?



3 of 3 coloured.
impact level:
high

Promotion of active mobility: How does the measure affect mobility behaviour? Is cycling and walking (and other non-motorised transportation) encouraged?

Process

Description of the individual steps for successful implementation (chronological order).

Implementation Details

Implementation details more or less indicate how much effort the measure involves. Both financial and personnel (time). It also indicates how far the measure can be extended to the geographical level.



2 of 3 coloured.
average effort:
two man-weeks

Personnel / time effort:

How many hours must be spent to plan, implement and evaluate the measure?

Indicated in working weeks, in three gradations: low (less than one week of individual work) average (two man weeks or more, collectively) and high effort (several parties and man-months of effort required).



1 of 3 coloured.
Typically for
just a street or
square.

Geographical extension of the measure:

How large is the effect?

Specified in three gradations:

- Typically for just a street or square.
- Wider neighbourhood impact or area
- Potentially city-wide application.



Costs for material, third-party costs and maintenance:

Graduated in three categories (number of coloured € signs).

1: 0 - 1000 €

2: 1001 - 15,000 €

3: more than 15,000 €

Valuation

The rating is on a scale of one to four, indicated in the symbol of a butterfly. The rating refers to cost-benefit, i.e. what is the effect of the implementation measured in terms of effort.

Recommendations

Based on the mistakes and experiences, the three most important suggestions were formulated as top tips. They should help to implement the measure successfully.

More information: <http://www.metamorphosis-project.eu/>



METAMORPHOSIS

INTERACTIVE WALKING GAME - MUNICH

The game "kreuz & quer" is designed **to motivate children** and their families **to actively walk or cycle** in their everyday life. The goal is to **collect as many kilometres as possible** by finding and scanning small boxes scattered around the neighbourhood (45 boxes in total) with a **personal RFID card**. RFID cards and flyers with a map of the neighbourhood are **distributed via schools or public libraries** for free. The game lasts about seven weeks. An **online ranking** shows which team is in the lead, and the best teams get awarded in a special ceremony at the end.

Outcome

The game was very **well received** and the level of **active mobility was much higher during the game** than previously. The 1,935 active participants of the first implementation cumulated 72,000 kilometers on foot. Most users wished for another implementation in the future. Children and their families were **highly motivated to collect points**. **Engagement and interaction have improved**; the game proved to be subject of many conversations. However, **several boxes were stolen** and some reinstalled next to another box to score more points. Some participants also cheated by using a car instead of walking or cycling.

Impact

Child-friendliness



Increase of neighbourhoodness



Promotion of cycling and walking

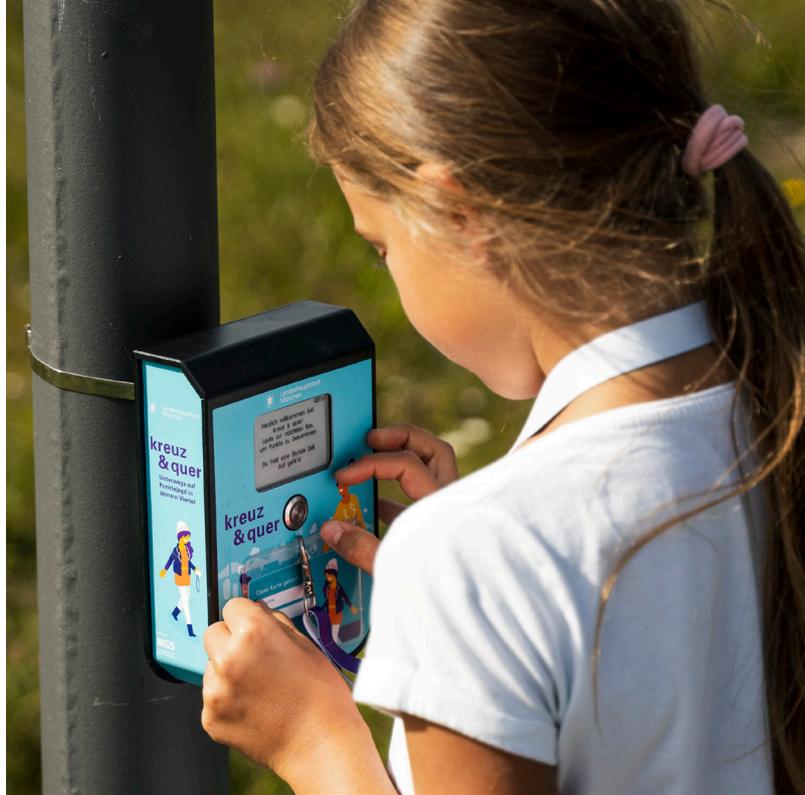


Children were **motivated to play outside** without active engagement of parents and teachers. They were motivated to meet and spend time together outside school time. People **talk about the game**, children get **to know each other**, and identification with their own neighbourhood grows. Additionally, participants **discover** new interesting places.

Cycling and walking has **improved**, as data from surveys reveal.

Process

1. Public tender/allocation.
2. Choice of an appropriate neighbourhood and places to set up the boxes.
3. Organisation of renting transponder boxes and chips.
4. Design and programming of the boxes and website.
5. Inform schools and parents about the project, and launch the project website.
6. Setting up transponder boxes and hand out RFID chips in schools, youth clubs etc.
7. Implementation of the competition, press/media work.
8. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Wider neighbourhood impact or area level.



Investment cost: € 1,000 per box, € 1 per RFID card, € 12,000 for designing flyers, posters, homepage. Yearly operating costs: € 20,000 for the homepage and software; € 2,000 for dissemination material (flyers etc.).

Valuation



The effects on participants were much **higher than expected**; the achieved kilometres and participants numbers outperformed expectations by far. Participants' **feedback was very positive** and the awards ceremony was well attended.

Recommendations

1. Involve **local stakeholders** (schools or public libraries) in the process at an **early stage**.
2. The game and its **framework conditions are complex** (e.g. software, game conception, stakeholder involvement, data protection, legal issues etc.). It is also about developing the game **continuously**.
3. **Data safety** is very important, especially as children are involved.

Contact: www.kreuzundquer.de | City of Munic

More information: <http://www.metamorphosis-project.eu/>



EU Metamorphosis Project



The project leading to this application has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723375.



METAMORPHOSIS

WALKING BUS - MUNICH

The “walking bus” of Munich consists of small groups of **elementary school students** on their way to school. Every morning the children meet at a “**bus stop**”. **Together they walk to school**, picking up other children along their “bus route”. The **children each play a different role**, e.g. bus driver or ticket inspector, and parents also accompany the group. When at school, the **children pin a white sticker** on a grey rabbit poster designed for this purpose. Step by step, the rabbit turns white again, as walking instead of being taken by car to school **contributes to cleaner air**.

Outcome

Parents support the walking bus because it is a good opportunity for them to network with each other. The **parents take turns as supervisors**. The aim of the initiative is that children get to know the way to school well, and learn to look after each other, so that **they can go to school independently** after a few weeks. Currently, **53 primary schools are taking part**, corresponding to **one third of all primary schools in Munich**. In school year 2017/2018, 613 children registered for the walking bus, rising in school year 2018/2019 to 666 children registered.

Impact

Child-friendliness



The project contributes to the **reduction of pick-up and drop-off traffic** at schools. Thus, **children feel safer** in the neighbourhood.

Increase of neighbourhoodness



Reducing the school traffic contributes to a **calmer neighbourhood**. The project helps neighbouring families to get **to know each other** and support each other.

Promotion of cycling and walking



The project **encourages children** in a playful manner **to walk** to school together.

Process

1. Send information letter to all primary schools.
2. Inform parents about the walking bus, e.g. via mail or presentation at the parents’ evening.
3. Open up registration for participation.
4. Hold a parents’ evening to provide further information on the procedure (travel routes and groups) and the parents in charge.
5. Promotion and press/media work.
6. Start the “walking bus”, including rabbit poster.
7. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Potentially city-wide application.



Yearly operating costs: € 48,000 for the implementation.

Valuation



The walking bus is an **effective and yet playful** way to encourage active travel to school and bring neighbours closer. It can be **easily transferred** to other municipalities. However, the **commitment** of the school management, teachers and above all parents is **crucial to the success** of the project. For this, continuous **personal contact and motivation is needed**.

Recommendations

1. You need **parents and teachers** to get **involved**. It is thus important to inform them at an early stage of the project.
2. **Promotion needs personal contact** for more reliability.
3. Keep motivating the children by creating incentives, for example combine it with **competitive activities**, such as a competition between schools.

Contact: City of Munich | bianca.kaczor@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



EU Metamorphosis Project



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METAMORPHOSIS

BIKE TO SCHOOL COMPETITION - MUNICH

“Bike to school” is a **three-week competition** which **encourages students to cycle** actively to school instead of being brought by car or using public transport. Students, teachers and parents **compete as a team** for their school against other schools. Each team nominates a team captain. The aim is to **cycle as many kilometers as possible**. All kilometers cycled are **listed online**. All participating schools receive a certificate for participating.

Outcome

Experience has shown that it makes sense to categorize the competition. **The schools are awarded** in the following three categories: team with the most kilometers cycled, most kilometers cycled per member, and the largest membership. In 2019, **855 people participated** in 42 teams who have **cycled 177,364 kilometres together**. The idea is that the event is held once a year before the summer holidays. However, this depends on the financing, as the budget will be renewed annually.

Impact

Child-friendliness



The project contributes to the **reduction of pick-up and drop-off traffic** at schools. Thus, **feeling of safety** for children is improved in the neighbourhood.

Increase of neighbourhoodness



The project is about **team performance and encouragement** of active togetherness. It might also **promote joint leisure activities**.

Promotion of cycling and walking



The main aim is to **motivate** more children and young people, their parents and teachers **to cycle** to school, and in their free time.

Process

1. Public tender/allocation.
2. Preparation: concept and communication measures.
3. Preparation of the website.
4. Sending information letter to schools to inform teachers and parents about the project.
5. Press/media work.
6. Running “bike to school” competition.
7. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Potentially city-wide application, if most schools involved.



Yearly operating costs: € 25,000 to € 30,000.

Valuation



The feedback of the participants was quite positive. An annual repetition is therefore planned. Other municipalities in the region **have already joined the campaign**. While the **principle is simple**, the **success also depends on the technical implementation**. Support is comparatively time-consuming.

Recommendations

1. The **registration process** for participants needs to be **quick and easy**.
2. Promotion needs **personal contact** for more success.
3. Keep motivating the participants by **creating incentives**, for example with an award for the winner.

Contact: City of Munich | merle.schroer@muenchen.de | <https://www.stadtradeln.de/schulradeln-bayern>

More information: <http://www.metamorphosis-project.eu/>



EU Metamorphosis Project



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METAMORPHOSIS

SCHOOL TOUR - MUNICH

The "school tour" is a **half-day join-in workshop** held for 5th- and 6th-graders by external experts. At each workshop, two to three classes participate. First, the **classes compete in an interactive quiz-show** about road-traffic and respectful mobility. After that, some **exercises in balance and skills on the bike are performed** in the school yard. A mechanic shows the children **how to do small repairs** on the bikes and **checks their bikes for safety**. The workshops are designed to reinforce the knowledge and learning from the bicycle safety test that pupils achieved in the 4th grade, as well as teaching them **advanced technical know-how**.

Outcome

In school year 2017/2018, **54 classes registered**, while in 2018/2019 **17 school classes** registered. Due to the **high demand** from schools, it is planned to reinstall the offer again. In an evaluation (questionnaire) the teachers could confirmed there was a **stronger awareness** among the children **about cycling**.

Impact

Child-friendliness



The project contributes to the **reduction of pick-up and drop-off traffic** at schools in the morning by encouraging children **to cycle safely and independently** to school.

Increase of neighbourhoodness



The project might **contribute to students cycling to school together**, but this it is not the main focus.

Promotion of cycling and walking



The main aim of the project is **to enable and motivate students to cycle to school** (and in their free time) **safely and independently**.

Process

1. Find experienced educational staff (external allocation).
2. Preparation: scheduling workshops.
3. Sending information letters to all secondary schools via municipal school list.
4. Registration of interested schools.
5. Implementing "school tour" at different schools.
6. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Potentially city-wide application, if most schools involved.



Yearly operating costs: € 40,000 for the implementation.

Valuation



The project has more of an **in depth** than in width focus. The implementation is relatively **personal** and thus cost-intensive. However, the topic is very important as more and more students are **not safe while cycling**.

Recommendations

1. You need **school management and teachers involved**.
2. **Experienced educational staff** ensures the quality of the project.
3. Consider that **not every child has their its own bicycle** (possibly provide bikes or ensure that two or three children share a bike).

Contact: City of Munich | bianca.kaczor@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



EU Metamorphosis Project



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METAMORPHOSIS

CYCLING RALLY - MUNICH

The cycling rally is a full-day **interactive** course to encourage **physical and mental fitness**. Children can trace a route of up to 25 stations by bike, accompanied by parents, friends or independently. Each station has an action or puzzle-solving task. For every task, **the children receive a stamp** in their "log-book". The rally is not a competition. It is all about having fun together. **All participants** who finish the course are **winners** and will be **awarded a certificate**. The rally is organised in the neighbourhood of Riem, where many people with a migrant background live. The event brings people together, so neighbours get to know each other.

Outcome

In 2018, **600 children and young people**, from the age of 4 to 14 years participated (together with their accompanying parents).

The cycling rally was **rated very positively**, as a postcard survey showed. Regarding the logbooks collected, there were no negative feedback. Nevertheless, a repetition is currently not planned.

Impact

Child-friendliness



The event has **no direct influence** on the design of the neighbourhood but on the **social interaction** within the area.

Increase of neighbourhoodness



A **joint action** such as this helps people to come together in conversation and **improve the social cohesion** in the neighbourhood.

Promotion of cycling and walking



The bicycle is **used** here **primarily as a leisure device**, less as a means for day-to-day travel.

Process

1. Preparation: concept and communication measures.
2. Preparation of the website.
3. Sending direct mail advertising to all households within the neighbourhood.
4. Press/media work.
5. Running cycling rally competition.
6. Analysis and evaluation.



Average effort, collectively - two man-weeks or more.



Wider neighbourhood impact or area level.



Investment cost : € 42,000

Valuation



Above all, the **implementation requires sufficient space and time** for organisation and coordination with local associations. Weather-dependence makes planning rather difficult.

Recommendations

1. Implementation (and the number of participants) is very **weather-dependent**, so consider an alternative date.
2. Involve **local clubs and associations**.
3. The stations of the course should be **easy to find and the number should be appropriate** – otherwise the rally takes too long.

Contact: City of Munich | anja.grade@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

CYCLING TOUR AND BIKE WORKSHOPS - MUNICH

For some years now the city of Munich has been offering **guided bicycle tours** to its new residents to get to know the city. On a **special family tour**, parents can **explore** their new neighbourhood together with their children. A professional tour guide informs them about central places, and provides tips about the neighbourhood. Participants also **learn about important traffic regulations** and **safe cycling** with children. During two longer breaks around playgrounds, the participants have time to play and rest. Also families have **the opportunity to participate in separate bike workshops**.

Outcome

Unfortunately, the guided family bicycle tours had to be **cancelled because no further participants came forward**. The bike workshop still went ahead in October 2019. Although the number of participants was not very high, these workshops themselves were **well received**.

Impact

Child-friendliness



The cycling tour is about **communication** and **showing existing infrastructures**. The workshops were implemented in school yards and **did not affect** the neighbourhood.

Increase of neighbourhoodness



The tour **can help to connect** neighbouring families. During the workshop, parents and children connected.

Promotion of cycling and walking



The tour **encourages** families to **discover** Munich **by bicycle**, and show them green, quiet routes and nice places to rest. Workshops empower families to **repair and use** bicycles.

Process

Family bike workshop:

1. Find a school or a suitable space to implement the workshops.
2. Develop concept.
3. Promote workshops amongst families.
4. Implement the workshops.
5. Analysis and evaluation.

The family bike tours are now cancelled.



Low effort, typically individual - less than one man-week.



Potentially city-wide application, if most schools involved.



Investment cost bike workshop: € 9,000 for the concept, € 2,400 for information material. Yearly operating costs: per workshop (children bikes, helmets and transportation): €1,000, information material € 250 and evaluation € 300.

Valuation



The family bike tour unfortunately did not work out, but with a **stronger application** and another player, e.g. a district store, the idea **could be quite successful**. Also the bike workshops were not too successful, because there were only a **few registrations**.

Recommendations

1. Good **promotion** for the event is the **most important** thing.
2. It is absolutely necessary to **include time for resting and playing** for the children during the tour.
3. Figure out **where** workshops and cycling **promotion are needed**.

Contact: City of Munich | merle.schroer@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

ON YOUR BIKES – READY – GO! - MUNICH

“On your bikes - ready - go!” is an **all-day workshop** in school held for 4th-graders by external experts. Two to four classes participate. Beforehand, the children receive **quiz questions** on cycling. During the school workshop, **balance, coordination and skills** on the bike in everyday and hazardous situations are practiced. A **bike mechanic** teaches the children how to do small repairs and how to check the functioning and safety of their own bikes. The project complements the **police’s junior traffic training**. The project focuses at developing psychomotorical skills of children to ensure **safe cycling**, and not at deepening theoretical knowledge.

Outcome

In 2017, **36 classes participated**, with a total of **665 students**. In the first half of 2018, 20 classes with a total of 419 students participated.

The feedback is **very positive** and the demand for the project is still high and exceeds the supply. At the moment, the City is considering expanding and developing the project further.

Impact

Child-friendliness



The project contributes to the **reduction of pick-up and drop-off traffic** at schools in the morning by **encouraging children to cycle** safely and independently to school.

Increase of neighbourhoodness



The project might **contribute to students cycling to school together**, but this is not the main focus.

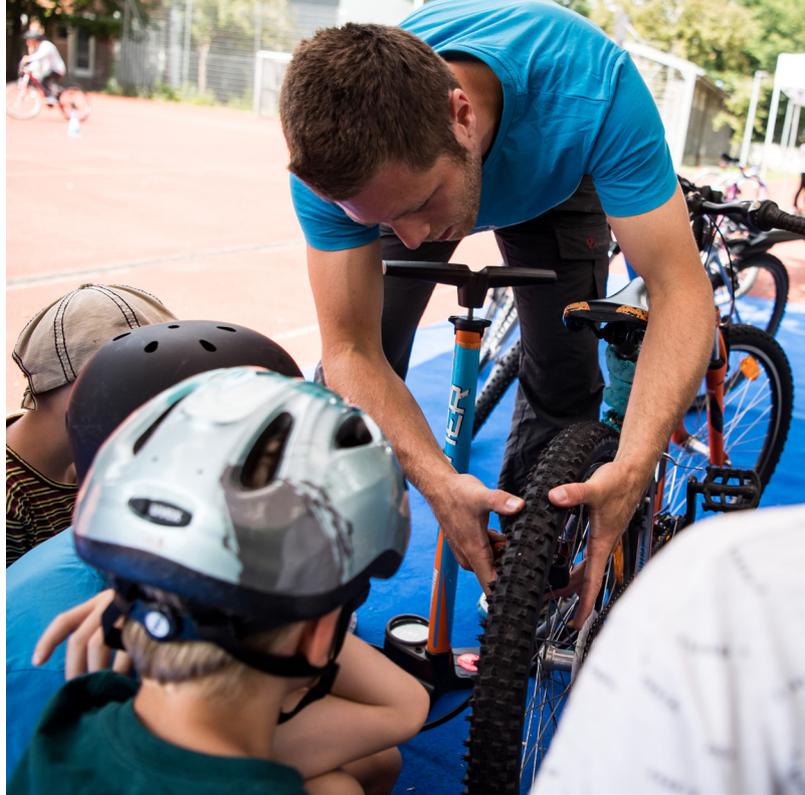
Promotion of cycling and walking



The main aim of the project is **to enable and motivate students to cycle to school** (and in their free time) safely and independently.

Process

1. Public tender/allocation.
2. Communication: send information letters to all primary schools via municipal school list.
3. Registration of interested schools.
4. Preparatory planning: scheduling workshops, material procurement.
5. Send preliminary information for teachers including a quiz for homework.
6. Implement project at different schools.
7. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Potentially city-wide application.



Yearly operating costs: € 20,000.

Valuation



The project has more of an **in depth** than in width focus. The implementation is relatively **personal** and thus cost-intensive. However, the topic is very important as more and more students are **not safe while cycling**.

Recommendations

1. You need **school management and teachers involved**.
2. **Experienced educational staff** ensures the quality of the project.
3. Consider that **not every child has their own bicycle** (possibly provide bikes or ensure that two or three children share a bike).

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More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

CYCLING TRAINING TOOLBOX - MUNICH

This toolbox **empowers teachers** to develop cycle training independently. The box helps them to guide their students through different **practical cycling exercises**, focussing on balance, coordination and skills. In the box, various movement **materials and exercise aids** e.g. traffic cones, quoits, foam balls and batons are included. A **guidance document** on use is also enclosed. The toolbox is available to schools for a three week lending period. The box is delivered to the teachers who are briefed on the correct use of the box. The toolbox gives teachers a **nudge to integrate the topic** of cycling with **little effort** in their lessons.

Outcome

This measure is **easy to implement**: If a teacher is interested in the implementation, the box is brought to them and explained. The box can be borrowed for up to three weeks before it is picked up again. Although the hurdle for the teachers is small, the offer is currently **still little used**. The offer works better if an external expert conducts the training.

Impact

Child-friendliness



The toolbox serves to **develop personal skills** for children, but is not seen as **beneficial in a spatial context**.

Increase of neighbourhoodness



The toolbox serves to **develop personal skills** for children, but is **not seen in a social context**.

Promotion of cycling and walking



The toolbox serves to **acquire and train** children's cycling skills and competences **in a playful manner**.

Process

1. Preparation: selection of tools and materials, and development of the lending concept.
2. Sending information letters to all primary schools via the municipal school list.
3. Registration of interested schools.
4. Lending toolbox to schools/teachers.
5. Analysis and evaluation.



Low effort, typically individual - less than one man-week.



Potentially city-wide application.



Investment cost per box: € 2,000.

Valuation



The measure is easy to implement, subliminal in nature and has a **direct impact on children**. In addition, the investment and personnel **costs are low**. The hurdle is to advertise the offer at schools and motivate them to use the box.

Recommendations

1. **Good promotion** for the box is the most important thing.
2. Implementing an **online loan system** could be very helpful to simplify the loan process.
3. A **general introduction** on how to use the toolbox can be useful for the teachers.

Contact: City of Munich | sophie.knechtel@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

MOBILITY TRAINING TOOLBOX - MUNICH

This toolbox for mobility training enables **nursery school teachers** to introduce the subject of sustainable mobility at the nursery level in a **playful manner**. The box contains various play and experiment materials, for example puppets, slacklines, magnifying glasses and inch rulers. A number of **ideas for exercises** and projects are also presented in the form of a handbook. The toolbox is available to nursery schools for a four to six week lending period. Interested schools can register by e-mail or telephone.

Outcome

The toolbox was **very well received**: about 20 nurseries booked the toolbox per year, and the 10-year anniversary was celebrated in 2017. The feedback by the nurseries was **very positive** and currently there is no need for a redesign. There are plans to **scale up the project** in the near future.



Low effort, typically individual - less than one man-week.



Potentially city-wide application.



Yearly operating costs: € 5,000.

Impact

Child-friendliness



The toolbox serves **to develop personal skills** for children, **but is not seen as beneficial in a spatial context**.

Increase of neighbourhoodness



The toolbox serves **to develop personal skills** for children, but is **not seen in a social context**.

Promotion of cycling and walking



The toolbox serves **to acquire and train** the children's cycling skills and competences **in a playful manner**.

Process

1. Preparation: selection of tools and materials and communication.
2. Promotion of the offer to nursery schools.
3. Registration of interested nursery schools.
4. Lending toolbox to nursery schools.
5. Analysis and evaluation.

Valuation



The measure is highly recommended to other cities. It is **easy to implement, with relatively low investment and personal costs**.

Recommendations

1. **Good promotion** for the box is the most important thing.
2. Implementing an **online loan system** could be very helpful to simplify the loan process.
3. A **general introduction** on how to use the toolbox can be useful for the teachers.

Contact: City of Munich | bianca.kaczor@muenchen.de

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METAMORPHOSIS

INTENSIVE CYCLE TRAINING - MUNICH

The project provides a **compact, practical workshop** for 2nd- and 3rd-graders for early cycling training. Half a class per day passes through the training, with each course lasts about 4 hours, and **focusing primarily on psychomotorical development** in balance and coordination to ensure safe bike handling. The project is **carried out with support** from the police and traffic control. The workshops are designed to address difficulties and deficits in time, so that children still have plenty of time to practice their skills before the bicycle safety test which is performed in the 4th grade.

Outcome

The project was **very well received by children** as well as the school principals, who had noticed **a decrease in biking skills** among children over the past few years. Learning successes were recorded through the understanding of theoretical terms, along with psychomotorical ability in terms of road safety. Children were eager to participate and enjoyed the training.

Impact

Child-friendliness



The workshops are **implemented in schoolyards**, therefore there is no direct impact on neighbourhoods.

Increase of neighbourhoodness



The workshops are implemented in schools, so there is **no big effect on neighbourhoods**.

Promotion of cycling and walking



In a **playful manner**, children learn **the basics in terms of cycling**.

Process

1. Preparation: finding skilled pedagogical staff to implement the measure.
2. Contacting schools, scheduling workshops.
3. Registration of interested schools.
4. Implementing workshop at different schools.
5. Analysis and evaluation.



Average effort, collectively - two man-weeks or more.



Potentially city-wide application.



Investment cost: bike workshop: € 9,000 for the concept, € 2,400 for information material. Yearly operating costs: per workshop (children bikes, helmets and transportation): €1,000, information material € 1,000 and evaluation € 300.

Valuation



The aim was to **introduce cycling to children** who are disadvantaged in terms of cycling experience or practice. **After the workshop, children could perform easy tasks** on the bike and got to know how to **behave safely** in traffic. These are the basic requirements for children to become safe and confident cyclists.

Recommendations

1. **Focus on** schools in **poorer neighbourhoods**, since there are more children who might need extra support for cycling.
2. Search for **qualified pedagogically staff** to implement the measure.
3. **Get in touch early** with schools.

Contact: City of Munich | merle.schroer@muenchen.de

More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

CYCLING QUIZ - MUNICH

This interactive quiz on cycling and road safety was developed to **raise awareness in a playful manner**. The participants have to answer questions displayed on a monitor by choosing from three possible options. In order to answer, they have to **tap with their foot on a floor mat** with three contact panels. If (almost) all the questions are answered correctly, the **participant wins a small give-away prize**. This quiz is used at the **information stand of the municipal cycling initiative**, amongst others, at the "Streetlife Festival" which has approximately 500,000 visitors each year, and is one of the best attended events in Munich.

Outcome

The cycling quiz had **13 operating days** in 2018 and a one-day operation in 2019. The quiz has more of an **entertainment character**, and the game could be played during other events. It was well received and the players (children and adults) enjoyed testing their knowledge.

Impact

Child-friendliness



This quiz has **an entertainment character** and is not spatially focused.

Increase of neighbourhoodness



This quiz has an entertainment character and **not social focus**.

Promotion of cycling and walking



The quiz **helps to provide knowledge and awareness on mobility** issues in an entertaining manner.

Process

1. Public tender/allocation.
2. Preparatory planning: material procurement, check up of technics, creating (new) quiz questions etc.
3. Running quiz within a street festival.
4. Analysis and evaluation.



Low effort, typically individual - less than one manweek.



Wider neighbourhood impact or area level.



Cost per use: € 3,500.

Valuation



The cycling quiz has an **entertainment element**, which can be used to complement an information stand.

Recommendations

1. Choose **not too many questions** so it does not become lengthy – seven should be perfect.
2. The **phrasing** for both questions and answers **should be clear and concise** – involving short time to read.
3. A **power supply** must be provided.

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More information: <http://www.metamorphosis-project.eu/>



EU Metamorphosis Project



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METAMORPHOSIS

SCHOOL HEROS - MUNICH

The school campaign “school heros” tells the story of a sibling couple **Lisa and Leo who like to swing in a tree** in the garden after school. One night Lisa has a nightmare when her beloved tree loses all its leaves. **The students are encouraged** to help Lisa by coming to school in an **environmentally friendly manner**. During two weeks the children can **put a leaf sticker on a poster** with a bare tree. The colour depends on the mode of transport they used to travel to school, with green representing walking and cycling, red using car, and yellow for other modes. In order to provide more motivation, the **classes compete not only with each other, but with other schools**. The class and the school with the most green leaves will be awarded.

Outcome

In 2018, three primary schools with 42 classes and a total of 829 students took part in the “school heros” competition. This competition was **very well received** by the children and the teachers. Even one week after the implementation, **many children were still walking** to school.

Impact

Child-friendliness



Contributes to the **reduction of pick-up and drop-off traffic** at schools in the morning and to calm the area in front of the school, which results in a **safer neighbourhood**.

Increase of neighbourhoodness



Reduces and calms the morning traffic chaos, and contributes to making the neighbourhood a **better place** to live.

Promotion of cycling and walking



The project **encourages children playfully** to go to school in an **environmentally-friendly way**.

Process

1. Public tender/allocation.
2. Preparatory planning: for concept and communication measures, materials procurement.
3. Sending information letters to all primary schools via the municipal schools list.
4. Sending starter pack including poster, sticker and information material for teachers.
5. Running “school hero” competition.
6. Analysis and evaluation.



Average effort, collectively - two man-weeks or more.



Potentially city-wide application.



Operating cost: approx. € 9,000.

Valuation



The “school hero” competition can be **easily transferred** to other municipalities as it can be implemented with **simple tools**. In addition, it provides a stimulus for children and parents to reflect on their **everyday mobility behaviour**.

Recommendations

1. Red leaves are **perceived as stigmatising**. An adaptation is needed so that children who are brought to school by car **do not feel embarrassed**.
2. The **weather has to be taken into account** – on rainy days less children walk or cycle to school.
3. It is also important to **motivate teachers and parents** to take part, as they set an example for children.

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METAMORPHOSIS

TEMPORARY STREET OPENING - MUNICH

In today's car-dominated street environments in cities, **children rarely get the chance to play safely** and independently in public spaces. To address this issue, the city developed **three pilot projects**: 1) During a **"neighbourhood street festival"** a street section is closed for a few hours. Thus, citizens get the possibility to recapture street space to play and spend time on. 2) The **"summer street"** is a street which is closed for several weeks during the summer. 3) Parking bays were transformed into parklets (or small recreation areas), which were created to test whether people's quality of life had increased.

Outcome

These measures were tried out in neighbourhood street festivals, and a lot of **local shops and restaurants were involved** in their implementation. The street opening was implemented during a street festival (2 x half-day each). The parklets were regularly used: they were mostly made of wood, and offered e.g. seating areas, sandbox and flower pots. The summer street was tested over one summer for eight and a half weeks, and the parklets were installed for 10.5 weeks. A lot of **participants and passers-by liked the street openings**. But there were also some critical voices from neighbours. The district committee would like to repeat these street openings, but not sure yet if this will be possible.

Impact

Child-friendliness



Public space can be **rediscovered** during street opening, and **play and creativity** is promoted. A protected space is created where children and youths can **move freely**.

Increase of neighbourhoodness



During the street openings children and adults have the possibility to **come together** in conversation and use the opened area e.g. for playing and socialising.

Promotion of cycling and walking



The goal is to encourage pedestrians and give them more space. An attractive design of public areas **invites people to walk more** and to spend time outdoors.

Process

1. Preparatory planning and application for street closure permit.
2. Detailed planning, contact local shops, restaurants.
3. Communication and promotion.
4. Closing of the street section to cars and temporary change of use (including creation of parklets).
5. Analysis and evaluation.



High effort, several parties and man-months of effort required.



Wider neighbourhood impact or area level.



Investment costs:

Street festival: € 8,000

Summer streets: € 60,000

Parklets: € 100,000

Valuation



The success of this kind of measure highly **depends on the location**. Due to some neighbours' reservations, the implementation process turned out to be **very difficult** and the location of the street opening was not optimal. Therefore, these street openings **did not have a great effect**. However, there is a **great potential** that temporary street openings contribute to child-friendly neighbourhoods and awareness raising.

Recommendations

1. The project must be **supported holistically** (politicians, city administration and citizens involved).
2. Use 'bottom up' instead of 'top down' – as **early involvement of local residents** could ensure a higher acceptance.
3. The **design of street furniture** has a great influence on the use of opened spaces.

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METAMORPHOSIS

WALKING TREES - MUNICH

This involved a greening project called **Wanderbaumallee** ("alley of walking trees"). In the past, such projects were implemented with little positive results. During the implementation of this project, 15 "mobile trees" on skateboards were located in an asphalt-dominated area for several weeks, which helped to **increase the quality of the local environment**. The installation of these walking trees was accompanied by a great entry parade. **Neighbours and local shop owners participated in the project**, for example by taking responsibility for watering the trees.

Outcome

The implementation was very well received. 90 percent of the participants surveyed **were satisfied with the results**. The project was implemented once, on a section of road of around 150 metres. The initiator of the project is "Green City", which also stores the trees during the winter. Unfortunately, during this particular implementation, **vandalism** occurred: all the trees were cut down. In return, **"real" trees were planted** in some of the trial places after implementation. A further challenge was to find care-takers for the trees.

Impact

Child-friendliness



Walking trees turn grey streets into a **green oasis**. This has a positive effect on people's well-being – for children and the neighbourhood more generally.

Increase of neighbourhoodness



Taking **care jointly** of the trees helps to connect the neighbourhood and **brings people together**.

Promotion of cycling and walking



Improving the appearance of the street makes **walking and cycling more attractive**.

Process

1. Procure potted trees (this was not necessary in Munich due to the cooperation with "Green City").
2. Find suitable locations, best in cooperation with district committees.
3. Obtain permission for the implementation.
4. Organise transport of the trees to the locations.
5. Design and production of promotion material.
6. Implementation. Optional: organise a public parade.
7. Find 'godparents' for watering the trees.



Average effort, collectively - two man-weeks or more.



Wider neighbourhood impact or area level.



Costs per parade: € 5,000.

Valuation



The project upgrades neighbourhoods, brings people together and has **high visibility**, but **requires a lot of organisation** (trees have to be procured and transported, and new locations and sponsors have to be found).

Recommendations

1. Make sure to have a place for the trees when they are **not in use** on the street.
2. **'Godparenthood' and neighbourhood support** is a very important success factor, so the project should be announced **at an early stage**.
3. **Political involvement** can help to make the street permanently greener.

Contact: <https://www.greencity.de/projekt/wanderbaumallee/>

More information: <http://www.metamorphosis-project.eu/>



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METAMORPHOSIS

MOBILITY SHARE POINT FOR FAMILIES - MUNICH

In the past, having a baby often was often linked to the purchase of a car. **To encourage and support families** in urban areas to be mobile without a private car, **mobility sharing points** now provided a new service: **neighbours can borrow an electric cargo bike or a pedelec** with a trailer attached. This was complemented by loan pedal scooters and helmets for children.

Outcome

The **service was very well received**, and the share point caretakers (usually youth centres or other kinds of social institutions) reported a good utilisation rate. There are plans to broaden the concept in the City, however it is **difficult to find caretakers** as well as space for the vehicles and equipment. For one sharepoint, a shed had to be built and electricity cables had to be laid beforehand, and this required a prior inspection in addition to assignment and execution by a civil engineering company. The construction is in its final stages, but this share point is still not ready and the legal issues (liability, data protection, etc.) are currently being reviewed.

Impact

Child-friendliness



The share points reduce car usage and offers a **service for families** to be actively mobile in their everyday life.

Increase of neighbourhoodness



Neighbours connect with share point caretakers (youth centres or other kinds of social institutions).

Promotion of cycling and walking



The project **brings people on bikes** and lets families experience alternatives to car use.

Process

1. Find caretakers and space for the vehicles and equipment.
2. Make sure vehicles and equipment are shielded from weather and theft-protected.
3. Develop the legal framework.
4. Choose appropriate vehicles and equipment according to your goals.
5. Promote and communicate the service.



Average effort, collectively - two man-weeks or more.



Potentially city-wide application.



Approx. € 2,500 per electric vehicle
Approx. € 100 per pedal scooter
Approx. € 25 per childrens helmet

Valuation



The initial work is worth the effort, since the **project is meant to last several years**. Additionally, it supports families being mobile and it promotes alternatives to the car.

Recommendations

1. Ensure **someone is available to take care of the bikes and equipments**. some further space is needed to store equipment such as helmets or an air pump.
2. Get the **legal framework** right for the vehicles borrowing process (e.g. for e-cargo-bike and pedelec-with-trailer).
3. Make sure vehicles are **shielded from weather and theft-protected**.

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More information: <http://www.metamorphosis-project.eu/>



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