SustAInability – Perspectives & Prototypes

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Challenge: Fürstenfeldbruck - Schöngeisinger Street

Zammly

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Introduction *(Sinem Bayazıt)*

In today's world, as transportation options, the number of cars, bikes, and the general population continue to grow, our cities are becoming increasingly crowded. Because of these reasons, some concerns about climate change, air pollution, and street safety began to grow. As a result, many European cities are looking for new ways to make their streets safer and more livable. One popular approach, known as tactical urbanism, is to use simple and small-scale actions to show that significant and long-term changes in cities are possible and address current urban assumptions[1].

The city of Fürstenfeldbruck in Bavaria, Germany, is one of the places experimenting with these ideas. In August 2022, the city introduced a temporary 20 km/h speed limit on 350 meters of Schöngeisinger Straße—a key road that hosts both residential and commercial areas[2]. This measure is part of a larger plan to reduce traffic speeds, make walking more pleasant, and improve the overall quality of life in the neighborhood. The project is still in a test phase.

Since then, Fürstenfeldbruck has implemented some extra measures for improving street usability and environmental sustainability. These include the installation of parklets (small public seating areas), restrictions on heavy-duty vehicles, digital speed displays to promote compliance, and a new, barrier-free bus stop to make the street more accessible[3]. The goal of these measures altogether is not just to reduce driving speeds, but to create a safer, more attractive, and more functional shared space for all users of the street.

Problem statement *(Sinem Bayazıt)*

Realizing the full potential of these measures depends on understanding some interrelated factors. We tried to understand the following questions: How have traffic volumes changed for pedestrians, cyclists, and motor vehicles? Have emissions such as noise and air pollution been reduced? Do residents and local businesses perceive

[1] Barata, A. F., & Fontes, A. S. (2017). Tactical urbanism and sustainability: Tactical experiences in the promotion of active transportation. *Int. J. Urban Civ. Eng*, *11*(6), 734-739. https://shorturl.at/Wh4cd
[2] Original file of the Challenge. Accessed via Moodle in May 2025. https://docs.google.com/document/d/1Neaou91csq_UIsFJQGdtTqJ9e7Rb4VbF/edit
[3] Original file of the Challenge. Accessed via Moodle in May 2025. https://docs.google.com/document/d/1Neaou91csq_UIsFJQGdtTqJ9e7Rb4VbF/edit

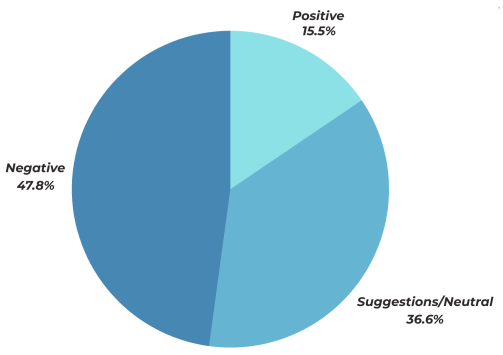
the area as safer or more pleasant? Has the loss of parking due to parklets caused inconvenience, and how can this be addressed? Drawing from given data sources, observational methods, and community feedback, we aimed to assess the current state of the Schöngeisinger Straße.

While searching for answers to these questions in order to understand the effects of the measures and to guide further research, we observed that, despite some improvements, there are still issues with the use of the parklets and the traffic-calming measures in general. The main problems that we identified were:

1. Community engagement with the parklets was lower than expected.
2. People were unhappy about losing parking spaces due to the installation of the parklets.
3. The parklets were in poor condition, which may discourage people from spending time there.

Data Analysis (Anahi Cordero Garcia)

The data that we used to better understand the problem consisted of a collection of feedback from the citizens about the temporary parklets installed on Schöngeisinger Straße and the newly implemented 20 km/h speed zone, and some statistics about how many cars and people were on that street at certain times a day.
Feedback from citizens
Between June and December 2024, 40 emails were collected. The content in those emails was categorized into 116 entries about their perspective on the parklets and the new 20 km/h zone[4]. We classified the entries into positive, negative, and suggestions.



Graph 1: Classification of feedback

[4]Miramontes, M. (2024), Feedback zu den Parklets und zur Tempo-20-Zone [Unpublished manuscript.

On the positive side, people said that they felt that the parklets improved the overall atmosphere and scenery of the street. Specifically, they really appreciated the added greenery and seating spots, which, according to them, made the areas more inviting and pedestrian-friendly. Also, some residents highlighted that the parklets prevented cars from blocking access to courtyards, which in turn improved the use of private parking spaces. Older individuals and people with limited mobility welcomed the opportunity to sit and rest while walking through the area. Others saw the parklets as effective tools for calming traffic, making the environment safer for children and seniors. A few even envisioned a long-term transformation of the street into a pedestrian zone. One parklet was praised for becoming a social and creative space that hosted events and local art, which was seen as a benefit for the community. [5]

On the negative side, the most frequent complaint was the loss of parking spaces, with around 40% of respondents expressing concern. This issue was especially problematic for residents without private parking and for those who feared it would harm local businesses. Some respondents were also worried that the reduced availability of nearby parking made access harder for people with disabilities. In terms of location, about 30% found the parklets poorly placed, too close to a noisy, heavily trafficked street. Others criticized the design, saying the benches were uncomfortable and that they were facing building walls instead of the street, and that the installations were unattractive, sometimes even described as “construction site-like.” Some disliked the use of exotic plants, pointing out their limited ecological value. A number of emails also mentioned that the parklets appeared underused. As for the Tempo 20 zone, opinions were mixed: some felt that drivers did not respect the limit, while one person argued the speed was unnecessarily low.[6]

In their suggestions, people generally recommended relocating the parklets to other more suitable spots, placing them in some quieter streets, plazas, or areas near cafés, just so people could interact with them. Others proposed some design improvements, like adding backrests, armrests, better orientation, sun protection, and planting native plants that could survive the winter. Lastly, many encouraged stronger community engagement through surveys, public workshops, or interactive platforms to collect and discuss ideas collaboratively.[7]

[5]Miramontes, M. (2024), Feedback zu den Parklets und zur Tempo-20-Zone [Unpublished manuscript].
[6]Miramontes, M. (2024). Feedback analysis (anonymous) [Unpublished dataset].
[7]Miramontes, M. (2024), Feedback zu den Parklets und zur Tempo-20-Zone [Unpublished manuscript].

Observation data (Anahi Cordero Garcia)

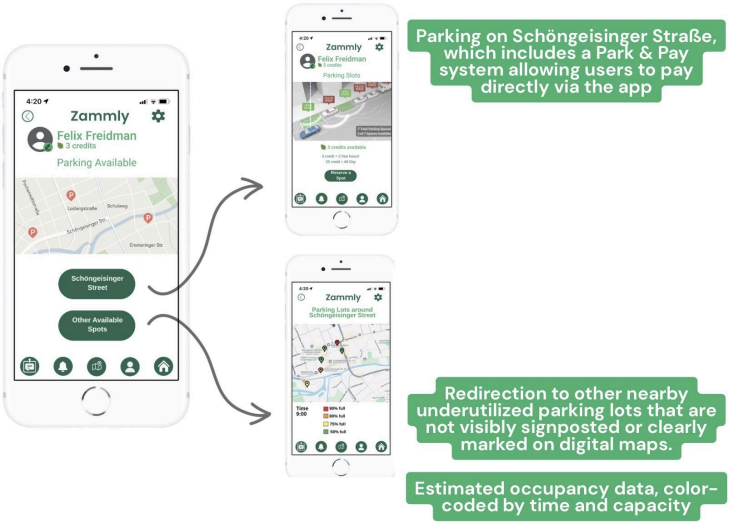
Also, data was collected during the pilot period. Generally, it showed a steady flow of people walking along Schöngeisinger Straße, with a noticeable number of individuals stopping to use the parklets for resting, socializing, or simply enjoying the environment. Importantly, no heavy truck traffic was allowed during this time, which contributed to a calmer and safer atmosphere on the street.[8]

Zammly – Our Solution (*Alice Oluwole*)

To address the problems we discovered, we built Zammly, our intuitive app, which facilitates participation and practical support. At the heart of Zammly is the principle of community engagement, and this value is integrated directly into its design.

Smart Parking Access: One of the most prominent concerns was the *loss of parking spaces* due to the installation of parklets and accessibility ramps. Zammly addresses this with a feature called "*Available Parking*" on the home screen. These features help drivers quickly locate less-known parking options and reduce time spent circling the area. It also alleviates pressure on the main street, supporting the existing *Tempo-20 traffic calming measures.* Zammly makes this more intuitive by using estimated occupancy data, color-coded by time and capacity (from 6:00 AM to 8:00 PM).

When users click this option, they are directed to a menu with two clear paths:



[8]Miramontes, M. (2024). Overview of datasets in the 'Traffic Data' folder [Unpublished internal document].

Figure 1: Snapshot of Zammly's Parking Feature

Volunteer Tasks & Credit System: Another core issue we identified was the *poor maintenance of parklets*. Zammly addresses this through a *Credit and Reward system* built into its volunteering module.

Figure 2: Snapshot of Zammly's Volunteering and Credit Feature

Tasks are intentionally broken into small, manageable parts: sweeping, wiping benches and tables, and general tidying. This design ensures that volunteering feels accessible and not overwhelming. After completing a task, users upload a photo of their work for verification. Once confirmed, they receive credits, which we call **"**Leaves**"** which are used to redeem rewards as seen in the above graphic.

This system not only incentivizes care for shared spaces but also *builds partnerships with local businesses*.

Feedback & Community Voice: Beyond volunteering and parking, Zammly also includes a section for *citizen feedback and collaboration*. This area provides tools to:

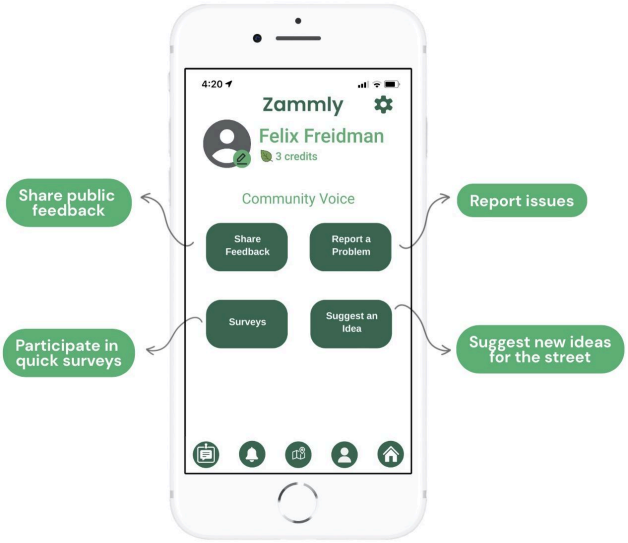


Figure 3: Snapshot of Zammly's Community Engagement Feature

Discussion (*Helena Maudoux*)

Through the analysis of this challenge, our views on the solution to this problem have evolved. At the beginning, we analyzed the data given to us by the city of Fürstenfeldbruck and identified multiple paths we could take to resolve the challenge. However, after visiting Fürstenfeldbruck and meeting with our challenge giver, Miramontes Montserrat, who gave us a tour of Schöngeisinger Street, we got a better understanding of the needs and wants of the citizens. The observations we made on the street: the condition of the parklets, the lack of clarity around parking, and the lack of concrete communication tools between the municipality and citizens, helped shape our solution app, Zammly.

While analyzing the data given to us, especially the citizen feedback, we identified the problem to be related to a lack of citizen involvement and a sense of community. This insight pushed us to develop Zammly as an interactive tool designed to make the communities' lives easier. Each of the app's features was derived based on the needs we analyzed from the feedback data. For example, we implemented the Leaf system to gamify the process of keeping the parklets clean. This benefits urban spaces while also fostering a sense of community, where people can clean together. Additionally, redeeming leaves for rewards can provide advantages to small businesses.

Throughout the project, we remained committed to the idea that the Zammly app could eventually be implemented in the city by ensuring that each action and goal we set was achievable. For example, with the help of our challenge givers, we ensured that incorporating business vouchers into our app was feasible before integrating them into the prototype. Additionally, we discovered that the city planned to introduce paid parking on Schöngeisinger Street, so we incorporated this feature into our app to make it easier for users to locate available parking spots and find where they could park. In the end, Zammly was shaped by real needs and practical insights gathered throughout our analysis and interactions.

Outlook (*Helena Maudoux*)

Implementing the app in the city of Fürstenfeldbruck would be the first step in looking to the future. Launching a pilot version to test the prototype would be helpful to better understand the citizens' interactions with the app. This would involve numbering the parking spaces and ensuring that the only means to pay for street parking was through the Zammly app. Sending out surveys would allow us to monitor the app's progress and usage, helping us identify what is working and where users might be experiencing difficulties. All of this would offer a concrete foundation to adjust and improve the Zammly app.

For a more long-term approach, we imagine Zammly would evolve into a useful tool in the everyday life of a citizen or commuter of Fürstenfeldbruck. A space where people can check bus schedules, receive updates and local news, see posts about community events, offer advice, or simply feel more connected to those around them.

We also believe the app would feel more community-oriented if local businesses were involved, where they could offer vouchers that citizens could earn and redeem at specific stores. This would support the local economy while also motivating people to participate more actively in keeping the parklets clean.

Through ongoing improvements and teamwork, Zammly has the potential to grow into a key tool for strengthening community engagement and sustainability in Fürstenfeldbruck.