

**Towards a big
city with small
city qualities**

Gehl +



Ville de Lausanne

Foreword by
Mme Germond
Town Councilor
of Lausanne

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Introduction

This chapter gives a short introduction to Lausanne as a city - its current challenges, potentials and planned projects - as well as a description of the present study of public space and public life in the city center.

Lausanne at first glance

Lausanne is a historic city located centrally in Europe and well connected to France and Italy. To outsiders the city is well known for its location on the shores of Lac Léman. In addition to the natural setting, the city is renowned for its excellent gastronomy, but is also well known for its museums, dance and music scene, as well as being a student city with several important educational institutions. Lausanne also has a focus on international sport, hosting some 55 international sport associations such as the International Olympic Committee and has since 1994 been named the “Olympic Capital”.



As part of being the “Olympic capital” Lausanne hosts the Olympics Headquarters and The Olympics Museum



Plateforme 10 is a new cultural hub in the city centre of Lausanne.



The oldest restaurant in Lausanne 'Pinte Besson'.



Signs advertising the many theater and music performances in the city.

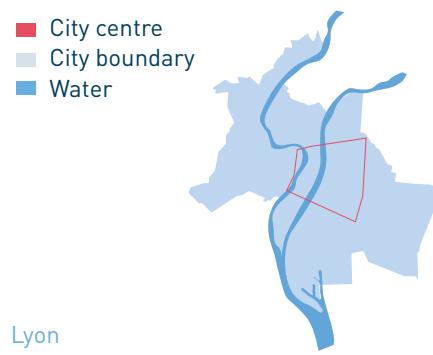


Overview

Lausanne is the capital and biggest city of the canton of Vaud, and the 4th largest city in Switzerland. It is located on the shores of Lac Léman - with the Jura Mountains to its north-west and the Alps to its east. With its nearly 145,000 inhabitants and its proximity to France, it is a city of great importance both nationally in Switzerland and for those people commuting from France.

Scale comparison

- City centre
- City boundary
- Water



Lyon

513,275 inhabitants in the city of Lyon
2.27 mio. inhabitants in the metropolitan area

47.87 km² city centre
11,000 inhabitants /km²



Bern

4,600 inhabitants in the old town of Bern
140,600 inhabitants in the city
1.03 mio. inhabitants in the metropolitan area

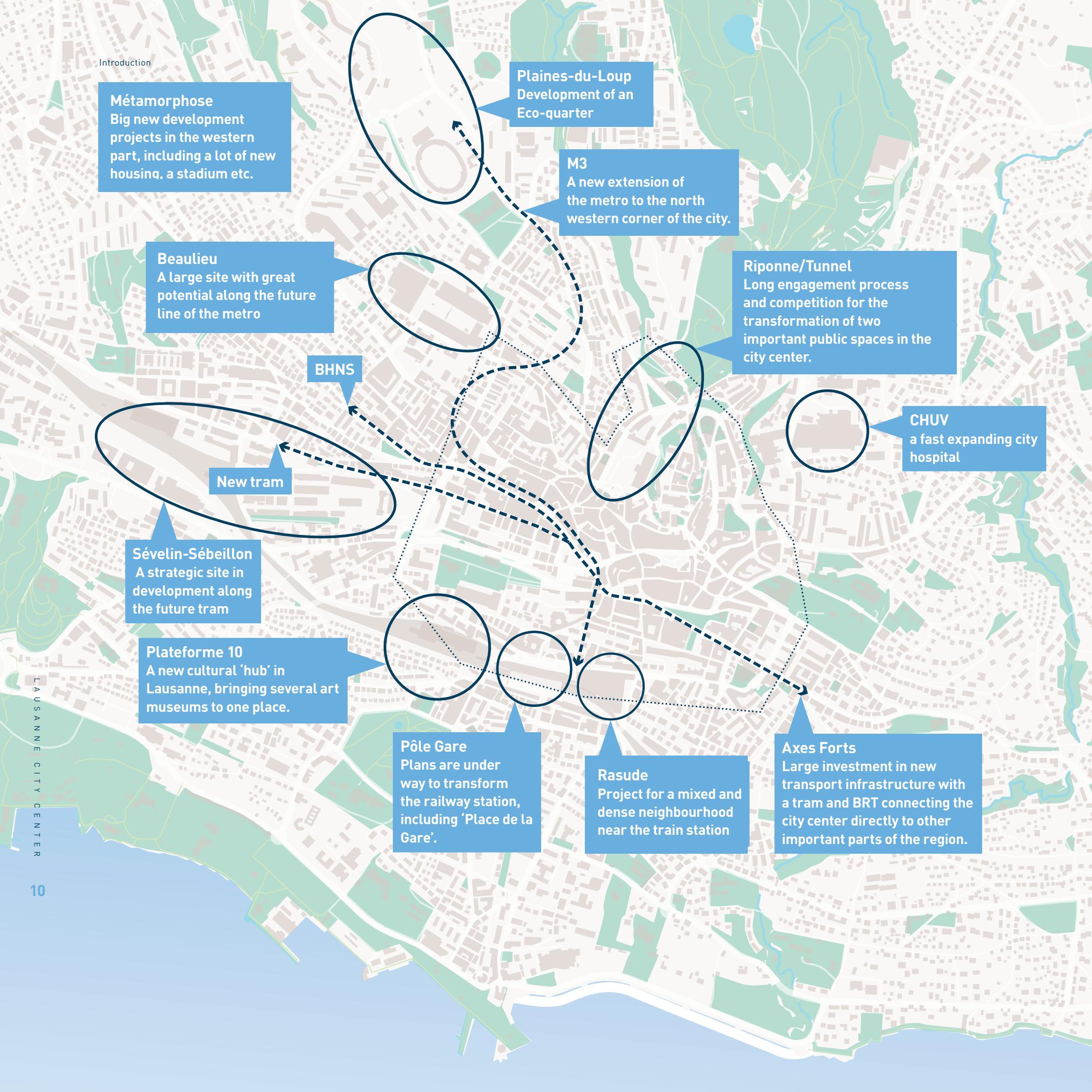
0.85 km² old town (study area of PSPL)
2,600 inhabitants /km²



Lausanne

12,705 inhabitants in the city center of Lausanne
144,790 inhabitants in the city
1.2 mio inhabitants in the metropolitan area

1.24 km² city centre (Study Area)
10,260 inhabitants /km²



Future Projects

Lausanne is a city in transformation, reevaluating its identity. With many plans and projects underway involving densification, it is no longer just a big small city, but is slowly becoming a small big city with many aspirations and ambitions for the future.

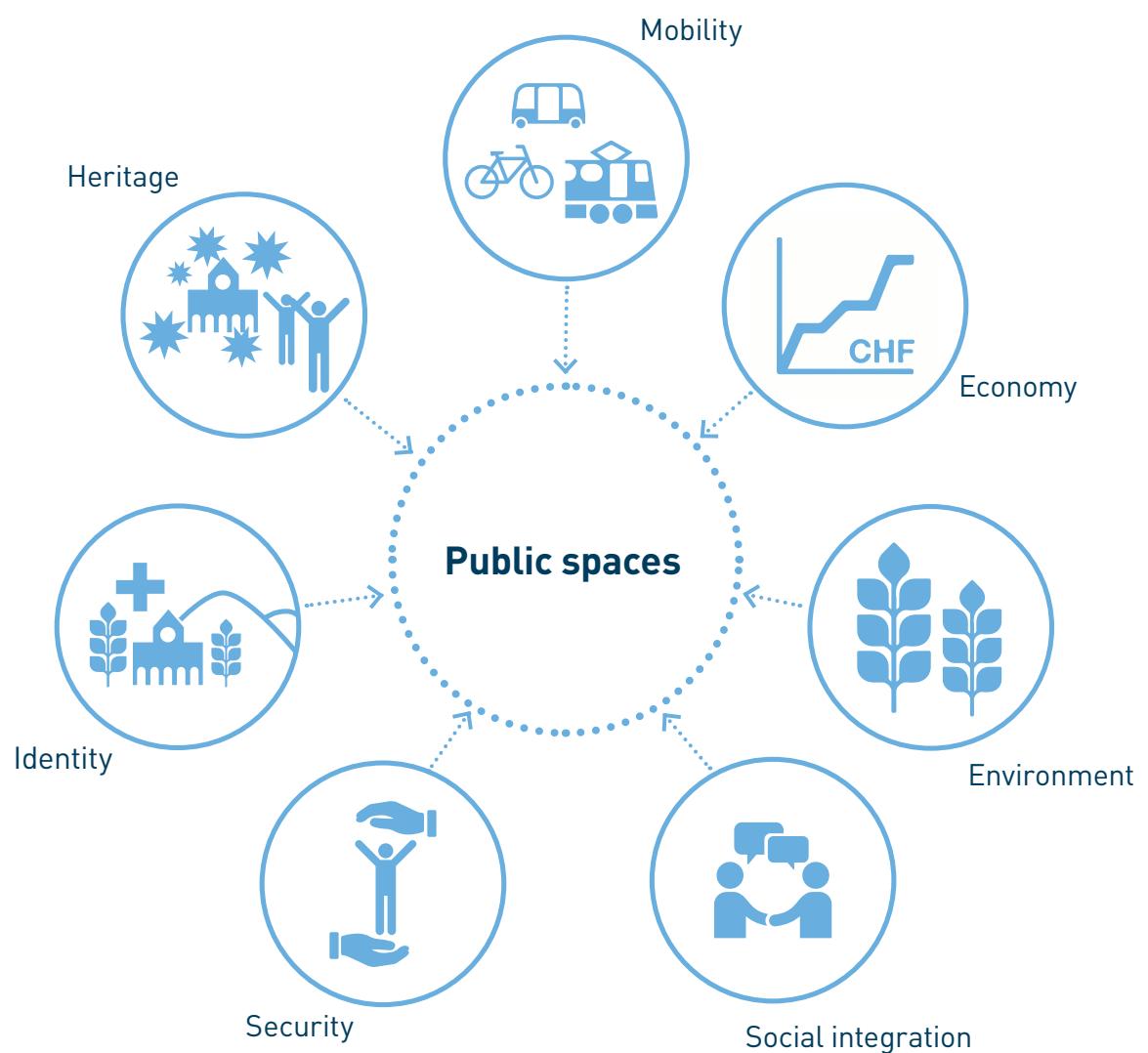
The aspirations for the future include a much stronger regional perspective where Lausanne is likely to play a different role in the future.

Although many of the big development projects are happening outside the city center, they will nevertheless have an impact on the city center.

With many international people coming to Lausanne it is becoming increasingly cosmopolitan. Today approximately 40% of the population is non-Suisse, and among young people it is more than 50%.

New housing and an expected growth in number of inhabitants over the next decades will create new demands for what the city has to offer - and for the role that the city center has in relation to the development of its surrounding areas.

In this time of transformation, the role of public spaces will only become greater as they will have to serve many different functions at the same time, such as securing good mobility and acting as arenas for public life.



PSPL Studies

Gehl has conducted Public Space Public Life studies (PSPL) in cities around the world, producing empirical evidence and arguments for improving public space. Gehl's work is based on the research conducted by professor Jan Gehl. With the human dimension as a starting point, he has worked to improve cities for over 50 years.

References



Odense — documenting change

The City of Odense has since 1988 collected data on public space and public life as a tool to inform their strategic planning for the city center. The work has among other things led to a special strategy focusing on children and play. The latest survey was conducted in 2018 at a time when Odense is in a stage of rapid transformation with ambitions to become a major city in Denmark, and with the development of the surrounding neighborhoods it is important to assess the role of the city center.



New York — streets for the 21st century

The NYC Department of Transportation has worked strategically to improve conditions on the city's streets towards the vision of a greener, greater New York with Gehl as a collaborator and PSPL as a tool. The vision manifests itself in a series of swift and affordable pilot projects along Broadway, reclaiming nearly 45,000 m² of public space alongside initiatives throughout five districts. The new public spaces have been a huge success, catching the attention of cities across the world.



Bern — an Altstadt for all

In 2016, Gehl conducted a PSPL of the Altstadt in Bern looking at how to capitalize on the unique qualities while also planning for the future, inviting more people to spend time in the old city center. The City of Bern has since initiated a number of pilot projects around the city to invite for more public life and test new solutions.

Studying Lausanne

Process

The present study on public space and public life (PSPL) has been carried out in close collaboration between Gehl and Routes et Mobilité Department within the Ville de Lausanne.

The study was kicked off with an analysis of the public spaces, which involved a big workshop with 55 representatives from different departments ranging from urban planning, culture, economy, maintenance, police and others - with the aim of getting as many perspectives as possible on the role and issues of public space.

In May, a public life survey was carried out in collaboration between EPFL and the City of Lausanne. Both students, researchers and practitioners took part in the data collection, and the results have been presented and discussed with them in March 2020.

The last workshop was held in February 2020. At this workshop key moves and recommendations were presented and discussed, and concrete actions and interventions were developed for the different parts of the city centre. This was again a joined effort across the many different service areas, thus bringing a truly integrated perspective to the ideas.

Methodology

Public Space & Public Life survey

The study is based on both available data from the Ville de Lausanne, as well as data collected through a 'Public Space, Public Life' survey.

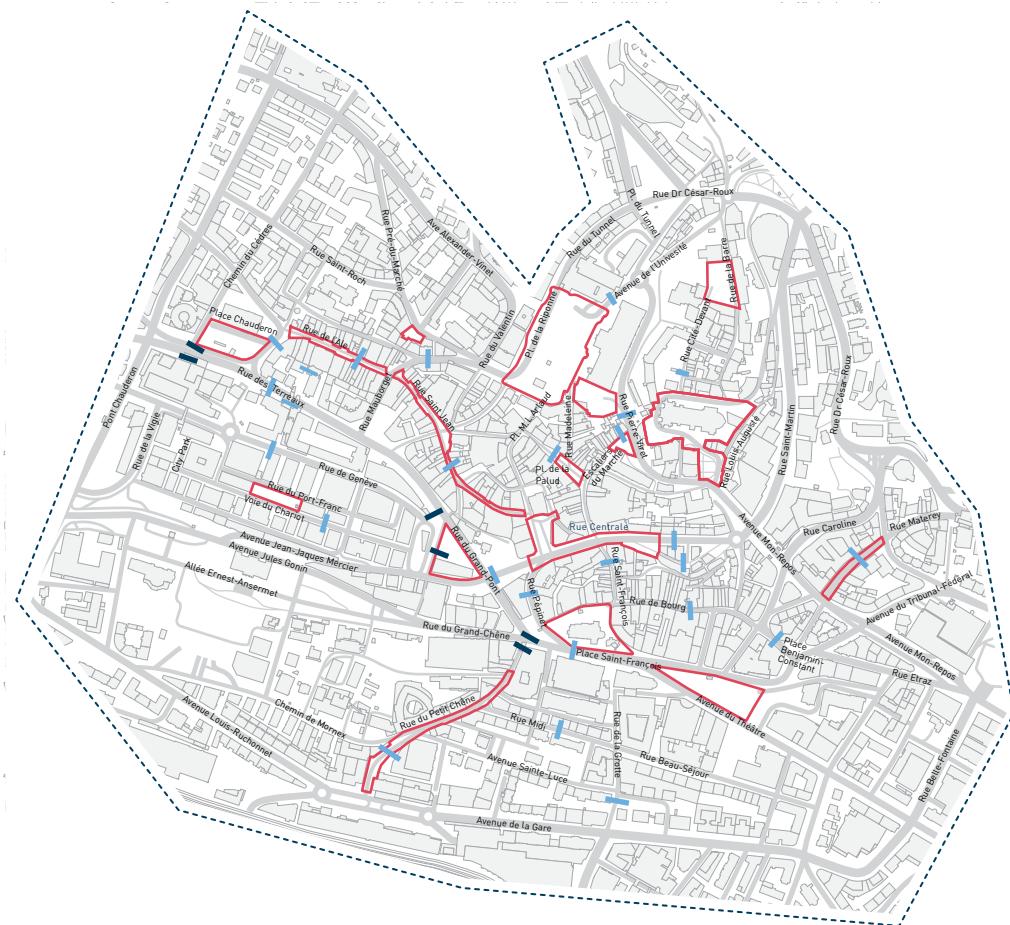
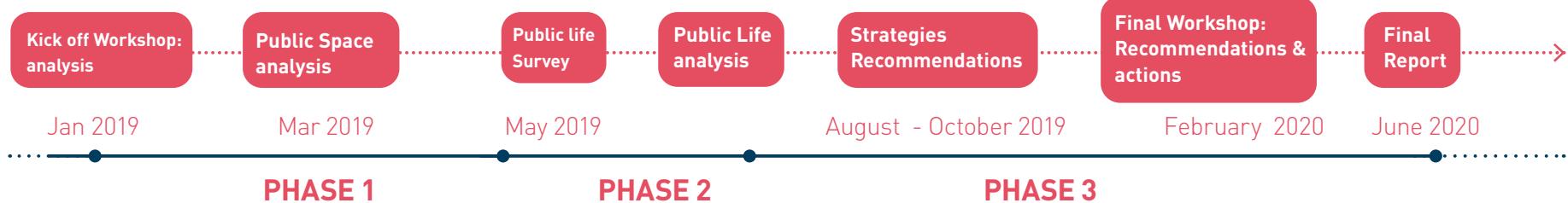
The public space survey involves quality assessments of public spaces, including registrations of furniture (amount and quality), facade quality, paving quality and level of greenery.

The public life survey involves movement counts (pedestrians, bikes, cars) to understand flow and mobility patterns. In addition to the movement counts the public life survey also includes registrations of people staying in the city center; age/gender, the type of activity and whether they are sitting, standing etc. This data provides valuable information on the character of the public life and who is present - or not present - in the city

center. This information has helped focus the strategic recommendations and concepts in the report and serves as a baseline for future improvements.



Process / 2019 - 2020



- Staying activity registrations
- Movement counts every 4 hours
- Hourly movement counts

Notes:
The Public Life Survey was conducted from 8am to 9pm on the 14th and 18th of May, 2019.
On the 14th of May, the survey ended at 8 pm due to cold weather conditions.
The weather conditions were as follows:
Tuesday: 15 degrees, sunny, with some wind
Saturday: 16 degrees, cloudy/sunny

Potentials

This summarizes the most important potentials and challenges identified in Lausanne as part of the analysis and input during the workshops.

A topography that gives a strong character to the city center and provides exceptional views

Fantastic location in the landscape - surrounded by beautiful nature

Rich commercial life with a very strong market culture

Rich heritage of historic trees & parks

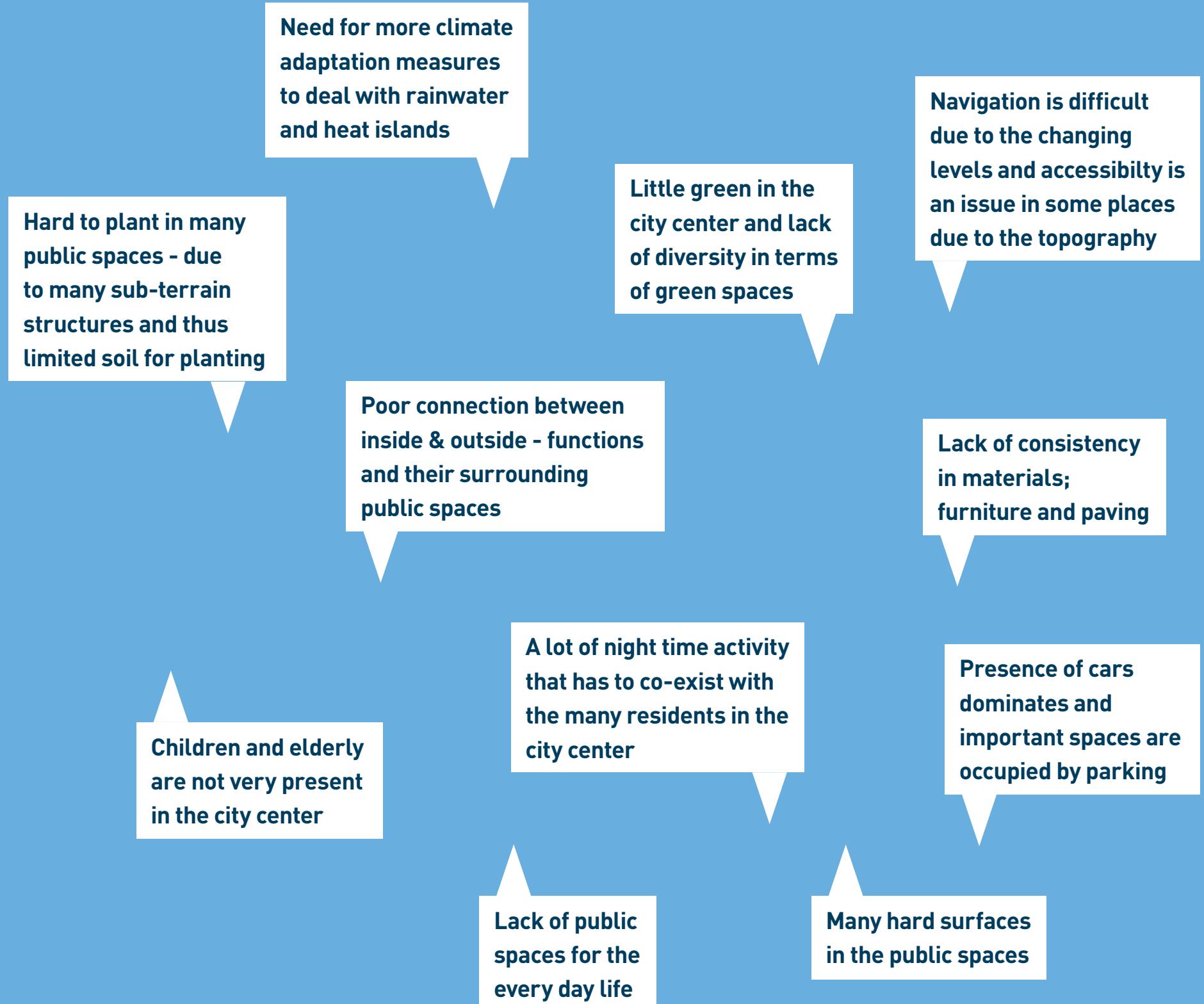
An extended network of pedestrianized streets

Many historic buildings

Very rich cultural life

A big variation in the public spaces in terms of scale and ambiance

Challenges



Lausanne à découvert

Analysis

me
in
the
world





Character

All cities are distinct and they each have their own character which may be more or less pronounced. This chapter highlights the special Lausanne character and describes the important amenities that are part of this identity and character.

Lausanne – a city rich with history

Lining the border of Lake Leman, and with mountains close by, Lausanne is a city well known for its beautiful natural surroundings. The first settlements were a military camp built by the Romans close to the lake. Later, for protection, the city moved to its current position up the hill side. In 1803 it became the capital of the Canton de Vaud.

The historical development is still present in the city center today, and the city is characterised by many beautiful historical buildings. Even within the small area that constitutes the city center, different parts have their own distinct character - from the old Cité around the cathedral to Flon, to Saint-Francois, to the area around the railway station. This gives the impression of the city as a mosaic. Many of the historic buildings and streets are, however, rarely celebrated visually, and the history not communicated in the public spaces.



1873



1928



2009



A remarkable topography

Lausanne is a city built on three hills that help separate its different neighbourhoods. The unique topography gives Lausanne a strong identity and is in many ways a defining element of its character. It also provides an abundance of interesting view points throughout the city, but they are not always given the attention they deserve.

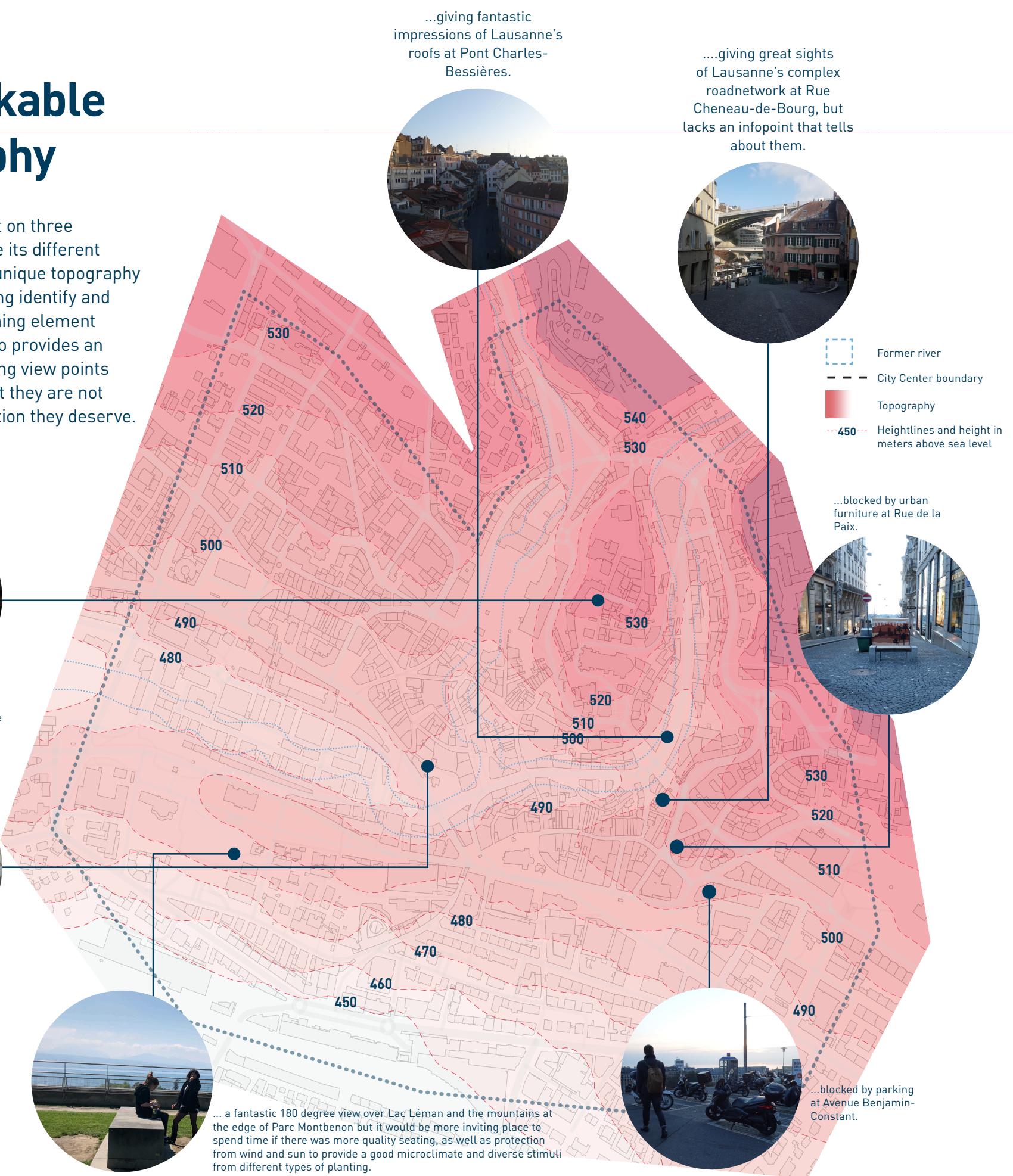
The view is...



...lacking more diverse public seating and invitations to enjoy the view at Placette André-Bonnard.



...lacking wayfinding info to help orientate through the view at Grand-Pont.

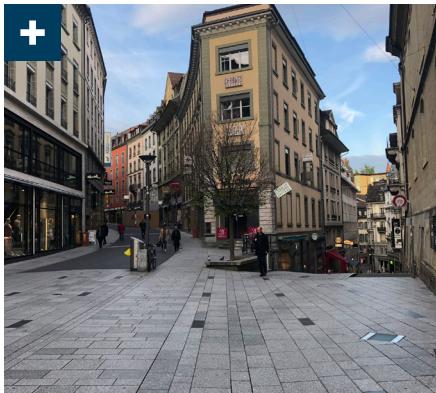


Bridges, steps, escalators and lifts are all part of Lausanne's character, but are not treated as unique places



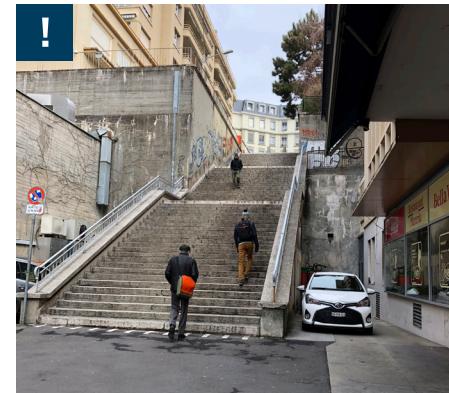
The viewpoints within the city

There are unique spots in the city center that give fantastic views to the surrounding nature and the city. Esplanade de la Cathédrale is one of those places, but as a public space it lacks visual quality in terms of well maintained paving and nice materials, good quality seating and info about the viewpoints. The viewpoint area is furthermore not very well integrated with the public space surrounding the cathedral.



Where different levels intersect

Where changing levels and winding streets meet, interesting viewpoints can appear, but in some places important views get blocked, which would be beneficial for orientation within the city.



Stairs, escalators and lifts

These elements are an important characteristic of the city and allow for interesting and diverse views in many directions. However, they are also very demanding and restrictive when it comes to accessibility for elderly, children and people with reduced mobility. A number of stairs throughout the city center also have a 'backside' character with trash bins etc.



The roof of buildings

Due to the topography the roof of a building sometimes becomes a public open space. These flat surfaces are highly valuable as they are rare in a city that is mainly vertical. They can be both, inviting places for people to stay and provide great views over the city.



Unnecessary levels

In addition to the stairs there are a number of smaller steps and level changes which creates confusion and has a negative impact on the use of public space, such as Placette des Terreaux.



Experiencing and navigating many levels

Walking through Lausanne can be an exciting thing to do, as many different layers create surprising views and entertaining strolling experiences. It is, however, sometimes difficult to find your way around and know which way is the shortest or most comfortable to take. One has to know the city very well to find all the short cuts and most efficient routes.

Surrounded by fantastic landscape

One of Lausanne's biggest assets is the fantastic landscape surrounding the city (mountains, lake and vineyards). Within the city, the landscape is less present and most large green areas are outside the city center, often with no clear connection between the city center and those green amenities. Parks within the city centre are few, and some are poorly embedded into the pedestrian network, and there is generally a lack of diversity of types of green areas that can provide a variety of experiences and atmospheres.

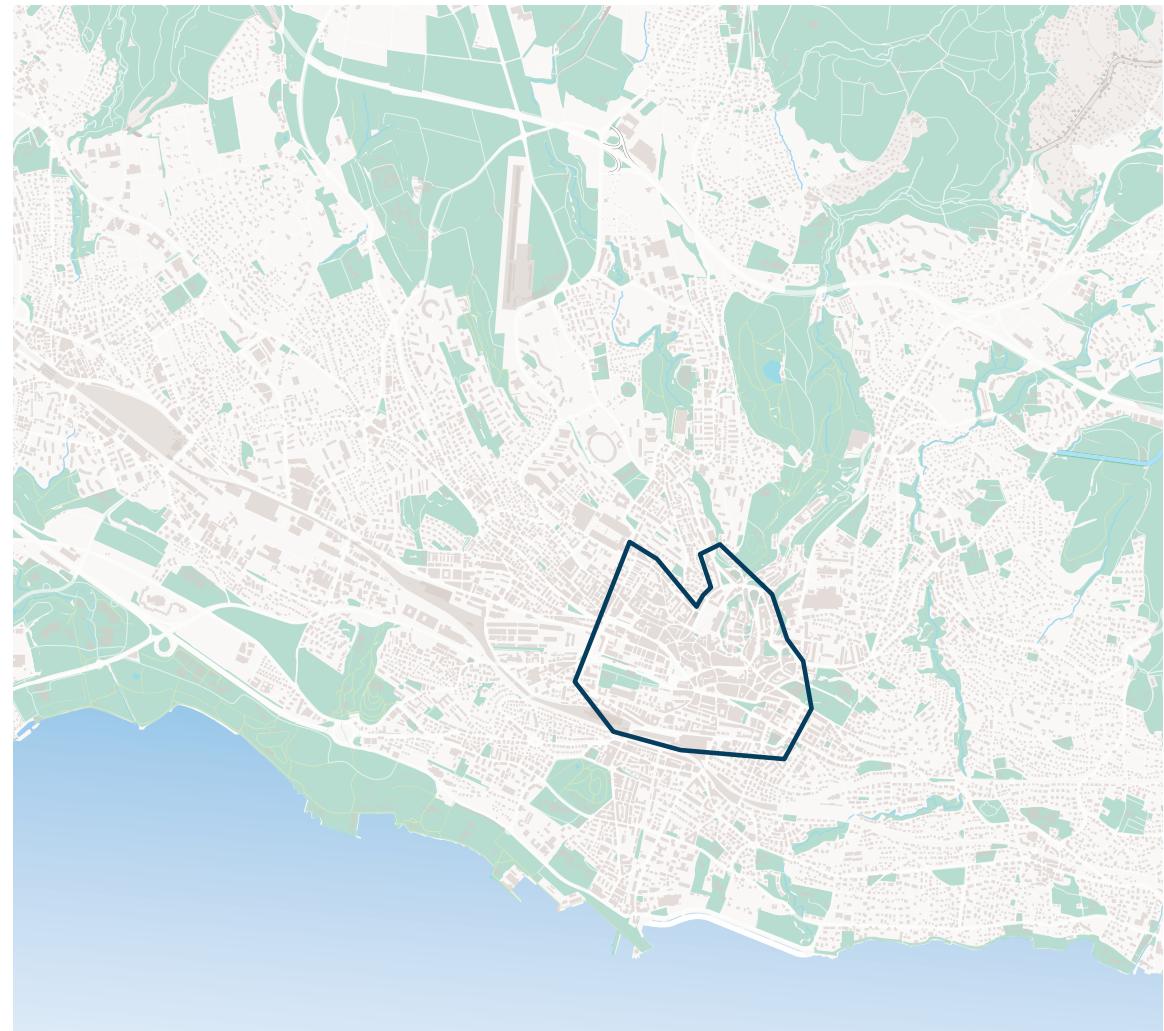


A fine green connection between the city center and Parc Montbenon.



Lac Léman

The lake is a major - and popular - leisure destination in the city and is well connected to the city center by metro. Yet, once in the city center, the lake is not very present.



The Alps

On the southern side of Lac Léman, the Alps create a scenic background to the city. They are a recreational resource in terms of skiing and hiking. It is not rare to see people walking around carrying skis in downtown Lausanne, arriving back from a skiing day in the Alps.



Parc de Sauvabelin

Lausanne is blessed being surrounded by such beautiful nature. Parc de Sauvabelin is in the north of the inner city. With a big green area, a lake and a tower to view the amazing landscape around, Lausanne's inhabitants mainly use it as a weekend destination.



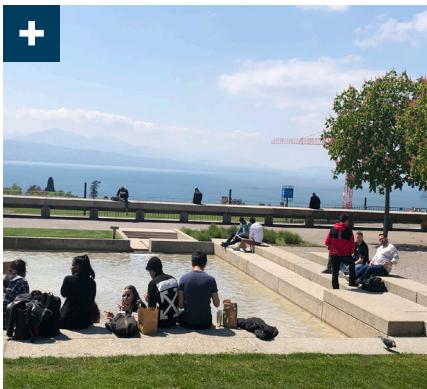
'Left over' greenery

At some edges of buildings and street corners, unused greenery can be found. It's both, lower shrubs and bushes but also trees that decorate the built urban structure. Often these are fenced or it is not clear whether they are accessible to the public. An example is Palais de Rumine, Place de la Riponne.



Inaccessible treasures

There are some green pockets that are visible but not accessible. It is not really clear whether they are private or public. Considering their size and central location within the city, they are unused potential for more green space for recreation and climate adaption.



Green space for social gathering

Parc Montbenon offers a much needed green space in the city where social gatherings can take place - whether in a small group or large groups.



Charming pocket parks

The city has some hidden treasures when it comes to small pocket parks. They can be found at various spots within the city center and equipped with lush greenery and possibilities to sit and rest. Some of them could be even greener, providing shade in summer and protection from rain.



Spots of green

Encounters of green corners, vertical greenery on facades or green roofs are rare in Lausanne. There is a huge potential to intensify greenery in the public realm. These green elements can make the city more pleasant to look at and can help to reduce heat during summer.

Cut off by big streets

Parc Derrière-Bourg is a very important green space but it is difficult to access as a consequence of rigid east-west and highly trafficed corridors going through the city center, thus making it difficult for some user groups to enjoy the park.



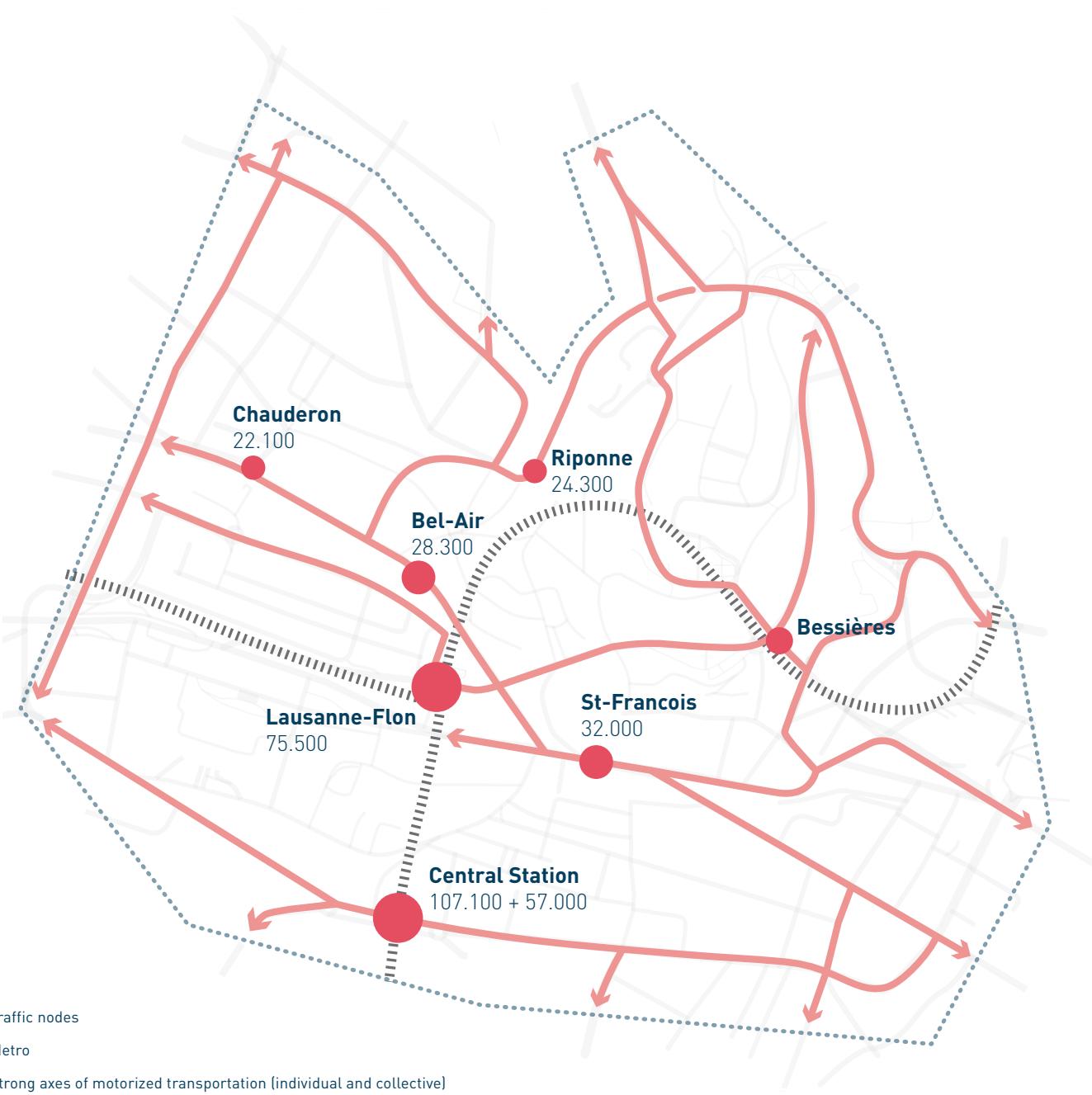


Moving in Lausanne

Good mobility conditions are key to a well-functioning city. This chapter paints a picture of the current mobility patterns and systems in Lausanne, highlighting how the city center performs for different mobility modes.

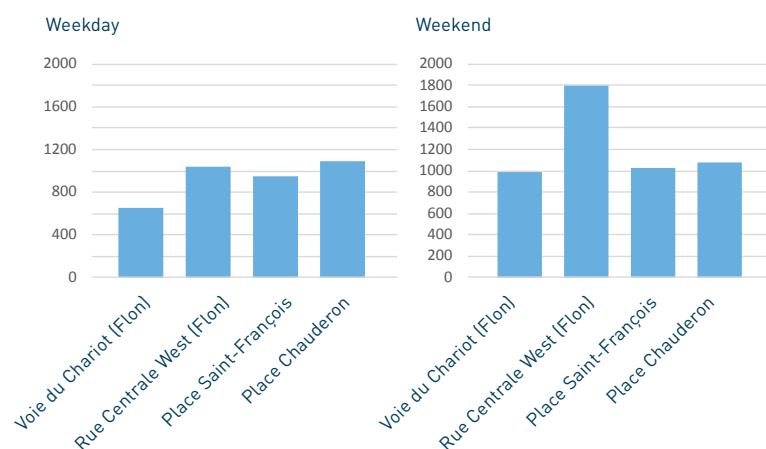
A city of important transport hubs

The city of Lausanne has an extensive network of public transport with regular buses, trolley buses and metro (that was opened only 10 years ago) connecting the city center to the rest of the city. With more than 40,000 people commuting into the city center every day, the public transport network plays an important role for Lausanne. As a consequence, public transport is a dominating feature in public spaces. The railway station is the busiest station, but due to the large distance to shopping areas, other stations play an important role as transport hubs in the city. The public transport network within the city center is focused around metro stops, or buses mainly running east-west. There are few opportunities for using public transport when moving north-south (except for the metro). The concentration of public transport along certain routes tend to create a barrier effect.

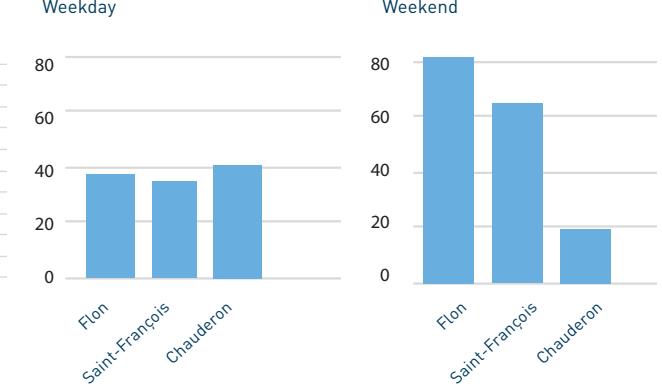


28
Public transport network -
which is now being extended

Hourly average of pedestrians / Movement



Hourly average of amount of people / Stationary



Quality around transport hubs

Making public transport an attractive mode of mobility is not only a question of creating an efficient traffic system of frequent departures and a network that connects people to where they need to go, it is also a question of making it a good experience. In that context the quality around transport hubs is important - how is the wayfinding? Is it pleasant to wait

there? Is it easy to connect to other modes? In Lausanne, many of the transport hubs are dominated by car traffic and car parking, which affects the waiting experience negatively. Wayfinding is also a challenge sometimes, and the conditions for cyclists could be better, which is important to encourage intermodal interchange.

17% → 21%

2000

2015

The percentage of trips done by public transport has increased by 4% from 2000 to 2015.

Source: Ville de Lausanne: Plan Directeur Communal, 2019



Sound level (dB): Max 80 / Avg 71 / Min 60

Flon

The area around Flon Metro station has varied quality. Towards Flon a roundabout makes the station square seem disconnected from Flon and there is a lack of comfortable invitations to stay. Due to the topography and unclear wayfinding/signage getting to/from the station on foot and bicycle can be challenging. As the most busy hub in the city center, it is important to provide easy and intuitive access to all levels for both pedestrians and cyclists. The existing elevators are not big enough to take more than one bicycle at a time, and there is little bikeparking. Place de l'Europe is used for different street performances. The arches under Grand-Pont form a nice edge towards the east with cafés and sheltered staying opportunities.



Sound level (dB): Max 74 / Avg 69 / Min 60

Saint-François

A church which also serves as a bus stop is a unique and special experience. Yet, the area around the stop easily gets crowded and there's a lack of seating and shelter from rain. The arcades of the church only serve as a passage at the moment but could also provide attractive waiting zones for passengers. The existing signage and info portals are poorly maintained and don't give any further information than waiting times.



Sound level (dB): Max 79 / Avg 69 / Min 59

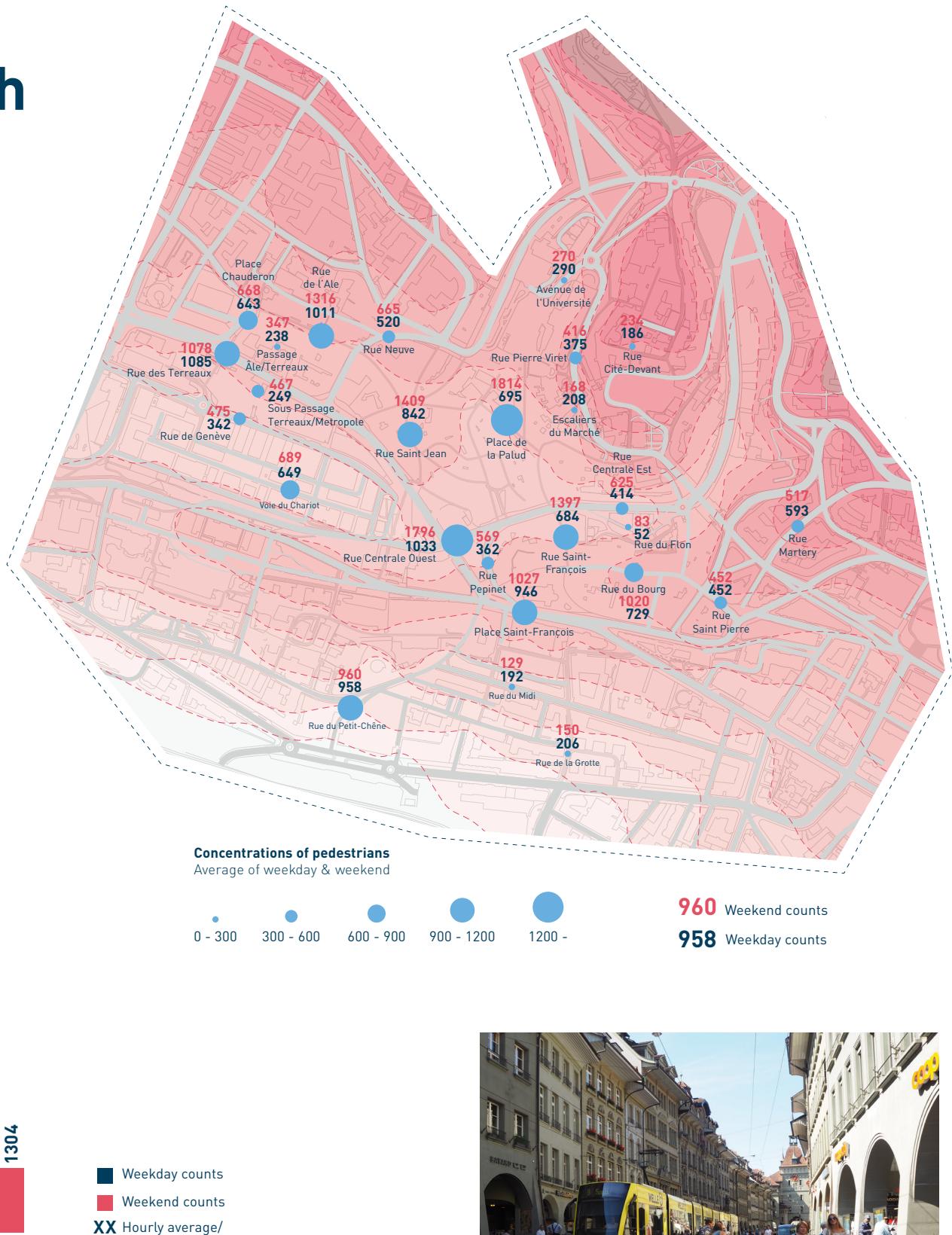
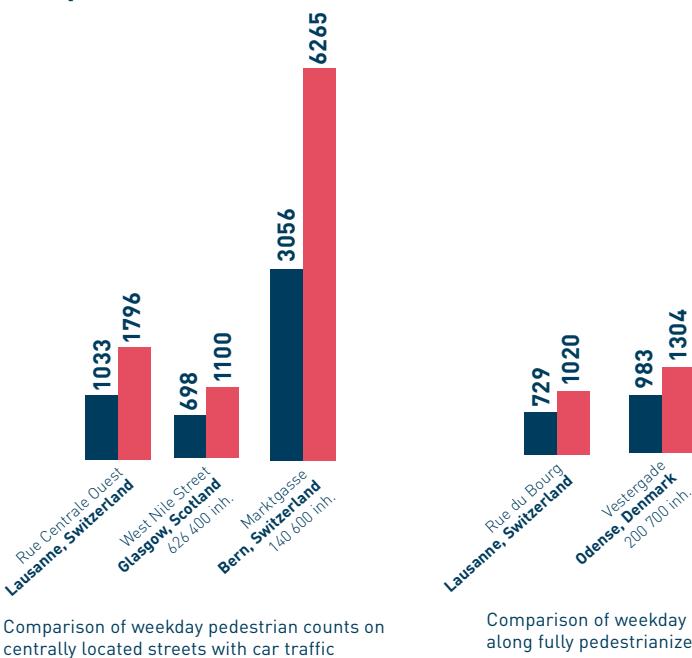
Chauderon

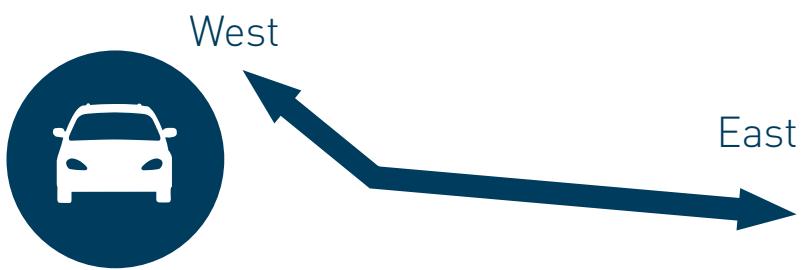
Chauderon is a complex transport hub. It faces a wide traffic corridor with a tunnel for car traffic. Therefore a lot of movement to/from the station happens in the underground passages. The station is an important gateway to the city center with important institutions nearby, such as the library - connections which could be strengthened. Behind the current bus stop shelter there is a small square with trees and benches that provide a more pleasant place to wait and spend time than the actual bus stop close to the traffic.

Walking in a city with high topography

Walking is an important mode of mobility in Lausanne which is also reflected in official modal split numbers for the whole city, where walking represents 42% (2017). The importance of walking may partly be explained by the fact that some parts of the city centre are not served by public transport - see previous page. The survey of pedestrian activity shows that pedestrian numbers are generally highest close to main transport hubs that act as important access points to the city center - or in the pedestrianized streets. Improving conditions for pedestrians could therefore also contribute to making public transport an even more attractive mobility option. As a walking city, Lausanne offers a great compact network of small scale pedestrianized streets, but the topography makes it a challenging city to walk in. Outside the pedestrianized zone, in many places pedestrians do not have high priority.

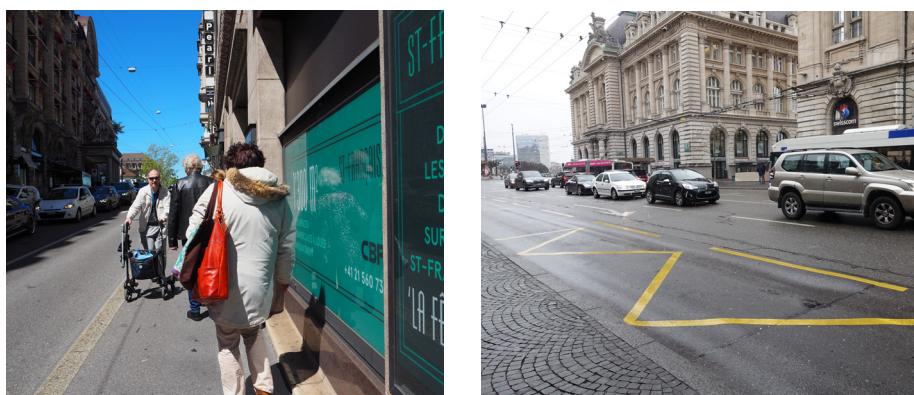
Similar pedestrian volumes in cities of similar size





East-West connections

East-West connections mainly act as traffic corridors for cars and busses, even though they could also be comfortable connections for pedestrians and cyclists as they are generally not very steep. But traffic numbers are high and they are not designed for spending time.

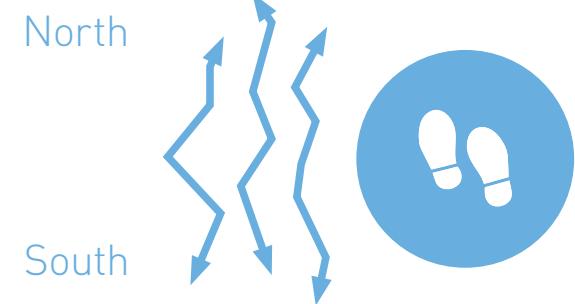


Rue du Grand-Chêne

An important street from the city center to Parc Montbenon but not much protection for pedestrians, and the sidewalk width hardly allows people to pass each other.

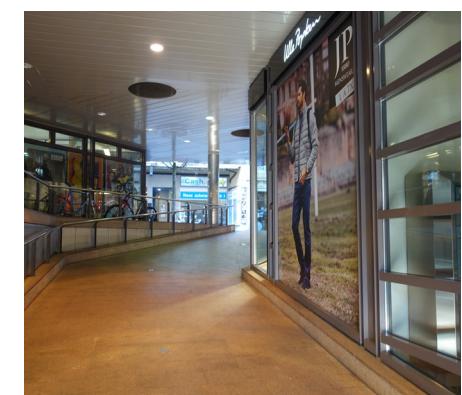
Place Saint-François

Place Saint-François is a central and important place in the city, but the wide street acts as a major barriere in the network. There is no street level crossing on Place Saint-François, that connects the two bus stops. To get from one side of the street to the other, one has to make inconvenient detours to the next street level crossing, either at Avenue Benjamin-Constant, or at Rue du Grand-Pont or in the two underpass.



North-South connections

Most of the North-South connections are less dominated by car traffic. With levels that go up and down and winding alleys, they offer a great variety of walking experiences, but they are also challenging in terms of topography.



Rue du Petit-Chêne

This street is very steep, but it's one of the most used streets by pedestrians in Lausanne. The fine grain detail of the cobblestone pavement gives character to the street but is also a challenge for people with reduced mobility and the many people walking with suitcases, resulting in quite high noise levels. There are also obstacles along the way that make walking uncomfortable.

Passages as alternatives to streets

As a result of the topography and the heavy traffic corridors running through the city center, there is a whole other network of small passages through or between buildings that play an important role in the pedestrian movement patterns in the city.

Use patterns are not reflected in the street design

The public life survey revealed the importance of people walking in the city centre. On those streets where all modes were counted, pedestrians make up 67% of the users. At the individual street level, in most cases a 50/50 division between cars and pedestrians was registered. The survey showed that people on bikes or other wheels like scooters make up between 2-4%.

However, the presence of cars and other motorized transport, including buses, dominates the streetscape, and in many cases the street design prioritizes cars and mopeds/motorcycles, not least with extensive on surface parking.

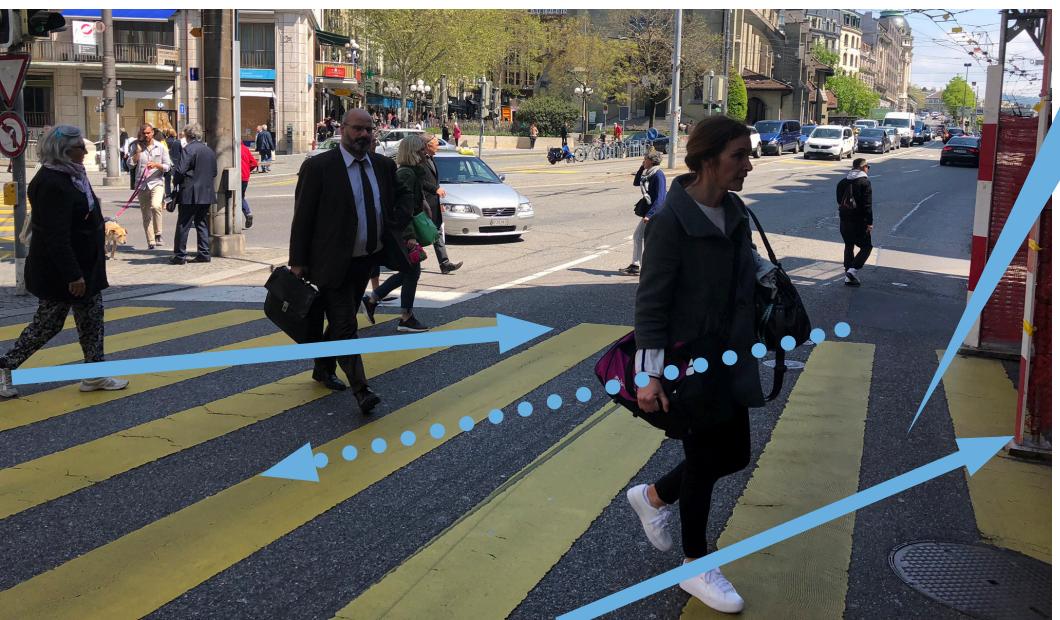


Speed bumps but also bollards send mixed signals - is this made for pedestrians or for cars to go through.



95 seconds

waiting for
green light at
the pedestrian
crossing
Place St.-
Francois.



On Chemin de Mornex,
there is only a sidewalk
on one side of the street
which changes side along
the way.



Getting around on bicycle

Lausanne has the ambition to increase soft mobility in the city. The cycling culture is, however, still challenged with only 2% of trips done by bicycle. Today, the cycling network has a number of important missing links, which makes cycling through the city center a challenge. Some of these missing links are both horizontal along streets but also vertical in terms of connecting different levels in the city. While topography is likely to affect the extent of cycling in the city, it is certainly not impossible, and inspiration can be found in cities such as Aarhus, Trondheim, Auckland and San Francisco.



There are a number of shared zones around the city centre in Lausanne. In some areas differences in speed might be a challenge, and as the number of cyclists and scooters go up the shared zones need to be planned carefully.

LAUSANNE CITY CENTER

Cycling is related to commuting



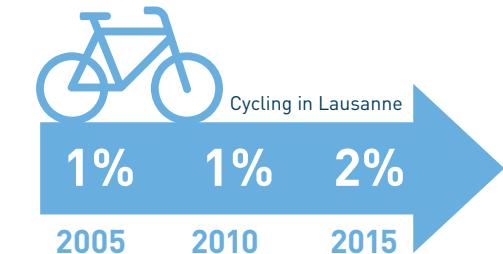
Graph is showing an hourly average of number of cyclists on all measured locations on a weekday, 14.05.2019

Cycling in Trondheim

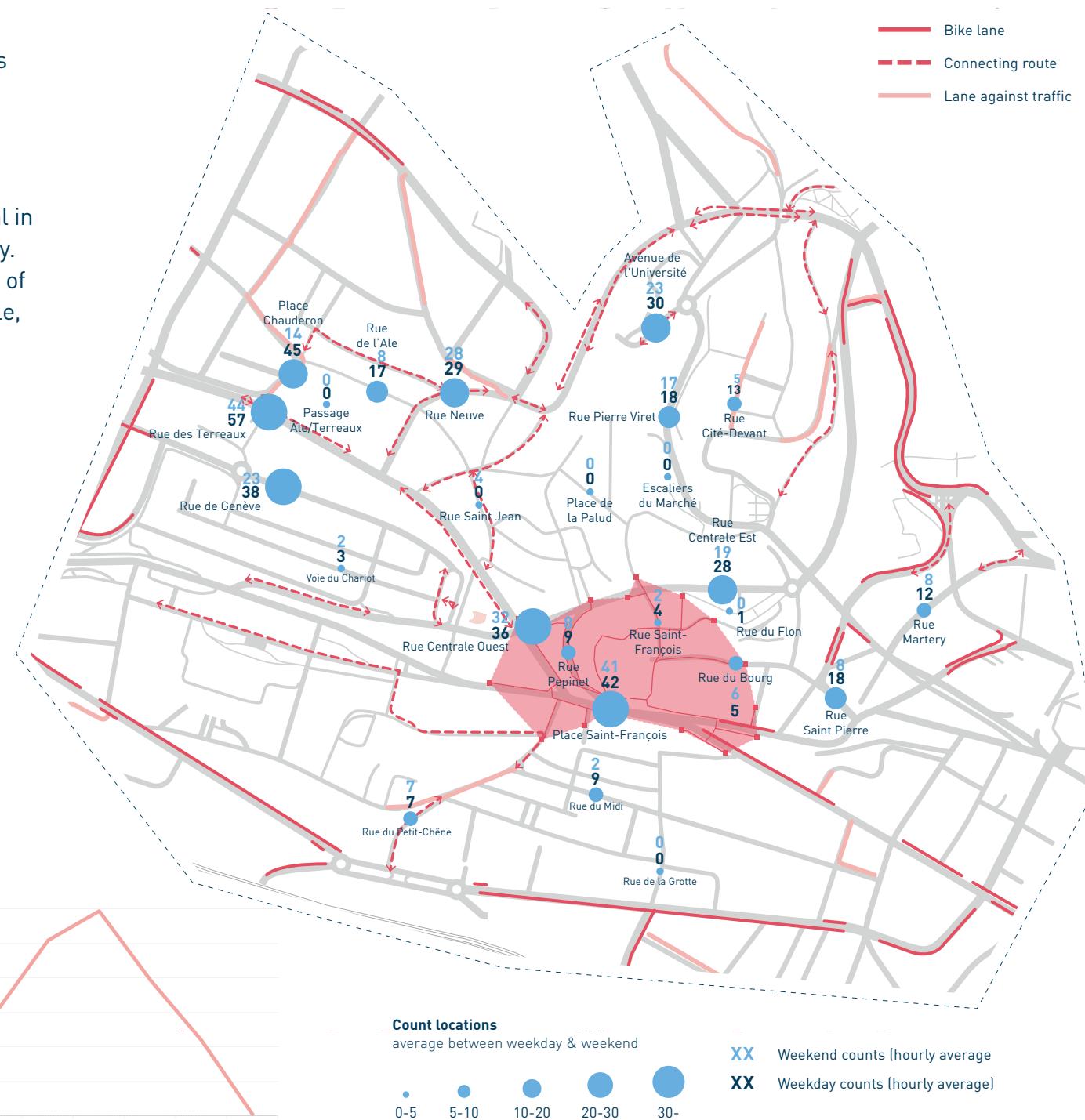
9%
2014

Cycling in Århus

17%
2018



Source: <http://www.epomm.eu/temcs/cities.html>





(Turning) routes placed in the middle of the street

A bicycle lane that is placed in the middle of the street is dangerous for the cyclists. The lane ends at a turning point where cyclists have to stop in the middle of the street to wait for turning left. Furthermore, the lane is not protected by bollards, etc.



Abruptly ending routes

In various parts of the city, bicycle lanes stop abruptly, forcing the cyclists to find alternative routes. The missing links in the overall network make cycling unattractive and are a reason for the stagnating number in the modal split.



The shared zones

Throughout the city center a number of streets are defined as shared zones, allowing both pedestrians and cyclists to move through the space. In a city where the cycling culture is not more developed it is likely to create insecure situations about what to expect from the various modes of mobility.



Bicycle parking

The bicycle parking in Lausanne often seems to be placed randomly. Informal spots for parking tend to be preferred compared to formal bicycle parking in the city. Strategic placement of bicycle parking that allows for a convenient arrival and an efficient connection to different modes of transport/destinations is lacking.



Patchwork of existing routes

A bicycle lane that is lifted from street level is a good solution, but not if it becomes part of the pedestrian path. A lack of space leads to people walking on the bicycle lanes and cyclists driving on the pedestrian path which can result in dangerous situations and unwelcomed accidents. Rue du Grand-Pont.



A lack of space

In some parts of the city, the bicycle lanes abruptly change from being on the street level to going up on the pedestrian path. This is likely to create confusion for cyclists and lead to unsafe conditions, especially in those spots where all of them, road, bicycle path and pedestrian path intersect. Avenue du Théâtre.





Using the city center

City centers perform different roles and invite for different types of life. This chapter looks at the different uses in the city center of Lausanne, the quality of the public realm and how public life is supported by public spaces.

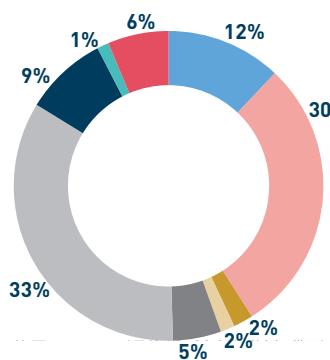
A lively center with a strong commercial heart

The city center of Lausanne attracts people from a large catchment area. As the capital in the province of Vaud it is an important economic driver in the region. 33% of all jobs in Lausanne are in the city center - in total 35.000 jobs and with approximately 5000 enterprises. This means that up to 45.000 people come into the city center every day - for work but equally important to shop. The city center has a strong commercial heart, and the many markets play a very important role in fostering public life.

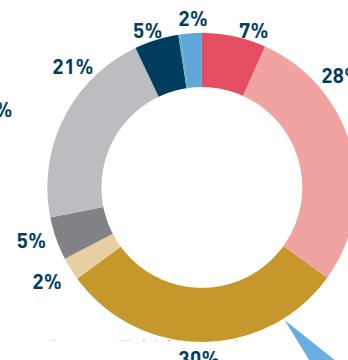
The commercial heart is also the part of the city center most densely populated, and as such also plays the role as a residential neighborhood. The city center has other destinations - cultural institutions and schools/daycares - that can contribute to a lively city center, but they are not very visible in the public realm.

- Commercial heart
- Residential
- Leisure destination
- Tourist destination
- Parks
- Shopping destination
- Markets
- Schools / kindergartens/ education
- Culture (Galleries, museums, theatre, concert halls, cinemas)
- Universities
- Student housing
- ★ Main tourist attractions

Type of activity - Tuesday



Type of activity - Saturday



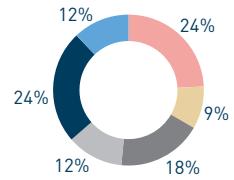
- Waiting for transport
- Eating/drinking
- Engaged in commerce
- Cultural activity
- Active recreation
- Passive recreation
- Using electronics
- Civic work
- Sensitive activity

The most dominant activities on a weekday are passive recreation and sitting at a café - on Saturday it is commercial activity due to the market. For a city known for its cultural scene, there is very little cultural activity in public spaces.

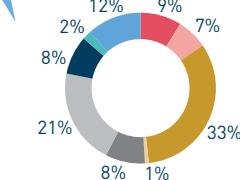


The city center is challenged by the fact that the area between the railway station and the commercial heart has little activity which reinforces the perceived distance between the station and the rest of the city center.

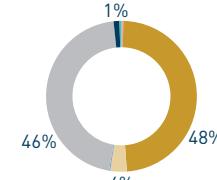
A lot of waiting for transport at Place Saint-François!



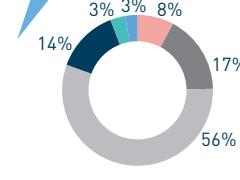
Pré-du-Marché



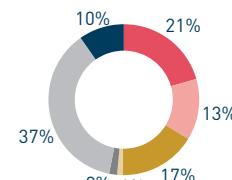
Place de la Riponne



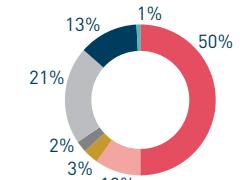
Place Madeleine



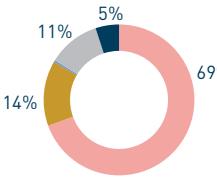
Parc Derrière-Bourg



Place Chauderon

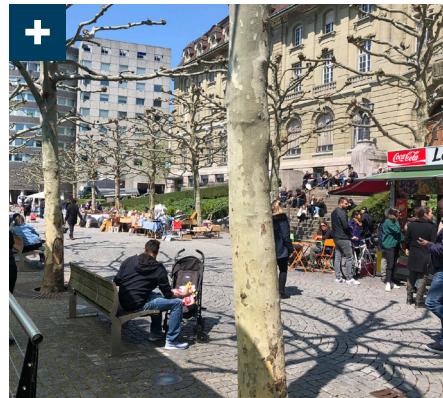


Place Saint-François



Flon

- Waiting for transport
- Eating/drinking
- Engaged in commerce
- Cultural activity
- Active recreation
- Passive recreation
- Using electronics
- Civic work
- Sensitive activity



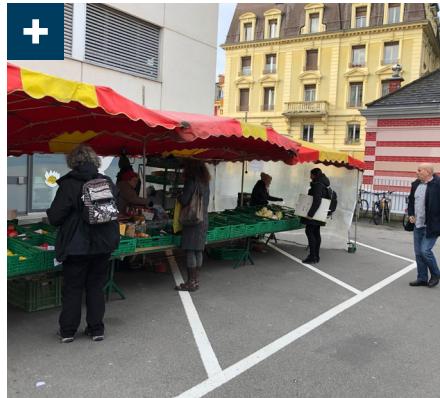
Overlap of different activities

Place Chauderon is a place where necessary and optional staying activity happen at the same time. Many people are naturally waiting for transport here, but it is also a place for commercial activity with small market stands, café life and people just hanging out.



Little playing in the city center

The city center of Lausanne lacks public spaces that invite for informal play which shows in the numbers of staying activity where only 5 % is engaged in physical activity, including playing. New initiatives such as the moveable play pavilion is a positive step in the right direction where different solutions and locations can be tested.



An active market life

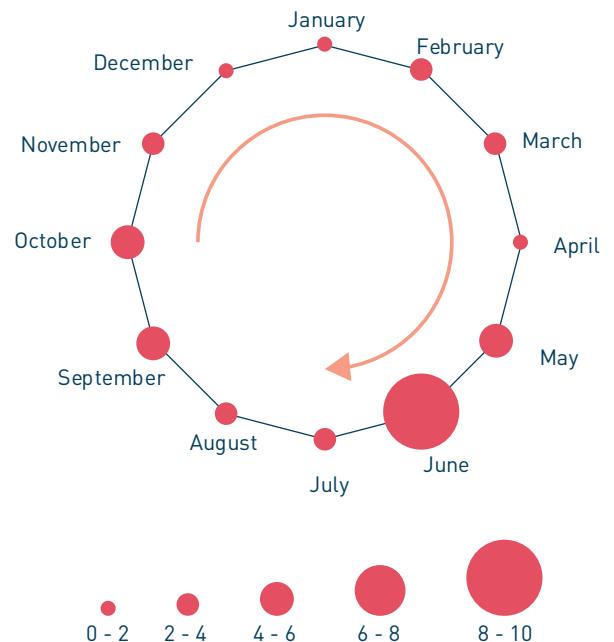
The strong market culture is cherished by locals, and the markets contribute to a lively public realm. Every Wednesday and Saturday, the center of Lausanne is filled with stands displaying fruit and vegetables, cheese, flowers, typical dishes and traditional cuisine as well as flea markets and crafts market.



Music and Film festivals

Numerous music and film festivals take place in the city of Lausanne and the surrounding region throughout the year. The quality of the programmes, the infrastructures and the exceptionally scenic setting near Lac Léman all make for unmissable gatherings.

Event calendar



Lausanne has a number of events and festivals that bring activity to the squares and parks. These are, however, concentrated from May to October, and there is a potential to develop more events in winter and early spring.

More public life at the weekend

Lausanne city center is much more busy with public life on the Saturday than on a regular weekday. In terms of staying activity there is almost double as many people on a Saturday. The daily rhythm of activity changes across weekday and Saturday. On Saturday the peak of staying activity is in the morning at 11 (due to the markets) whereas the peak is between 5 and 7 pm on the weekday.

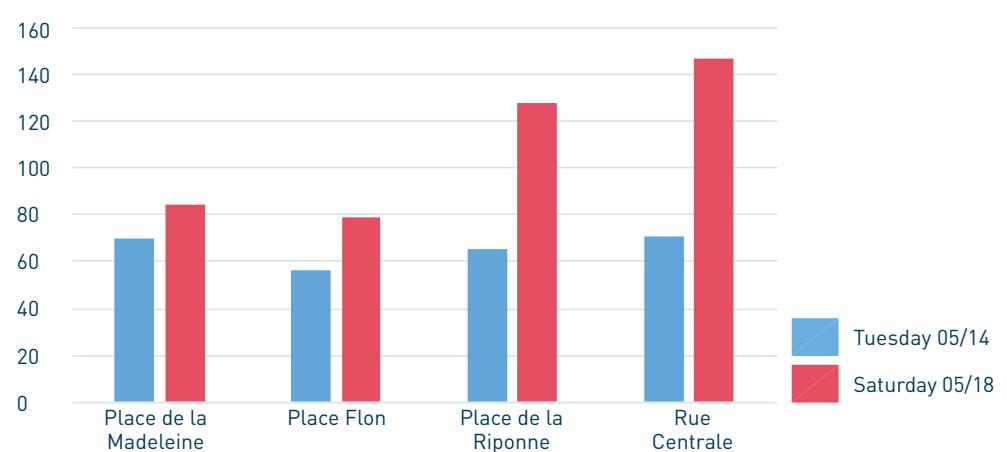
Public life activity drops in the evening - both during the week and on a Saturday! - and it is concentrated to a few places

Avg. amount of people staying per hour across all registered sites in Lausanne

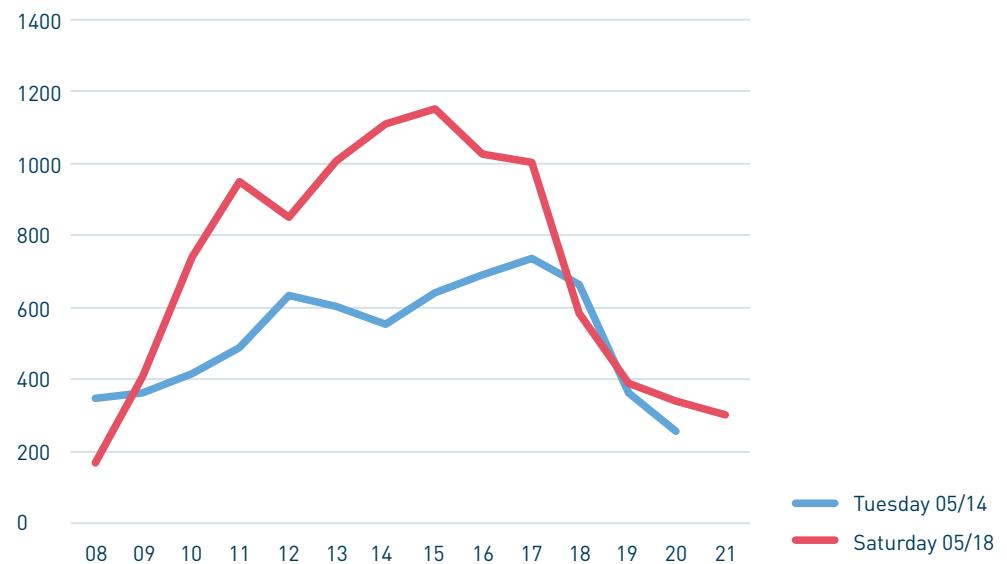
LAUSANNE CITY CENTER



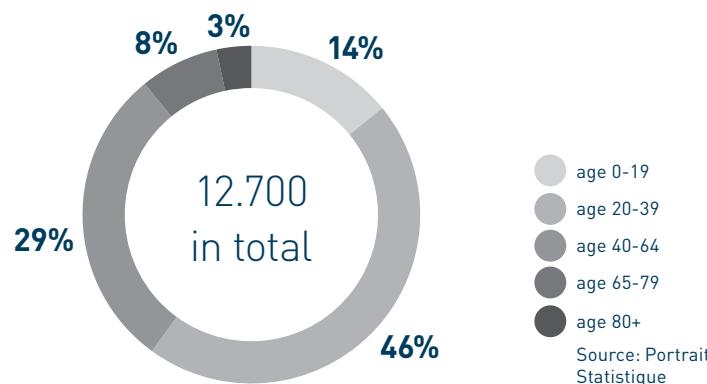
The registered sites with most evening staying activity.
Based on registered staying activity after 18:00



Avg. amount of pedestrians passing per hour across all registered sites in Lausanne

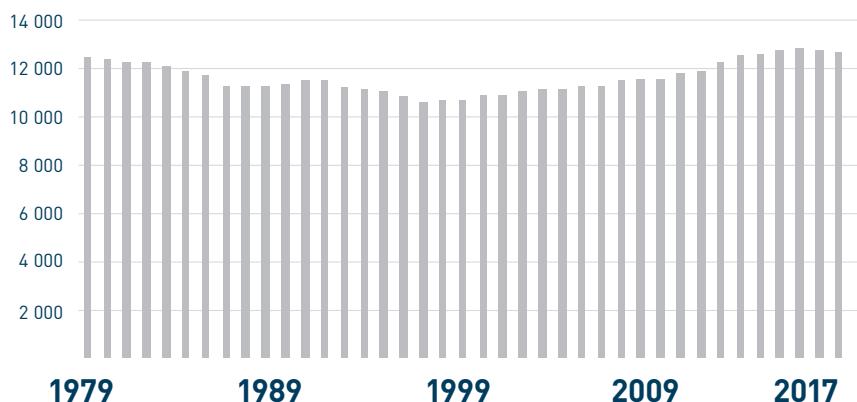


A young population in the city centre



Demographic data shows that young people between 20 and 39 make up a big share of the population in the city centre. There is also a high number of children and teenagers between 0 and 19 years. Middle aged and elderly people between 65 and older make up the smallest share - 11% - of the population.

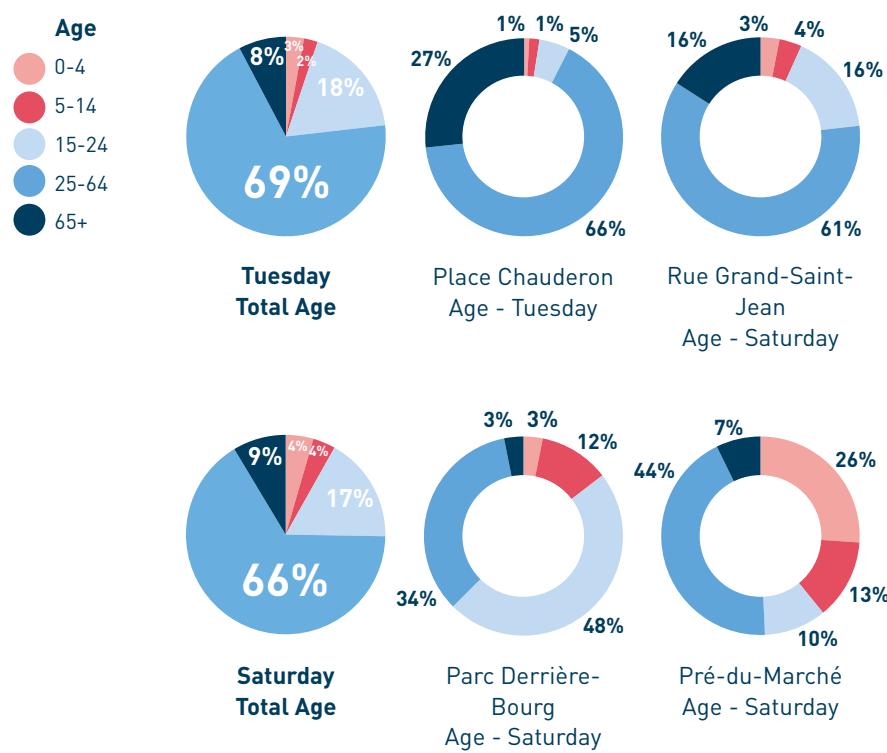
Stable population size in the city centre



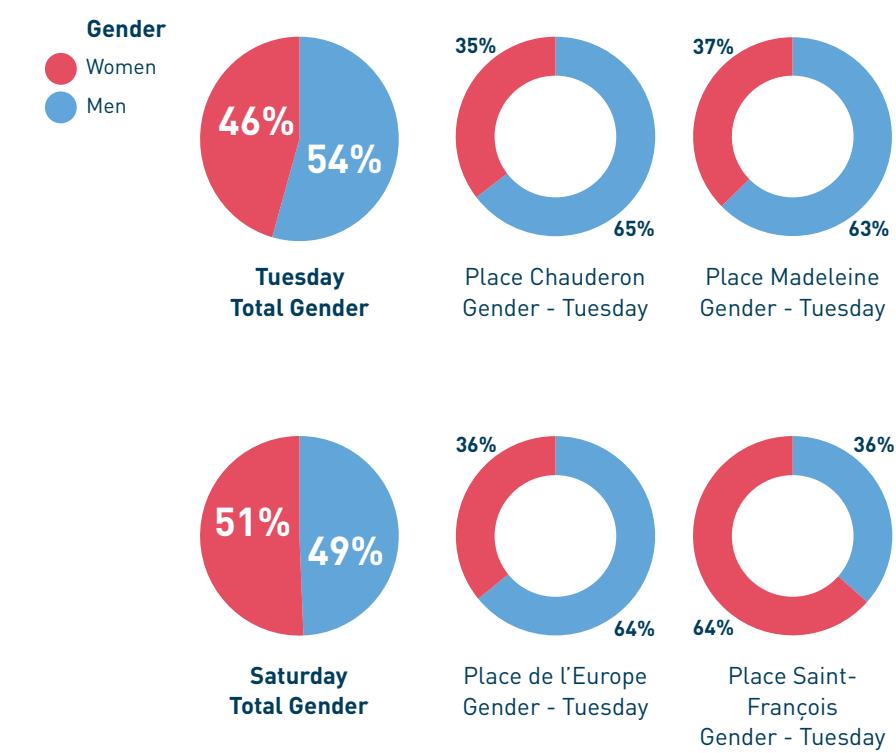
The population growth in Lausanne's city center has remained quite stable in the last decades. There are slight peaks at the end of the 70's and around 2017. The population number was at its lowest at the end of the 90's but it never fell under 10.000. The population has recently gone down slightly with its current population of 12.700.

Using public space - divided by age & gender

Compared to the demographic of residents, elderly are underrepresented in public spaces by 3%, but even more remarkable is that children under the age of 15 only make up 5% of people staying in public space. Some public spaces are truly inviting for all age groups. Below showcases the four public spaces with the most distribution across age groups - most remarkable is Pré du Marché.

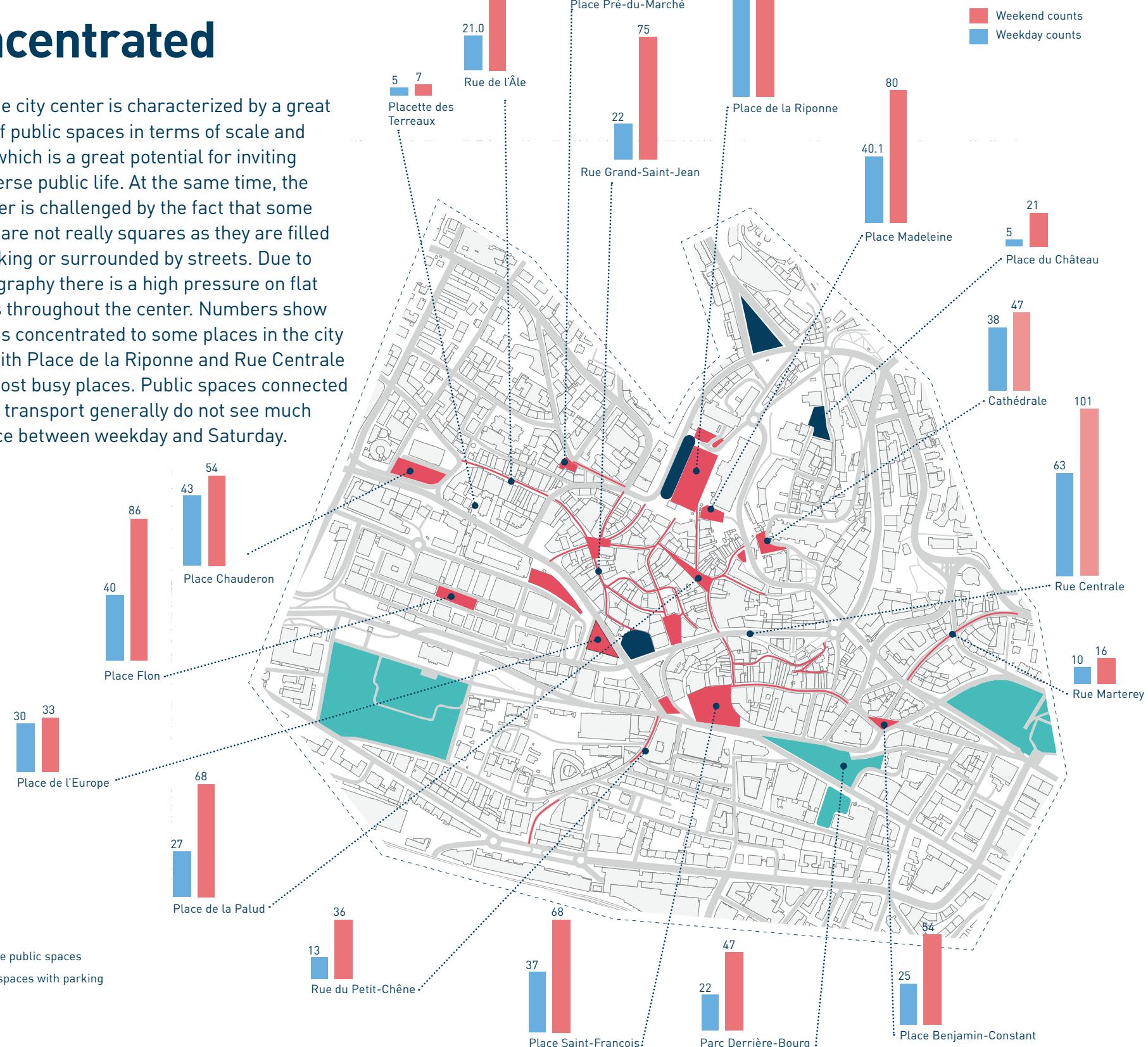


The split between ages and genders vary from place to place and differs between weekday and weekend. The general trend is that there are a few percent more men in public spaces during the weekdays, while it is an even split between men and women on weekends. But the dominance of men in places like Place Chauderon and Place de l'Europe might cause some safety concerns. Below are examples of spaces that divert from the overall trend, which are most present during the week than on the Saturday.



Public life is concentrated

Lausanne city center is characterized by a great variety of public spaces in terms of scale and design, which is a great potential for inviting for a diverse public life. At the same time, the city center is challenged by the fact that some squares are not really squares as they are filled with parking or surrounded by streets. Due to the topography there is a high pressure on flat surfaces throughout the center. Numbers show that life is concentrated to some places in the city center with Place de la Riponne and Rue Centrale as the most busy places. Public spaces connected to public transport generally do not see much difference between weekday and Saturday.

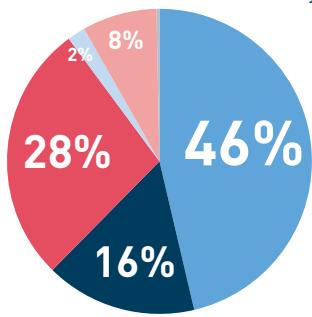


A need for more seating in the city center

Most of the staying activity in Lausanne is done standing and only 16% is 'sitting public'. This pattern supports public space registrations showing that there is a lack of public seating throughout the city center, especially along the streets where they are equally needed in order to give opportunities for resting, but also in order for the streets to play a more important role as public spaces rather than just spaces for movement. The lack of seating is especially present along the pedestrianized streets of Rue de Bourg and Rue Saint-François - or in the beautiful side street Rue de la Paix which provides great views.



Posture - All sites - Tuesday



- Standing
- Sitting - public
- Sitting - commercial
- Sitting - private
- Sitting - informal
- Lying down



Need for non-commercial seating

While the cafés and restaurants on Place Pepinet are indeed popular, people also choose to take more informal lunch breaks in public space, and there is a need for more and better seating that can accommodate those needs.



Flexible flat edge surfaces on Rue Grand-Saint-Jean

The city has done a good job by making use of the surfaces where the facade meets the street scape. The terraced levels allow people to use them in a flexible way, such as for cafe seating, while people can still use the steep middle zone to walk on.



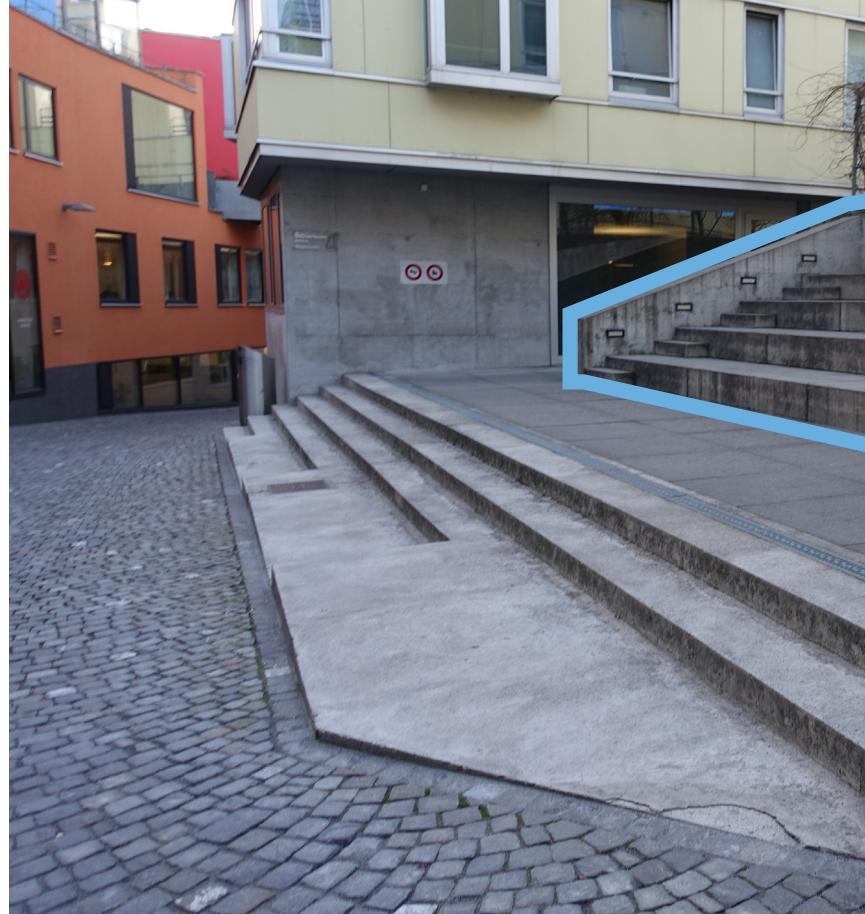
Maximize the use of space

At the junction of some pedestrian streets in Lausanne, there are in-between spaces that are not overlapping with the natural flow of people. These spaces are used as public seating. The terrace design allows people to enjoy a break and watch people passing by on the bustling pedestrian streets.

Invitations to stay in the city center

Invitation to stay is not only about providing the right number of benches. The quality of seating options have a great impact on the use of public space. In the city center of Lausanne public seating options vary a lot - both in terms of materials, lay-out and how they are placed in space. Many seating options are on hard and cold surfaces, and the lay-out not often stimulate conversation and socializing. Positive sensory experience and interesting views are part of the seating experience, and many seating options lack this.

Alternative seating options are great, but these seating stairs don't look inviting to sit on.



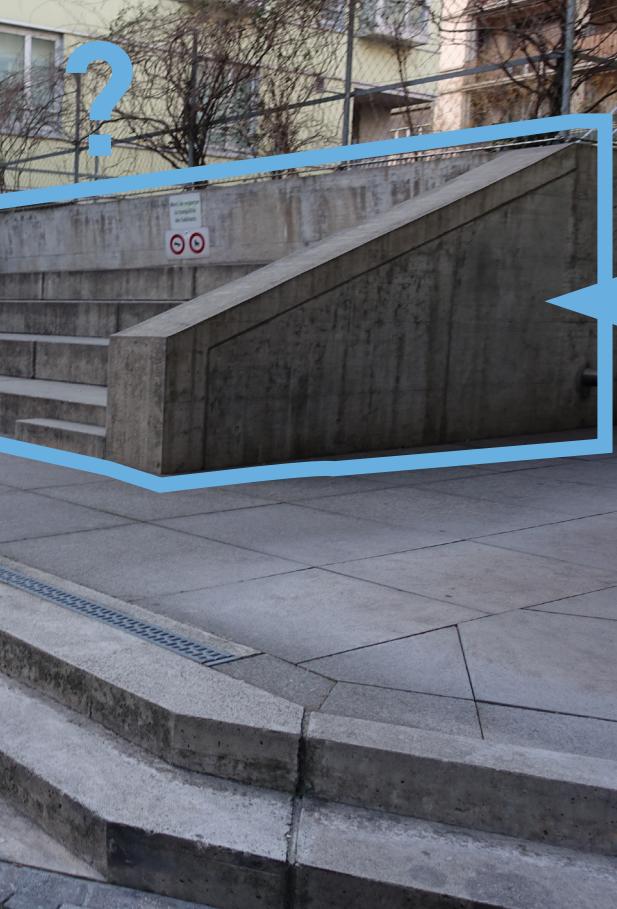
A multifunctional wall to lean against and sit on. A welcome seating opportunity that relieves some pressure from public seating necessities on flat surfaces.



Unused motor bike parking is taking away space for more public seating and does not provide a nice environment for sitting and relaxing.

Parking for motorbikes takes up more space than the public seating. A clear sign of prioritisation





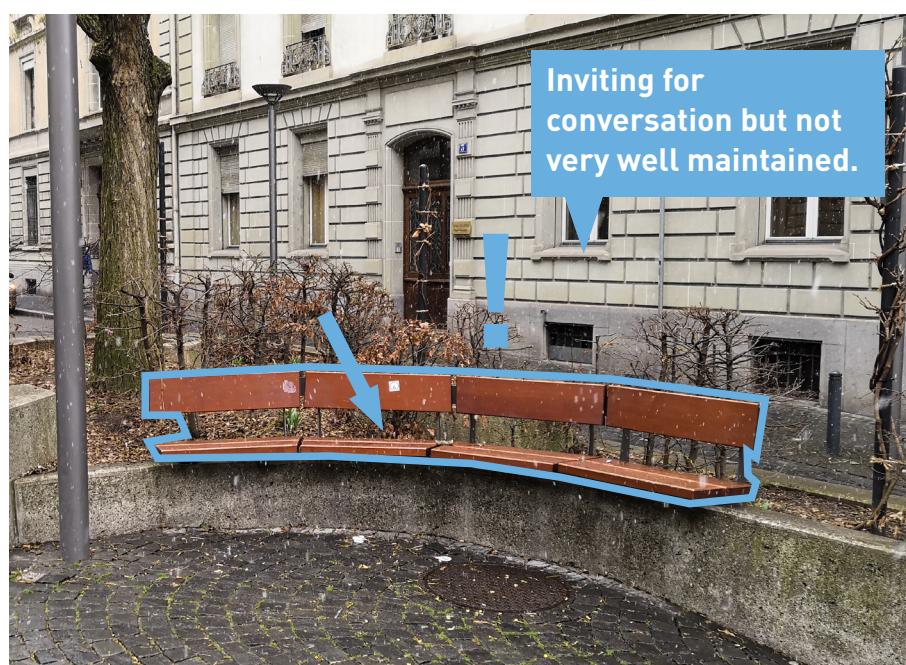
Flattened surfaces as a public space are rare and good to have, but they lack inviting program, diverse public seating, weather protection, etc.



Benches are placed in the middle of space, providing little sense of protection.



Facade frontages give opportunities to sit at Place de la Gare.



Inviting for conversation but not very well maintained.

This seating allows for some talking and socialisation, that's good.



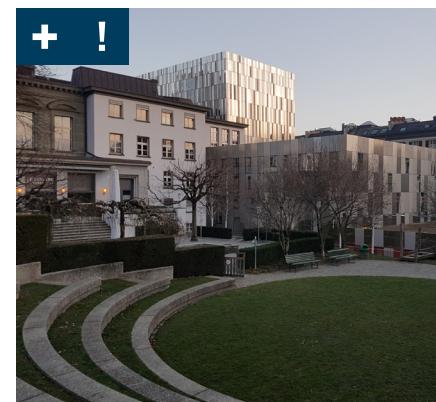
Seating with a view to trash bins.

Most of the public seating is concrete or stone and some are not even covered by wood. They are not inviting to sit on, as they can get very hot in summer and very cold in winter - and with no backrest to lean on.

Functions and the surrounding public space

Lausanne has a lot of culture and entertainment to offer. There are interesting public functions throughout the city, and there are many advertisements on boards placed along the sidewalks, for theater, opera, cinema, etc. Yet the life inside these institutions are not represented in public space. Many public buildings are introvert and they do not communicate well with the surrounding public space.

The public library is one of the important generators of life and activity in the city center with many different types of activities and programs, but it is disconnected from the street space, and the building is very introvert.



Everyday institutions have a great potential

Throughout the city center there are a number of everyday institutions, and they can become important drivers for animating and upgrading public space. Sometimes they could, however, be more visible and integrated with public space. Photos above: sports center in Rue de la Tour with open facades but they are blocked by bike parking. On Place de la Riponne, however, the recreational area for kids in the north west corner of the square is making use of public space for playing and setting up plant boxes.

46

The Opera

The Opera is an important cultural institution with an attractive park to the west but facing a heavy traffic corridor to the north, where the entrance is. The entrance suffers from very limited space on the sidewalk and is not used as a catalyst for creating an attractive public space. The building appears closed towards both the street and the park and does not clearly communicate about the activities happening inside.

A cultural center with a fence

The entrance to Espace Culturel des Terreaux is placed behind a fence and lacks a good connection to the street or the small Placette des Terreaux. With closed facades on all sides the life inside the cultural center is not visible from the outside and does not contribute to a vibrant public realm.

A mix of private and public open spaces

There is a patchwork of private and public spaces in Lausanne. Some are small green pockets, others are differently paved side streets or passages that link the pedestrian network, whereas others are formally, manicured parks with fences around. It is often not quite clear whether these are publicly accessible or not. Le Flon i.e. is a privately owned neighbourhood which is open to public. It plays a distinct role in the city, offering art galleries, restaurants and other entertainment.

Château Saint-Maire is home to the cantonal government and thus a public building, but it is unclear whether the space above the stairs is in fact open and intended for the public to use.



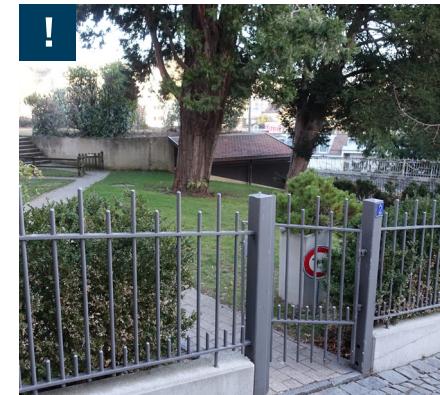
Flon, private but publicly accessible

Being embedded in a unique topographic setting, the area Flon has a special character, but not just because of its location. It is a private development that is open to the public. Walking through it, one can feel that it is different from its adjacent neighborhoods. Yet it is an interesting alternative to other parts of the city center and it can be accessed by everyone.



Private, manicured pocket parks

A formally manicured and well maintained public space. This space is ambiguous in terms of accessibility, leaving one wondering whether it is possible to enter or not. Considering the lack of flat surfaces in the city center of Lausanne, these spaces represent a precious resource to spend time in - and not only to look at from afar.



Private gardens present in the city center

This private garden is at a prominent spot, the intersection of two pedestrian streets in the old town. It is not quite clear whether it is accessible to public or not. It looks inviting to enter but it is fenced off.



Private passages linking pedestrian streets

Some passages have an abrupt change in design and appearance. They can be used by the public, but are often not well maintained and poorly designed. A lack of communication between public and private seems to result in solutions such as this one.





Experiencing public space at eye level

This chapter goes into detail with elements that make up a public space and how these are important for the human experience at eye-level when moving and spending time in the city center of Lausanne.

Moving and navigating in the city center

The different levels, all the stairs, the winding streets and the fantastic views make Lausanne a unique and exciting adventure. Taking a walk through the city can be like a 'treasure hunt'. The maze of streets creates interesting viewpoints and surprising sights that suddenly pop up, such as Tour de l'Ale or Escaliers du Marché. However, a city that has to deal with such an extreme verticality needs to pay more attention to those who are in special needs. Accessibility for all user groups is not always guaranteed and wayfinding in the city center is a big challenge.



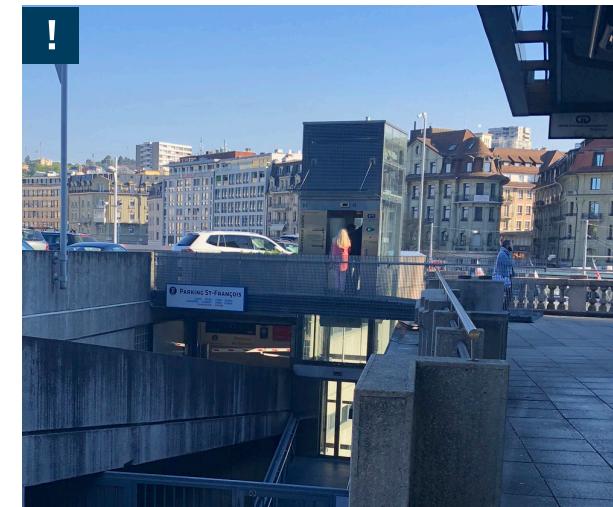
Obstacles

Walking through the city of Lausanne sometimes forces one to take detours. There are obstacles all around, such as trash bins and grit bins, i.e. at the access points of street level crossings but also advertisement boards placed along the sidewalks. Sometimes they are too high in number and they block important desire lines of pedestrians.



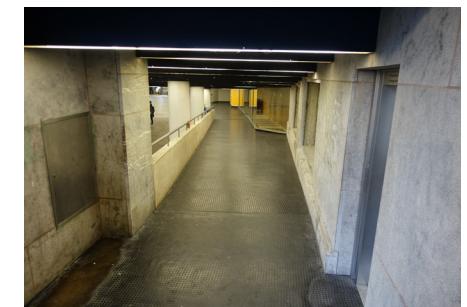
Accessibility

The city has a lot of elevators that play a decisive role, being a connector between different levels. Considering the extreme topography of the city, the people with reduced mobility highly rely on them. The elevators could play a stronger role as a way finding element and become part of an inviting public space that vertically links the different levels. Terrasse Jean-Monnet.

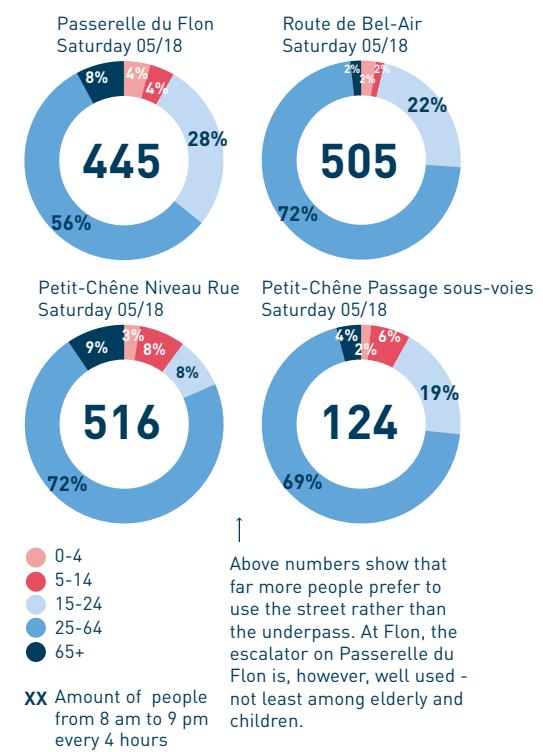
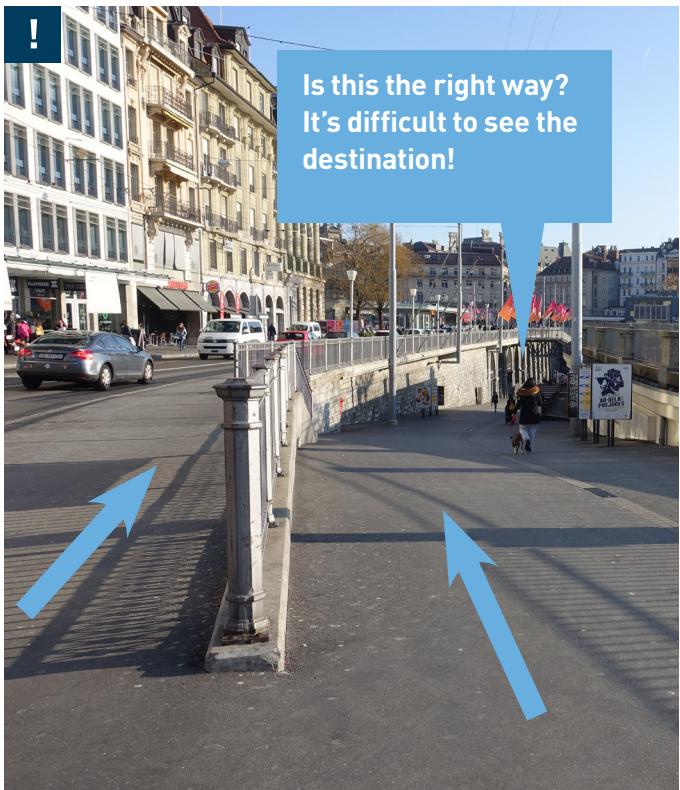


Wayfinding

Due to the topography escalators and elevators are an important part of the pedestrian network, but they are not always easy to find, nor is it clear where they connect to. Rue du Grand-Chêne.



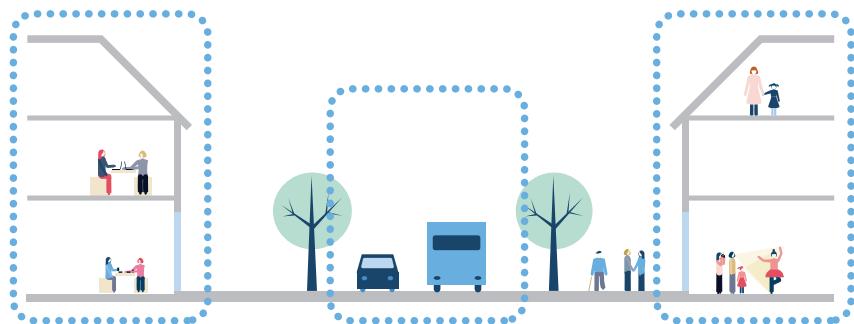
The way underpasses are embedded in the street network and their complex linking can hinder orientation around the exits. And the underpasses often take up a lot of space, thus dominating the surroundings.



The streets as public space

Open space in cities is often a scarce resource. As streets account for much of that space they need to perform on many levels and serve many purposes. Indeed, they play an important role as public space in the city. Streets that are perceived and planned in silos do not often account for the human experience. Planning streets as public spaces implies a focus on the facades of buildings, the edge zone but also the curb zone. This holistic approach allows us to discover unused potential in many streets of Lausanne.

How streets are most often planned:



How streets are actually experienced:



Frontages

The design of buildings' ground floor frontages has a high impact on the attractiveness of the public realm. The frontages are the interface of the urban environment, and contain the openings through which we see, hear, smell and engage in the city's million-faceted palette of activities. On the ground floor and at eye-level, we come close to the city. Here in Rue de la Paix, big windows and details in the facades provide positive experiences at eye-level.



Edge Zones

Edge zones are the threshold between the buildings and the street. They can communicate different degrees of private or public zones and may also be used to communicate what is inside the building, perhaps invite people to stop and in the edge zone different elements can add to a more stimulating experience of the public space. Here at Place Saint-François flowers provide a more soft edge, but it is not friendly in terms of sitting.



Curbzones

It is important to think of the curbside as an integrated part of the street scape and therefore of the public space. The design and use of curbzone can support the feeling of protection and safety, as well as affect the experience of the street as a barrierer or not. Often you will find motorcycle or car parking in this zone in Lausanne.

The frontages

The edge zone

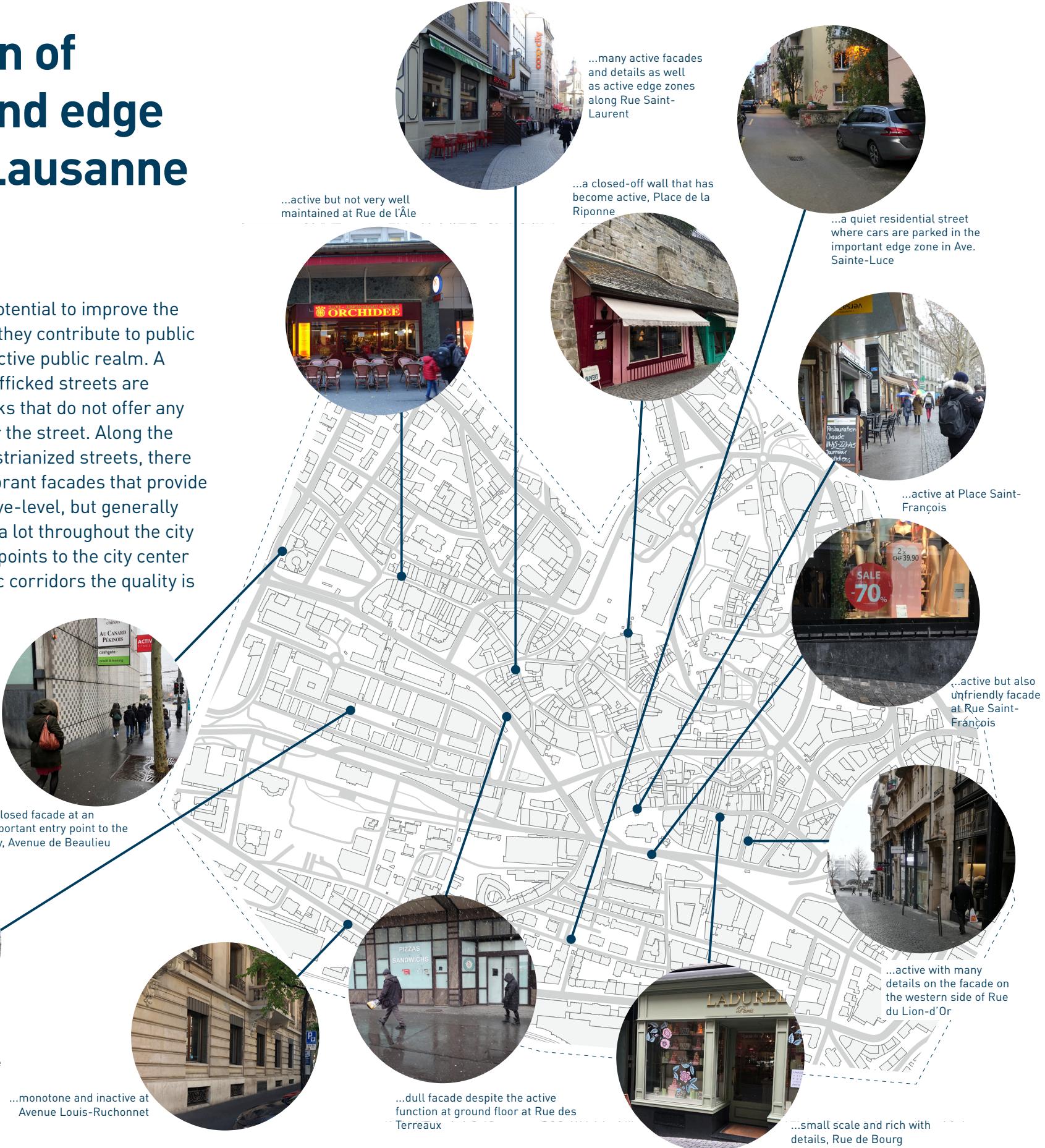
The curb zone

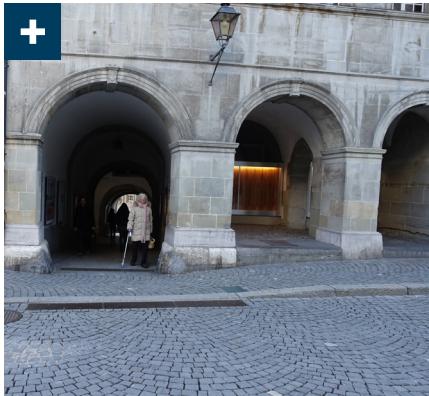
Open space makes up 20-30% of a city, and streets often account for 80% of that open space. (NACTO The Urban Street Design Guide)

A variation of facades and edge zones in Lausanne

In Lausanne, there is a potential to improve the edge zones in a way that they contribute to public life, making a more attractive public realm. A number of the heavily trafficked streets are characterized by set-backs that do not offer any quality to the buildings or the street. Along the small scaled, often pedestrianized streets, there are many examples of vibrant facades that provide positive experiences at eye-level, but generally the facade quality varies a lot throughout the city center. Around the entry points to the city center and along the main traffic corridors the quality is generally not very high.

Examples include...





Arcades

Some of Lausanne's historical buildings have great arcades. They could, however, be used in a more diverse way. Most of them simply act as transit spaces for pedestrians. Arcades, such as the one at Rue Mauborget, have the potential to be inviting spaces with protection from weather, providing seating, diverse urban furniture, a café, etc.



It's in the small detail

A simple gesture of using the facade to create a nice edge zone, where it is possible to stop and sit - or just a nice detail to look at when walking by. Rue du Midi.



Level changes create unused edge zones

Entrances drawn back from the street, but only connected via small bridges, and the green space between building and street becomes inaccessible and without any function, therefore not contributing to an active and attractive street scape. Rue de Beau-Séjour.



Inactive set-backs

A missed opportunity for using the set-back of a building - in this case the École de Commerce - to create a nice entrance for quick impulsive meetings. Instead it is used for motorcycle parking. Rue du Midi.



Beautiful but closed historical buildings

There are a lot of very beautiful historical buildings in Lausanne's city center. Due to their traditional, representative and mostly exclusive design, they, however, often appear closed off from the surrounding public space and do not offer any activity at ground floor.



Set-backs affect human scale

Here a set-back is used to create a slip lane for car parking which creates a street that lacks details at a human scale and it also adds to the street becoming a barrier. Avenue du Théâtre.

A mix of materials and shapes in public space

Lausanne's public space design varies a lot and so do the materials of its urban furniture. A patchwork of different materials and textures dominate the public spaces of the city center. They are combined in different ways and often poorly maintained. This incoherence weakens the identity and the patchwork of pavements and the dominance of the different signage boards create a somewhat messy character in some parts of the city center.



Art in public space with options to sit on is great, but it would be better if the design also invites people to sit.



Paving changes in the city

Lausanne's winding pedestrian streets are charming, but their paving changes constantly. A lack of coherence results in streets with cobblestones in the middle zone and asphalt in the edge zone abruptly jumping to the exact opposite and vice versa.



Signage and obstacles

Some of the small pedestrianized streets are dominated by shop signs. It creates a somewhat messy impression, but it also creates obstacles for the pedestrians and minimizes the actual space for walking in the narrow streets.



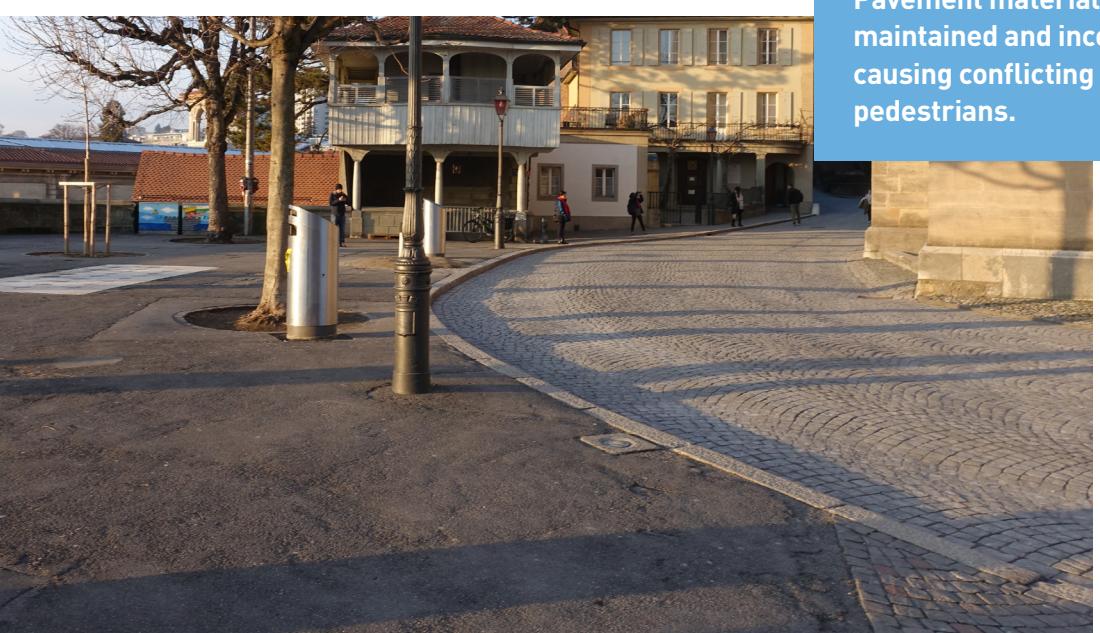
Urban furniture

There doesn't seem to be a common concept of materials and shapes used in Lausanne's urban furniture. It can become messy if the amount of different materials and styles vary a lot. The public seating design is often simply linear shaped and doesn't allow for communication and interaction. It avoids talkscapes and communication.



Maintenance

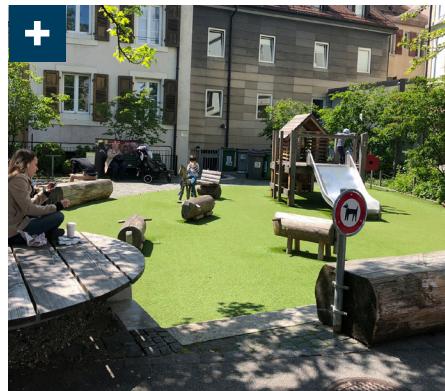
The inner city's beautiful architecture and the lovely cobblestone streets are fantastic, but some pavements are badly maintained.



The atmosphere of the public spaces

Many different things affect the atmosphere of a place - the level and type of activity and the various sensory experiences. In the city center of Lausanne, the most commonly used materials are concrete, asphalt and stone. There is a general lack of permeable, green surfaces and retention zones for climate adaptation within the city center. This causes heat accumulation in summer and an increased perception of cold in winter. These are all factors that affect the human experience.

Place Madeleine is a treasure in the city, offering a nice human scale while providing a more 'soft' experience with the gravel and grass - in addition to trees that also provide shade.



A local pocket park

Placette Pré-du-Marché is an example of a small pocket park that offers a more local atmosphere with greenery and furniture of soft materials.



Concrete structures in a green space

The lower plateau of Parc Montbenon offering fantastic views is unfortunately dominated by the big concrete parking structure, thus impacting the green experience of the parc.



Asphalt sidewalks

Many streets have a 'hard' feel as asphalt dominates the street scape. They lack soft surfaces, such as permeable greenery, trees and lighter materials on the sidewalk.

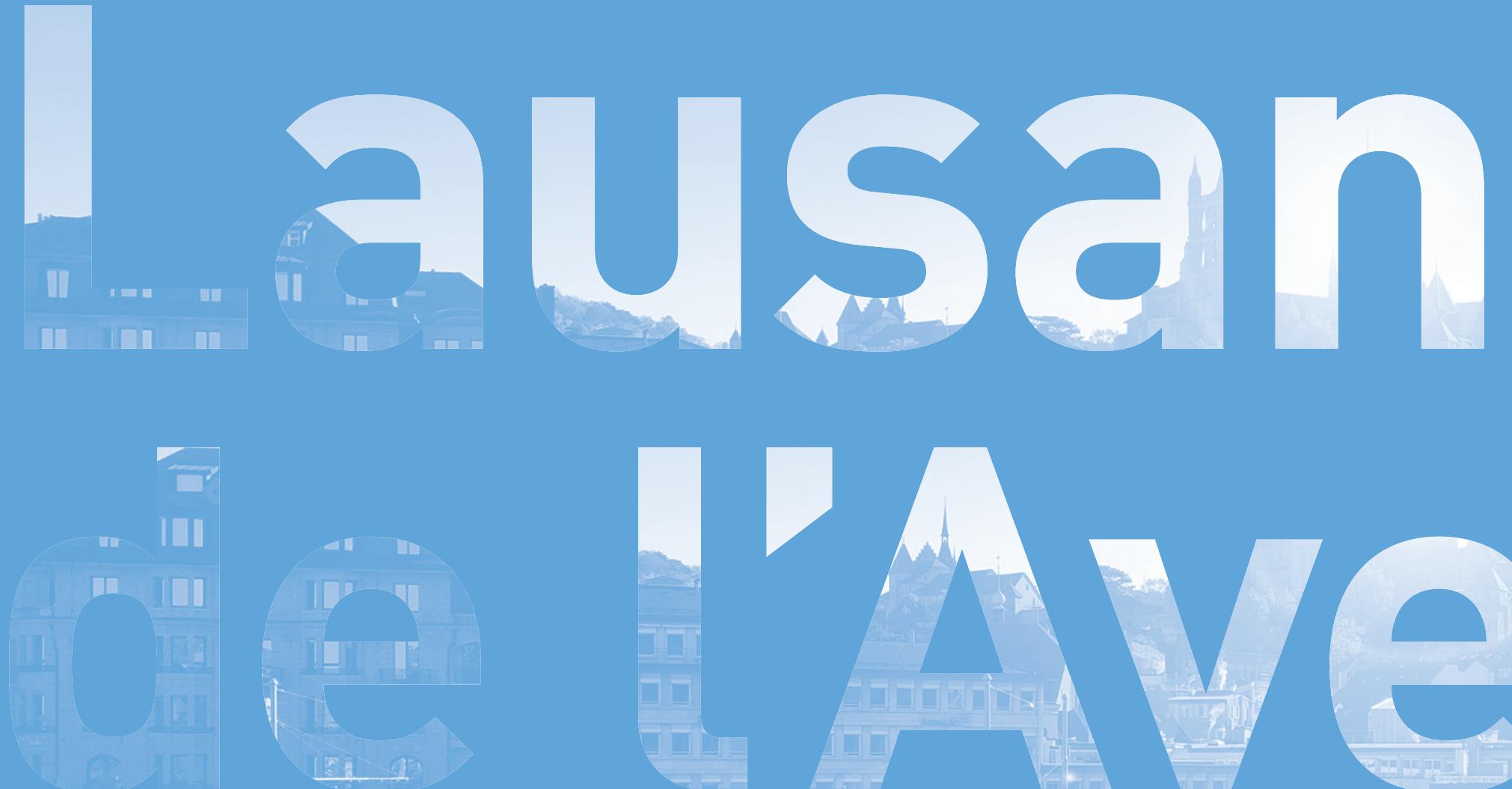


Hard materials in the urban furniture

A hard shaped designed urban furniture is present in the city center. Most of the public seating is concrete or stone and some are not even covered by wood. They are not inviting to sit on, plus they can get very hot in summer and very cold in winter.



A complex public space which is both formal and informal at the same time, with zones of very different kind of activities. It is also a public space defined by its hard surfaces and materials.



Recommendations

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enir

Vision

In the future, Lausanne will be a small, big city with a cosmopolitan atmosphere that has maintained and further developed on its unique characteristics such as fanstastic views, strong market culture, and a good social mix. The character of the different neighbourhoods will be strengthened focusing on the every day life with a strong presence of art and culture.

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The pedestrian environments and extensive network of public transport will be further developed through high quality public spaces, and the city center will in the future provide a good balance between the different mobility modes, with less dominance of motorized transport. This is to encourage more people to walk and cycle, while inviting for a vibrant and varied public life for all user groups, not least making the city center more playful for children of all ages.

Inviting public spaces will be strengthened through more green and blue experiences that also serve to make the city center more climate resilient and providing a great variety in public space ambiances. All this will be done in a spirit of collaboration and engagement, where all resources are put into play.

Public spaces that provide a good balance between the different modes of mobility and invite for more active mobility



Celebrate and build on the unique character of Lausanne



A network of different types of public spaces that invite for a rich and varied public life



Key moves

Mobility

- 1 A more balanced traffic system for the future
- 2 More love to people walking and cycling
- 3 Streets as public space

Character

- 3 Climate adaption with green and blue experiences
- 4 Celebrate the topography
- 5 A beautiful and strong Lausanne character

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Space & Life

- 6 Public spaces that invite for public life
- 7 A good every day life for everyone
- 8 The city center as an arena for activity and engagement





I

Mobility

The future of mobility in Lausanne will be a shift from the current situation where public spaces are dominated by car traffic and public transport to a city center which is much more balanced and provides more - and attractive - options, including walking and cycling. People need to use different modes at different times, and therefore it is important for the different modes to co-exist allowing for easy interchange - all without compromising the need to also create public spaces that invite for public life.

1

A more balanced traffic system for the future



What

Reduce the impact of motorized vehicles

Lower speeds and reduction in the number of motorized vehicles can help to reduce the barrier effect of traffic corridors and increase walkability.

Where: e.g. Rue des Terreaux, Rue du Grand-Pont, Rue de Genève, Avenue du Théâtre and Avenue Benjamin-Constant.

Reduce street parking (cars & motorcycles)

Less street parking will make it easier to cross the street and free space for a comfortable curbzone.

Integrate public transport nodes into the network of pedestrian and cyclists

Make the public transport options attractive to use by making interchange between mobility modes easy - both by foot and on bike. This includes good bike parking facilities close to bus and metro stops.

Where: e.g. Place Saint-Francois, Place Chauderon, Place de l'Europe, Place de la

Gare and along future tram lines.

Create attractive waiting conditions around bus stops and future tram and metro stops

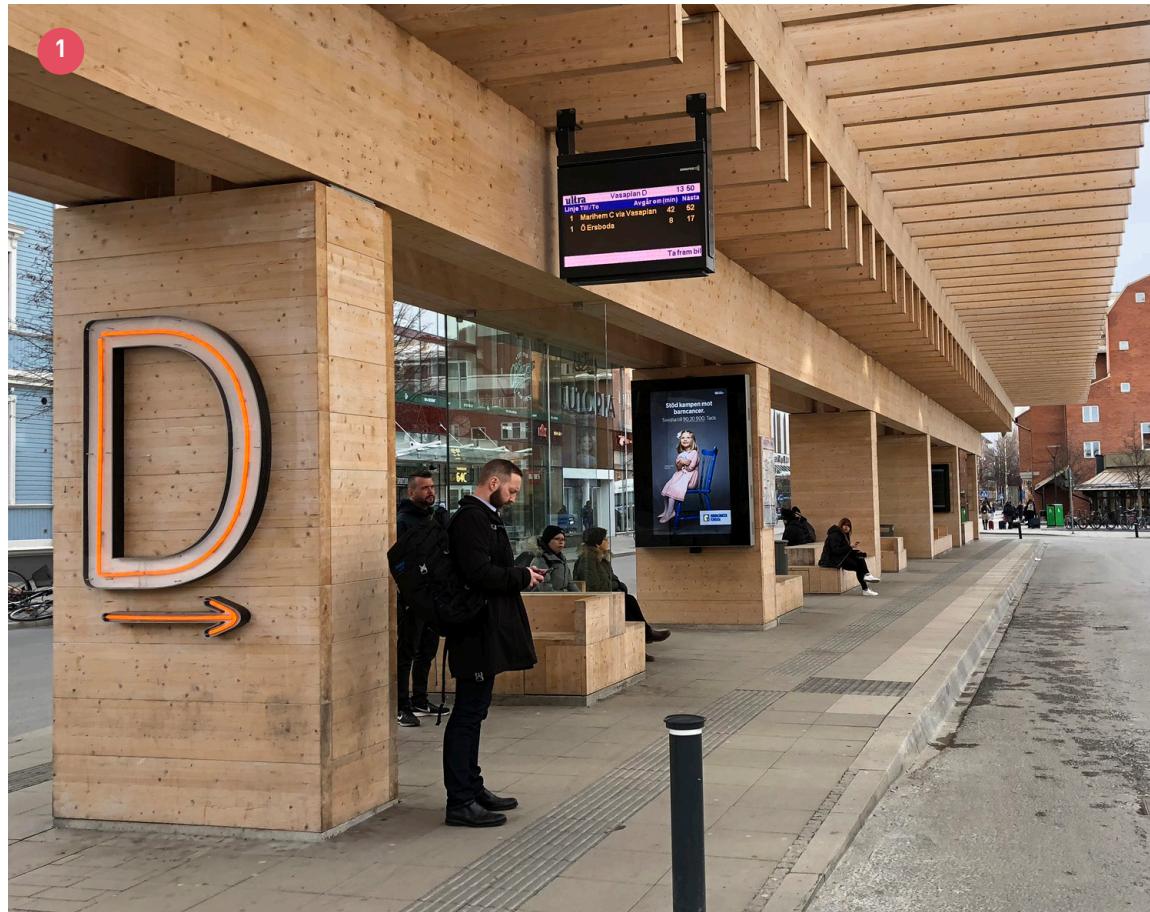
This involves attractive and comfortable seating options and good microclimate that protects from wind and sun/rain.

Greater mobility options for different user groups

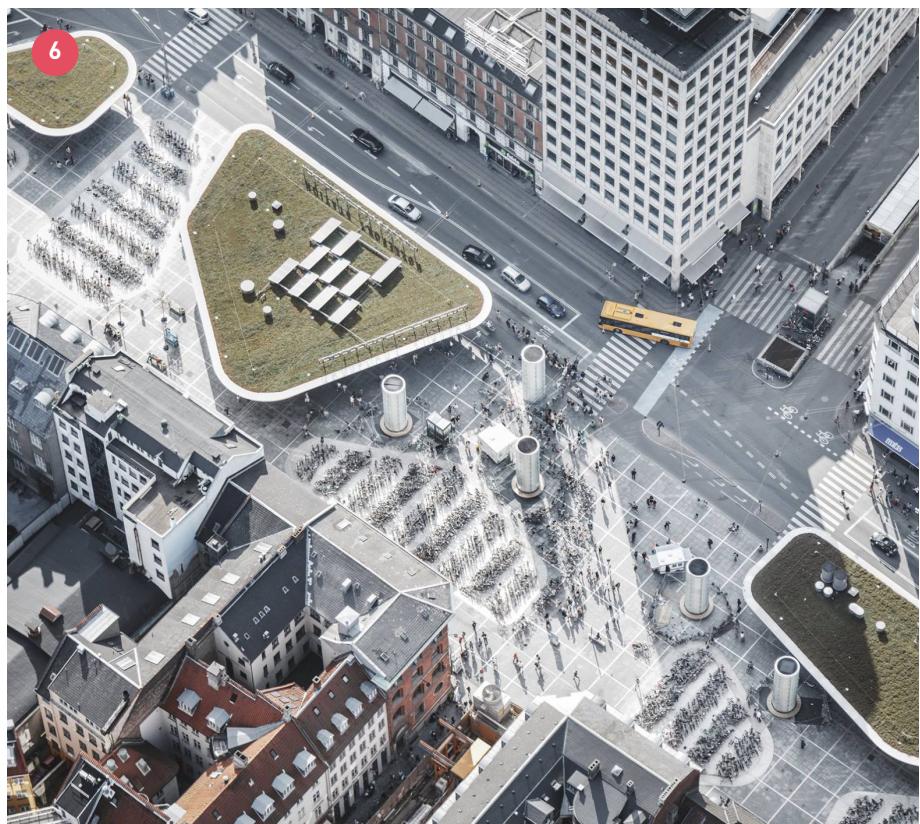
Develop a mobility plan especially for children and elderly who are not able to walk long distances, e.g. through micro mobility solutions, small navettes, etc. and continue to expand solutions to deal with the topography of Lausanne.

Promotion of sustainable forms of transport

Encourage partnerships with transport companies, interest organisations etc. to promote and encourage sustainable forms of mobility.



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- 1 A bus shelter providing many amenities to the people waiting.
- Umeå, Sweden
- 2 Punctual extreme traffic calming makes room for new amenities and public life.
- Strædet, Copenhagen, Denmark
- 3 A speed bump which does not only reduce speed but also adds quality to the street with its artistic expression.
- USA

- 4 Small local electric bus going through the city center.
- Odense, Denmark
- 5 Road diets helping to make room for new pavilions with public service and new functions that serve public life.
- Copenhagen, Denmark
- 6 The redesign of Nørreport station in Copenhagen has integrated the station into the pedestrian network.

2

More love to people walking and cycling

What

An enhanced the East - West network for pedestrians and cyclists

Reduce the car dominance and improve conditions for pedestrians and cyclists along east/west connections.

Where: Rue de Genève, Rue des Terreaux, Rue du Grand-Pont, Chemin de Mornex, Avenue du Théâtre, Place de L'Europe, Rue Centrale

Reduce the barrier effect of car traffic corridors by providing better pedestrian crossings

Pedestrian crossings should respect desire lines, provide generous time to cross the street - also for children and elderly, and on large roads provide a median where it's possible to safely pause.

Where: e.g. Place Saint-François, Place de la Gare, Place Chauderon, Rue des Terreaux, Ave Jean-Jacques-Mercier/Ave. Jules Gonin/Av. Benjamin-Constant.

Safe and interesting passages and underpasses

Continue to upgrade underpasses and passages with clear signage, art and lighting so they are easy and safe to use.

Less underpasses

Avoid underpasses where it is not needed but focus on creating crossings at street level that allows for better accessibility for all users.



A coherent system of paving

Develop a clear, consistent and intuitive system of paving that clearly indicates areas for walking, cycling and driving.

Communication of a clear network for pedestrians

Mark important side streets and use corners to lead people around on foot.

Network expansion for cyclists

Improve the most important missing links and create a special network for cyclists that take under consideration the steep topography.

A plan for the future of e-bikes and scooters

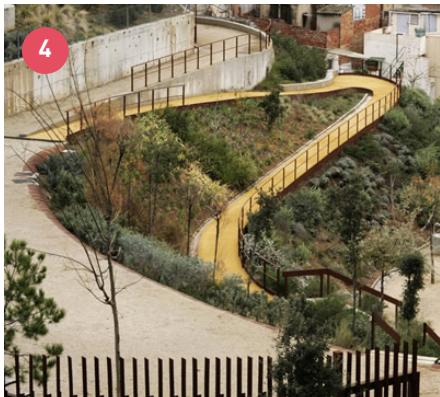
Consider how the future network for biking can go hand in hand with e-bikes and scooters, and regulations for parking.

A bike parking concept

Develop a concept for bike parking with better placed parking to not interfere with pedestrians. Improve amount of parking close to stations and important bus/tram stops.



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- 1 An underpass designed for better sense of safety providing a good overview with rounded corners.
- Umeå, Sweden
- 2 Bicycle lift helping cyclists to deal with hilly streets -Trondheim, Norway / <https://le-velo-urbain.com/cyclocable-brubakken-hilascenseur-velo/>
- 3 Cycle route called "the Wiggle" in San Fransisco designed to get cyclists around the worst hills. The route is well-marked on the pavement with green paint.
- 4 Qualitative "Slower ways" allowing to deal more comfortably with the topography - Jardin Rodrigo Caro, Barcelona, Spain
- 5 Pedestrian crossing enhancing sense of safety on a busy road - West Capitol Avenue, Sacramento
- 6 Innovative pedestrian crossing slowing down traffic and at the same time providing an identity to the place.- Nantes, France

3

Streets as public space

What

A public space plan with different street typologies

Make a plan for a clear street hierarchy related to the roles that the streets serve in the network and the functions along the street - e.g. main traffic corridors, local streets, residential streets, commercial streets, pedestrian streets etc.

Places to pause along busy pedestrian connections

Create more seating facilities or use arches to make places to stop and pause - both places to sit and stand - which will also help to give streets more character.

Where: Rue de Bourg, Rue du Petit-Chêne, Rue de la Paix

Activated edge zones

Open up the ground floors where possible and activate the edge zone with planting or small furniture - especially along the most used pedestrian connections.

Where: Escaliers du Grand-Pont, Rue de Genève



Generous and furnished curbzones

Make curbside extensions or remove parking on some parts of the street to make space for plants and furniture.
Where: e.g. Rue Genève, smaller local (residential) streets

Inclusive streets

Create a coherent street design strategy for the city center with clear standards and regulations (sidewalk width, crossings, ramps, etc.) to ensure streets are accessible for all, as a basic requirement.



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1 Curb extension offering safety and qualitative seating opportunities taking advantage of the existing tree.

- San Francisco, USA

2 A shared street with active ground floors including good seating. - Brighton, UK

3 Simple and game-changing curb extension. - NYC, USA

4 Street in Japan providing seatings by expanding the ground

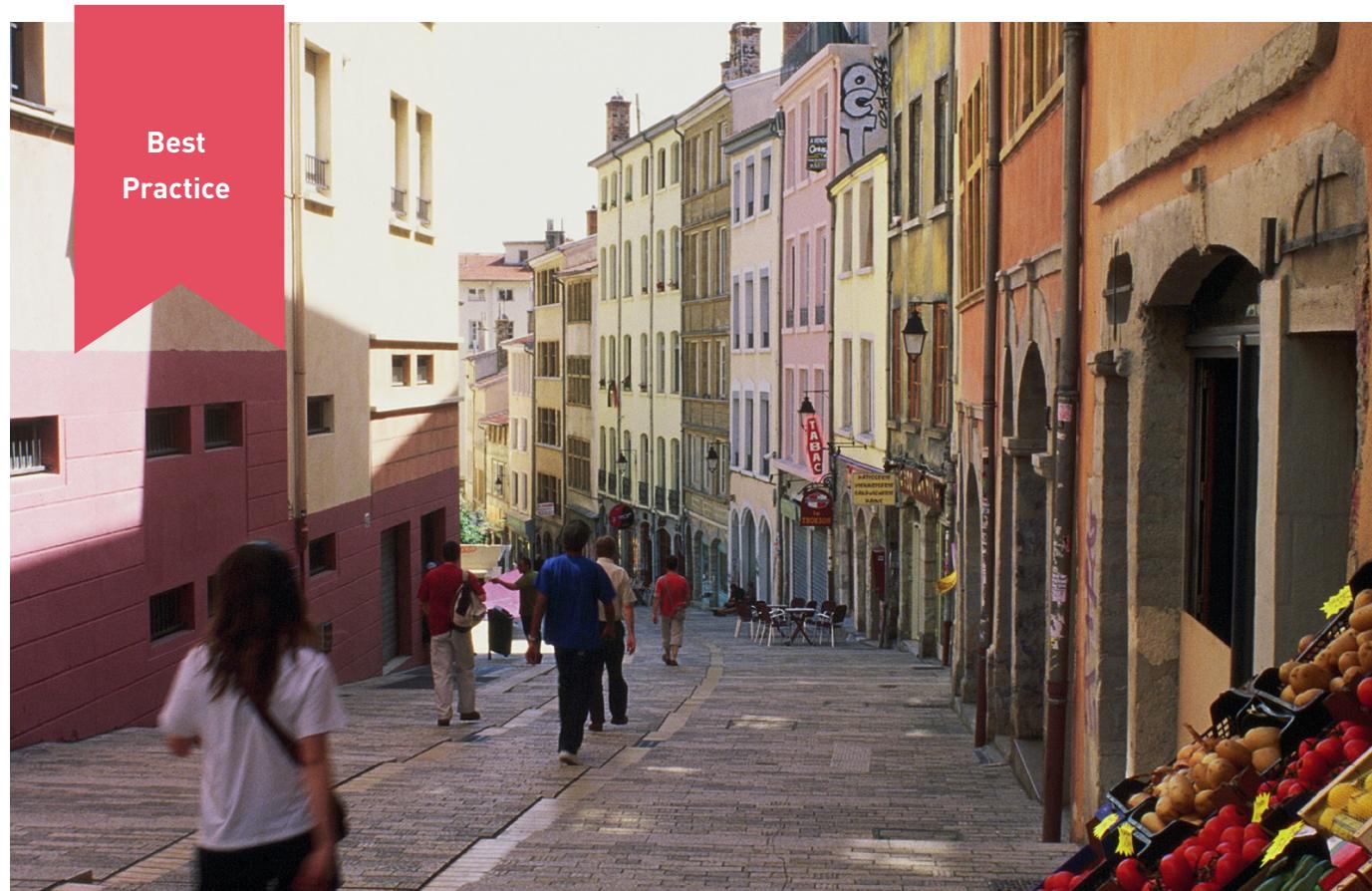
level programming on the street during a specific part of the day.

5 Smart curb extension with a wooden terrasse using former parking space which makes it possible to extend the restaurant outside.

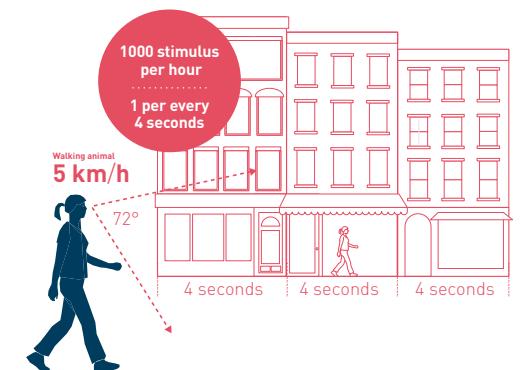
- Mar del Plata, Argentina

6 Generous sidewalks, separated bike lanes and slow car traffic make this street comfortable for all modes of mobility

- Vester Voldgade, Copenhagen, Denmark



A soft and walkable city, enjoyable at eye level



72



An attractive and varied walking environment stimulates the senses

People's senses are developed for walking speed. 70% of stimuli comes through eye sight and our brains need 1 stimuli per 4 seconds. Designing a lively and walkable city requires careful design of the ground floor that stimulate our senses in a positive way.

Scale and diversity of the built environment affects comfort and walkability. Building a good micro climate is essential in order to invite people to stay and linger. Buildings and edge zones need to address the human dimensions and create intimacy and comfort at eye level.

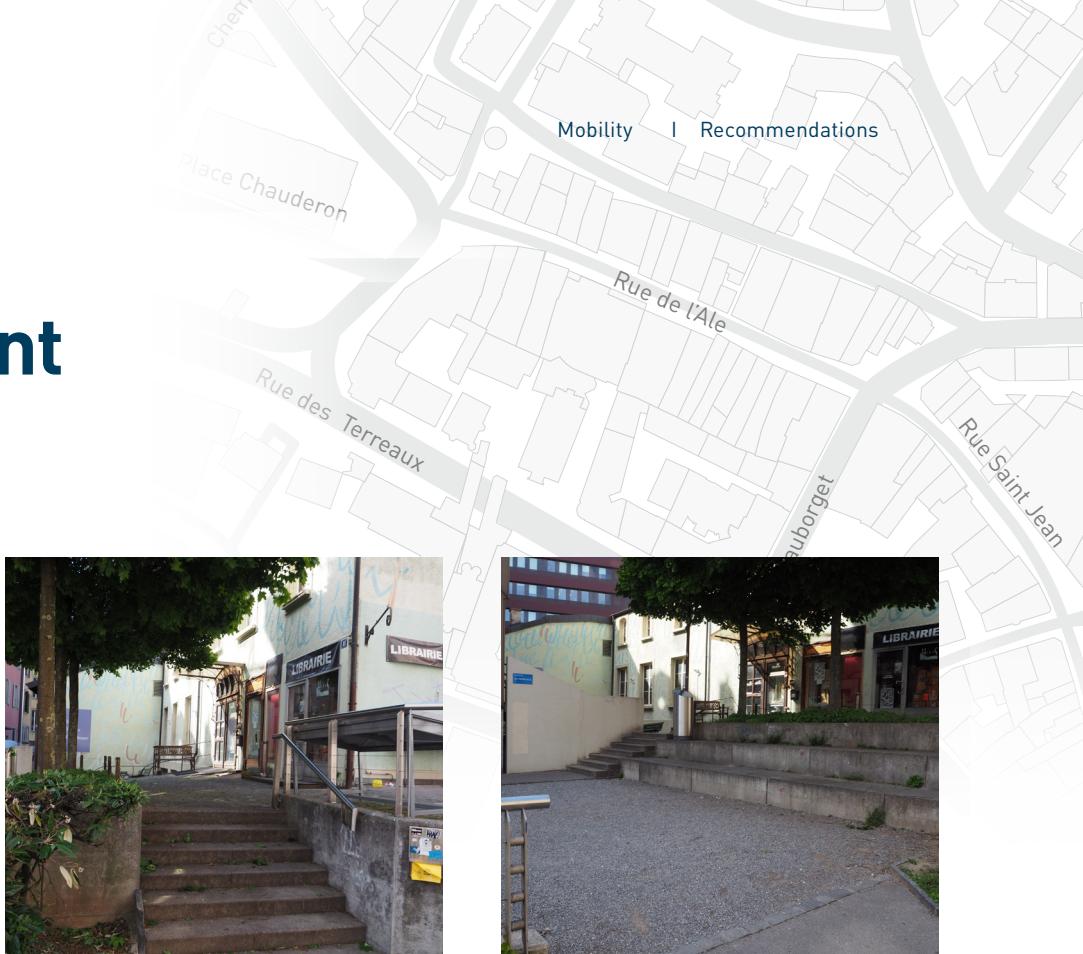


Placette de Terreaux - current situation

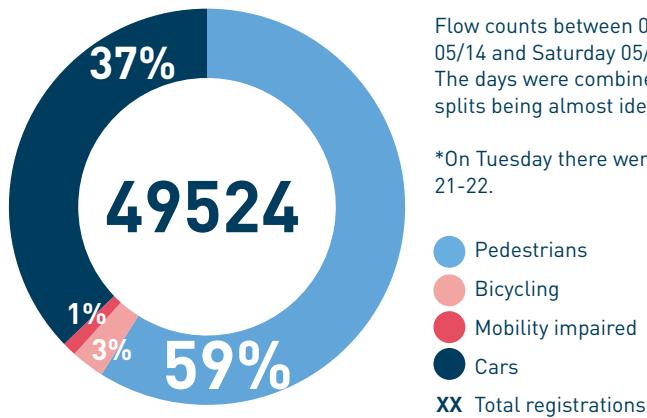
Today Placette de Terreaux is a neglected passage. It has a back-side feel that does not invite people to stop and stay. The placette is divided into smaller parts due to the many level changes and the stairs down to the underpass dominates and takes up a lot of space.

Placette de Terreaux holds a lot of potential due to its strategic location

along the very busy Rue de Terreaux where a lot of people pass by every day, but also as part of an alternative north/south connection between Flon and Rue de l'Âle. Moreover, it is located next to a cultural center and a theater school, potentially giving life to the space, but today the life inside these buildings is not visible at all.



Weekday & weekend combined



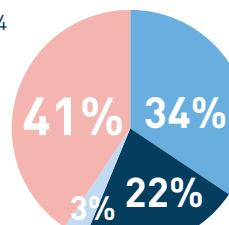
Flow counts between 08-21 at Tuesday 05/14 and Saturday 05/18 2019.
The days were combined due to the modal splits being almost identical on both days

*On Tuesday there were no counts between 21-22.

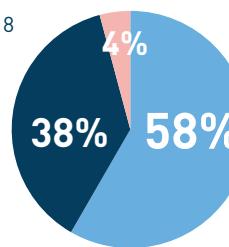


Pedestrians passing per hour at Sous Passage Terreaux/ Métropole and Rue de Terreaux/ Passage Âle/Terreaux.

Tuesday 05/14



Saturday 05/18



The number of people staying in Placette de Terreaux is very low, both on the Tuesday and Saturday. With an hourly average of **5/hour** on Tuesday and **7/hour** on Saturday.

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II

Character

In the future, Lausanne will benefit from displaying much more explicitly the many qualities, such as a rich history, and unique characteristics - not least the topography - and from making the public spaces as beautiful as the natural surroundings.

This also means strengthening the nature experiences in the city center.

4

Climate adaptation with green and blue experiences



What

A green plan for Lausanne

Develop a green plan for Lausanne that considers both high quality green/blue spaces, biodiversity, climate adaption and resiliency.

Green streetscapes

Make it more attractive and comfortable for pedestrians and cyclists in the city centre by adding more vegetation that can also provide shade in the summer.

More accessible green spaces

Strengthen accessibility to the green spaces within the city center and create better connections to the green spaces just outside the city center.

Presence of blue amenities in the city center

Plan for different water features in the city center building on the unique qualities of the location by Lake Leman and the history of the river Flon. Use collection of rain water to create more blue experiences. Where : e.g. Flon, Rue Centrale/Place Centrale

From decorative to usable green

Make manicured and decorative natural areas more accessible and usable. Ensure urban nature is not only serving decorative purposes, but can support climate

adaptation, strengthen biodiversity and foster local neighborhood life.

Where : e.g. Esplanade de la Cathédrale

Diversity of green - s-m-l-xl.

Provide a diverse range of green across scales, ranging from small pocket parks to green boulevards and large parks.

“3D green” – green roofs, vertical green

Use closed and unattractive facades to greenify the city center with vertical green. Create green roof tops that invite people to experience Lausanne from new angles, like Terrasse Jean-Monnet.

A softer look with more permeable surfaces.

Add permeable surfaces (e.g. cobblestones, turf, grass, reinforced grass, brick paving without mortar) to minimize the heat island effect and for better water management.

Micro-climate considerations in public space design

A pleasant micro-climate invites more people to stay in public space. Provide for more shelter from rain and sun through covers (membranes, roofs, etc.) and trees. Wind can provide a pleasant micro-climate with a cool breeze in the summer, but be careful to reduce the impact of wind in the winter.

Exemple of generous add-ons of green amenities of various scale



Add planters to make public spaces greener and sheltered from wind - Place de la Bourse, Lyon.



Add green to facades and other elements - Caroli mall, Malmö.



Create many new pocket parks with good facilities and furniture for outdoor work - Bryant Park, New York.



Green residential edge where people can contribute with unique identity and take ownership - Vauban, Freiburg.



Increase number of small and medium scale green elements as a complement to trees - Mint Plaza, San Francisco



Turn every left overs situation into an opportunity to grow the green network e.g. by turning a profit from the topography related left overs - Quartier des Pentes de la Croix-Rousse, Lyon, France



Permis de végétaliser - Paris, France

Gardening in the streets of Paris is allowed! Since 2015, the permission to revegetate is a new policy that allows everyone to become a player in the greening of Paris.

>2,550 planting permits allocated since 2015

"Vegetating the city helps to build green networks, ecological corridors. And this allows citizens to reclaim the public space and they are right!" Pénélope Komitès, deputy mayor of Paris, in charge of Green Spaces.



Good example of water features in Béziers, France



Copenhagen Cloudburst Management Plan

The Cloudburst Plan, aims to mitigate the impact of extreme rainfall while building climate adaptive infrastructure. The plan is expanding the sewer network and 300 surface projects for water retention and drainage.

This is a long-term plan, to be implemented over 20 years and to achieve the following: Storm-water overflow for roads and pipes that transport water towards lakes and the harbor; detention roads for storing water; detention areas to store very large volumes of water, e.g. parks that could turn into lakes during flood events; green roads to detain and hold back water in smaller side streets.

The climate adaptive spaces fulfill other functions than “just” water management., e.g. St. Annae Plads offers a playground, seating and game areas when not flooded.

Klimakvarter Østerbro:
This new climate district is Copenhagen's first adapted district. It is designed to withstand large amounts of rain, and instead of seeing rain as a problem, the plan uses rain as a resource. Landscaped channels direct rainwater to the harbor, while parks have artificial ponds where water can be led through vegetation that filters and stores it.

This project is based on intersection sidewalks 3-6m wide, bioswells and green buffers along sidewalks. Public Private Partnerships with the Copenhagen Utility Company work to climate-proof the city by means of a rainwater piping tunnel, and urban green spaces that can handle 30% of rainwater.





Best Practice Aarau's Stadtbach

In Aarau, design improvements of the main streets in the historic old town were implemented to enhance the attractivity of the car-free center. The reinterpretation of the Stadtbach by Stauffenegger + Stutz has been an integral part of public life since its opening in 2012.

A new water channel with wells shows that the Stadtbach once flowed through the streets in the old town, underlining the historic typology of the city. Special grates made of cast iron are placed on the water channel in selected locations, in order to allow for easier crossings, enabling high flexibility. Public seating elements are integrated into the design, creating possibilities for people to sit down and enjoy the water. The project also involves the renewal of the streets with barren stone paving and slab lining along the facades.

Now an audioguide is guiding people through different stations of the Stadtbach.



Kids playing with the water elements
Source: <https://www.st-st.ch/publicdesign/altstadt-aarau.html>

After many years, the Stadtbach is visible on the street surface again
Source: www.srf.ch, Keystone

5

Celebrate the topography

What

Viewpoints as unique Lausanne public spaces

Use places with spectacular view points - to the lake or within the city center - to create great public spaces with good seating, nice materials, communication about points of interest - and show the way to these important spaces.

Where: e.g. La Cité, Parc Montbenon, Av. Benjamin-Constant.

Bridges as public spaces

Create more space for people to stop and stay on the bridges so they can experience and enjoy the interesting level changes in the city.

Where: e.g. Rue du Grand-Pont, Pont Charles-Bessières

Stairs as a Lausanne character

Make the many stairs in Lausanne iconic places by letting them be objects of artistic expression and upgrade them as places to sit.

Where: Place du Château , Escaliers de Bel-Air, Escaliers Av. Sainte-Luce, Rue de la Grotte, Place Centrale

Topography signage

Create maps and signage that communicates the story of the Lausanne topography. Clear signage about short cuts, steep routes, elevators etc. for pedestrians and cyclists.



Buildings and streets as connected spaces

Reduce level changes between streets and buildings or make sure that there is a smooth transition. Activate set-backs where they disconnect buildings from the street.

Where: e.g. Rue Beau-Séjour

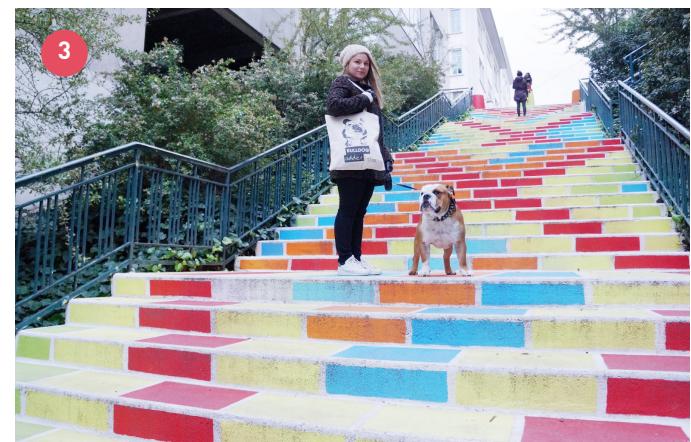
Less level changes and stairs where it's not needed

Reduce the complexity of level changes in some places in the city center, provide ramps where possible in order to improve accessibility for elderly and others with reduced mobility, and small children in prams - or add an elevator where most needed.

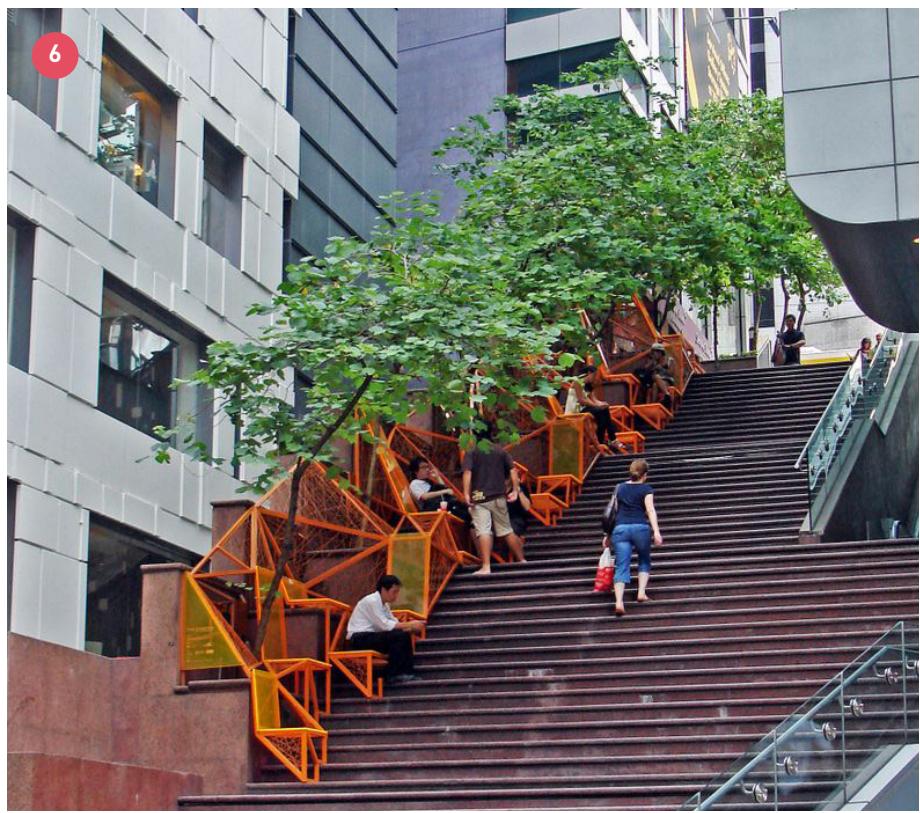
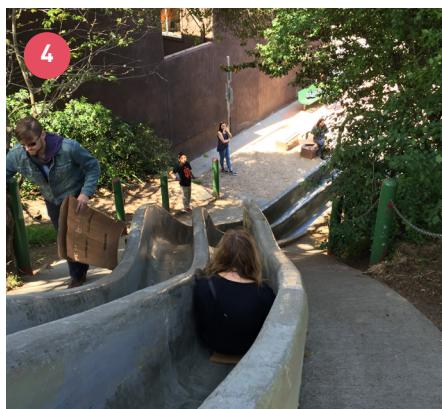
Where: e.g. Placette des Terreaux, around Bibliothèque de Chauderon

Special topography routes and promenades

Create special Lausanne promenades that benefit from and take in the landscape of the city



85



- 1 Steps on the Highline, designed as a comfortable place to sit on and enjoy the sun during lunchtime.
- NYC, USA
- 2 Dronning Louise Bridge : extended sidewalks on a bridge in Copenhagen working as a public space where people meet and spend time.
- 3 Street art improving the climbing experience, "selfie time".
- Lyon, France
- 4 Urban slides making important topography a lot more fun to deal with. - San Franscico, USA
- 5 Secure place to pause and interesting, dedicated signaling on the ground.
- Malgrat del Mar, Barcelona
- 6 Seating structure added to a public staircase. The combination of integrated lightings and trees creates a beautiful landmark providing shadows during the day as much as safety feeling during the night. - Hong Kong, China



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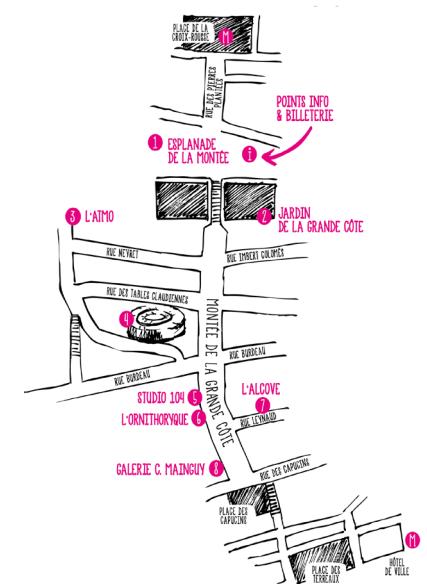


Le Jardin et L'Esplanade de la Grande-Côte

Quartier des Pentes de la Croix-Rousse, Lyon, France

The Esplanade de la Grande-Côte offers a superb view of the city of Lyon. Entirely paved with light-colored Montalieu limestone, the esplanade overlooks the gardens that lead to the iconic climb of the same name, the "Grande-Côte" climb. The gardens extend over an area of 6,000 m² and have a specific feature of a significant declivity. In summer, the forecourt becomes a place of meeting and festivities. A festival has even chosen to celebrate the topography of this neighborhood.

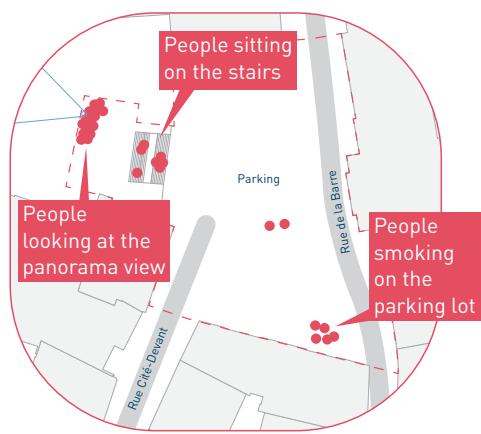
Festival **LA l'Ornithorynque**
GRANDE CÔTE
en SOLITAIRE



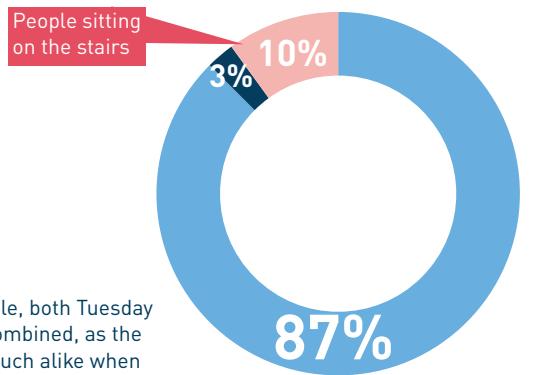


Place du Chateau - current situation

Today Place du Chateau is a square dominated by parking with a big asphalt surface. It has no obvious invitation for people to stay and the survey also shows that it is frequented by very few people. The square, however, has some obvious qualities as it is surrounded by beautiful historic buildings, and it is the first main square of the city center coming from the north. The main attraction is the view point platform.

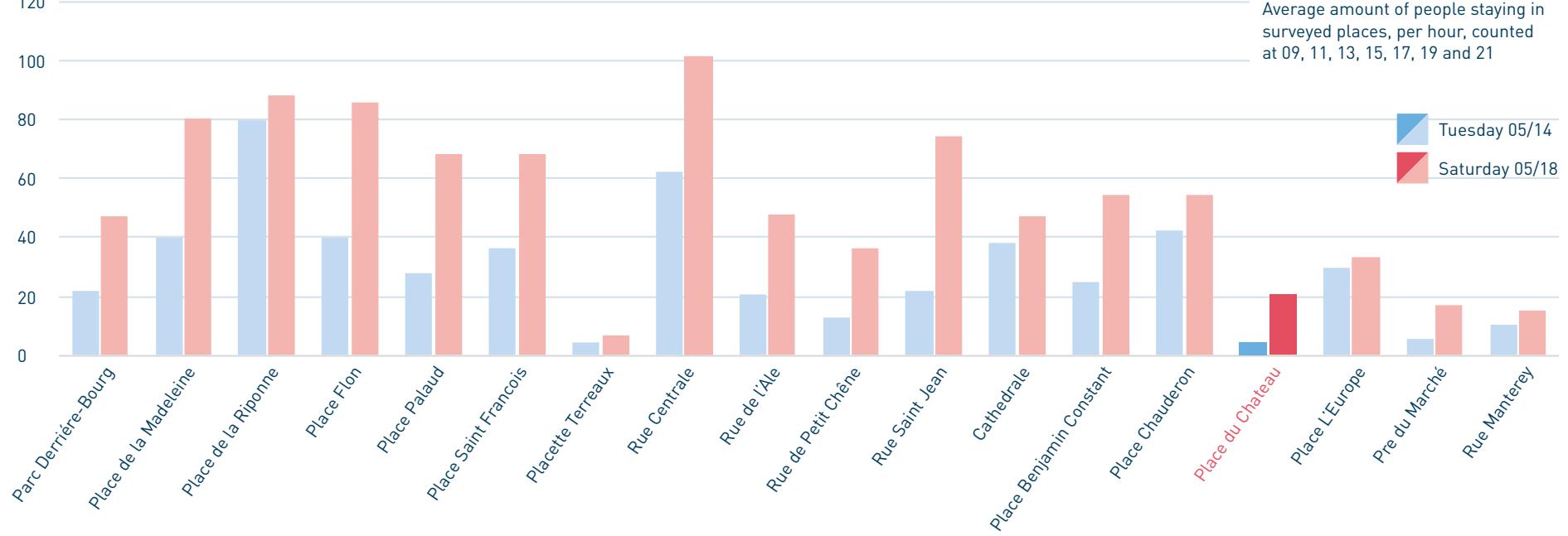


Place du Chateau sees a very low amount of visitors throughout the day, on both the weekend and weekday. But the location that seems to attract visitors are the stairs and the panorama view of the city.



- Standing
- Sitting - public
- Sitting - commercial
- Sitting - private
- Sitting - informal
- Lying down

Average amount of people staying in surveyed places, per hour, counted at 09, 11, 13, 15, 17, 19 and 21



6

A beautiful and strong Lausanne character

What

Celebrate historic and cultural heritage

Support existing iconic buildings by offering high quality public spaces and buildings that frame views to the building to make it more spectacular. Tell its story and make it more visible what is inside. The heritage to be celebrated also include major trees and historic parks.

Where: e.g. Esplanade de la Cathédrale, Place du Château, Palais de Rumine

A Lausanne design manual

Develop a strategy for overall street-scape elements like lighting, kiosks, pavement and street furniture to create a coherent identity for the city center. At the same time, ensure each square has its own unique character and is easily recognizable. Use high quality materials and ensure regular maintenance.

From back-side to front side

Upgrade alleys, areas around stairs etc., by cleaning up and reducing the presence of garbage containers. Develop an art strategy for these spaces.

Where: Placette des Terreaux, Av. Sainte-Luce, alleys between Flon and Rue de Genève.



Welcoming entrances at the periphery of the city center

Create public spaces with a Lausanne character that more clearly communicates the begining of the city center of Lausanne.

Design for experienced and perceived safety

Open up views by reducing shrubbery or obstacles, improve lighting, and ensure activities in nearby buildings. A constant flow of pedestrians and cyclists passing by does not only make a place more lively, but also increases the perceived safety through the increased presence of "eyes on the street".

More experiences in public space through art

Develop the quality of public spaces and the identity of the city by adding sculptures, paintings, etc. made by professional artists.



1



2



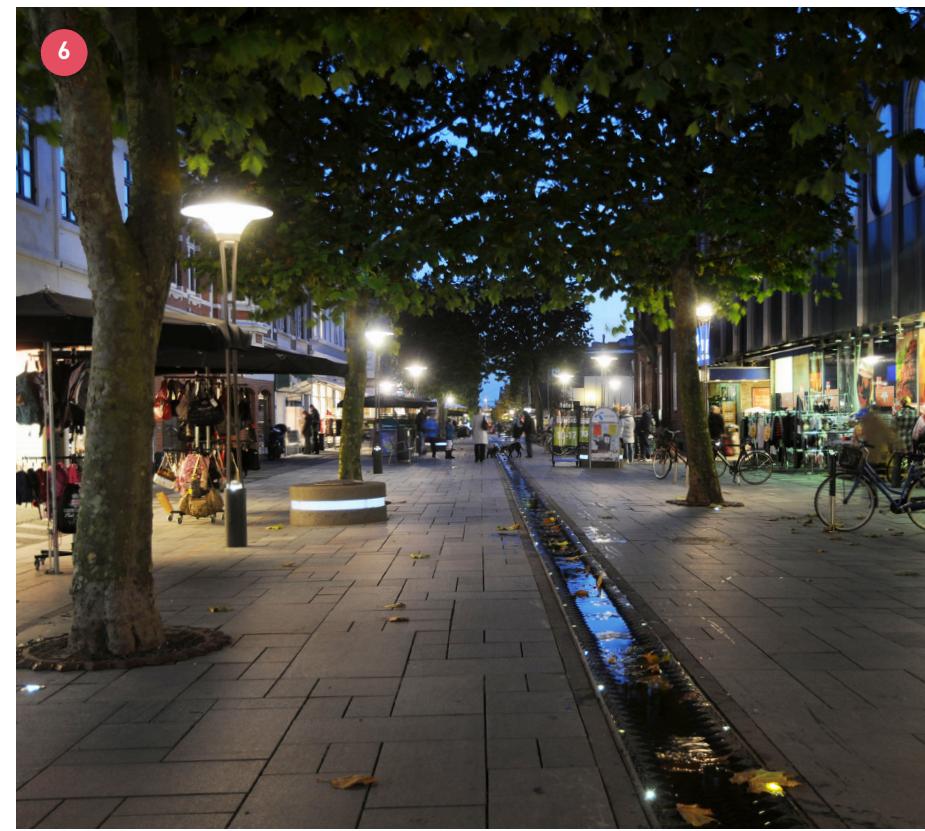
3



4



5



6

1 Celebrating the dome of Ribe, Denmark. The public space surrounding the church has been redesigned with respect for the cultural heritage - both in terms of the quality and character of the paving and emphasizing the architectural qualities.

2+3 Art installations making historical buildings communicate

more with the surrounding public space and emphasizing entrances. - London

4 Paving in front of the Unesco World Heritage Cathedral in Roskilde, Denmark.

5+6 Urban furniture designed to inform the pedestrians of the preexistence of a stream. - Tank Stream, Sydney



Good lightings in Alleys recently requalified in Melbourne.



Melbourne's Laneways revitalization

The lanes are hidden within the blocks of the Hoddle grid and provide a set of spaces which diversify and enrich the urban form of Melbourne whilst still retaining the dominant image of the formal grid structure.

The intimate scale of the lanes offer diverse opportunities for pedestrian access and activity.

The form and construction of some lanes offer an insight into the built form of the Victorian city and construction details no longer in use.

The laneway network assists traffic flow for vehicle and pedestrians and provide separated circulatory systems for service vehicles to access individual properties.

Key Lessons

- The attraction of a hidden and discoverable city pays off in tourism dollars as well as culture and identity for the city.
- Laneways are an important part of a strong street hierarchy.
- Were always part of the urban fabric of the city. Cities that do not have a history of laneways and service lanes with activities happening in them will have a harder time in implementing a 'laneway' strategy.
- A combination of city-led and market-led initiatives has been a successful combination. Government policy and strategy backs up and supports market-led initiatives. They are part of a bigger picture.



Melbourne Design Policies and Standards

In the 1990's, Melbourne's street furniture design policy was renewed. Carefully designed, it set the scene for the city's street-scape and urban spaces. Café chairs and tables were initially purchased or leased from the Town Hall to ensure a coherent design of the urban landscape. Moreover, planters, litter bins and other furnishing elements follow the design policy's palette of materials and colors. The street furniture has consequently become one of the city's signature visual identities.

In 2018, Melbourne City produced a new guideline, the Central Melbourne Design Guide, which would provide developers, consultants and planners with illustrations of acceptable and unacceptable design outcomes. These new rules provide all concerned with best-practice planning specifications.

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Key Lessons

- Has given the city's developments a renewed focus on 'the city at eye-level'.
- The graphic nature of the guide makes the policy very clear and accessible to a diverse audience.
- Has forced new developments to respond to the function and character of local contexts.
- Mandates that all new development provides direct and convenient pedestrian connections.
- When possible, the guideline has also required new developments to use multiple design practices to ensure competitive design processes.

Source: https://s3.ap-southeast-2.amazonaws.com/hdp.au.prod.app.com-participate.files/8415/2998/6449/The_Melbourne_Design_Guide.pdf





III

Space & Life

In the future, the city center of Lausanne will be much more than a commercial heart with shops and markets. It will be a place where the cultural life and the every day life of residents will also be in focus. Making use of the many resources existing in the city center, public spaces will serve to promote a varied public life.

7

Public spaces that invite for public life

What

Reconquer important public spaces for public life

Reduce parking to make attractive public spaces that invite for different types of public life

Where: Place Centrale and Place du Château

Attrative public spaces around entrances to buildings and cultural venues

Create welcoming public spaces where people enter buildings to bring life to where people go.

Where: e.g. business school in Rue de Midi

Increase the amount of usable public space

Use corners, and reduce level changes where possible to increase the amount of public spaces that can be used for different purposes.

More, better and diverse seating options

Increase the amount of seating facilities in the city center. Add seating of good quality in terms of comfortable materials and nice views and offer a greater variety in seating options (e.g. moveable seating and seating that allows for different group sizes).

Where: in parks, on stairs, along streets - both trafficed and pedestrianized like Rue du Bourg

Furniture that activates

Add and design furniture that invites for play and for people to interact in different ways.

A positive sensory environment in public space

Create a 'softer' look by adding more texture and color to paving and furniture in public space. Add plants and water features that bring positive sounds and can help to reduce noise from traffic.

Where: e.g. Place de la Riponne, Place du Tunnel, Place du Château

Human scale environment

Use plants and furniture to create smaller, more intimate spaces in the larger public spaces to bring down the scale. And place furniture in a way that supports a good microclimate (wind, sun, rain).

Where: e.g. Place de la Riponne, Place du Tunnel, Place du Château

Public spaces for quiet moments

Plan for small public spaces of high quality with non-commercial activities which don't invite for big crowds and where it's possible to find calm.



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- 1 Diverse seating options.
- Wien KulturQuartier, Austria
- 2 The waterfall in a pocket park in NYC filters the noise from the nearby street and creates intimacy.
- 3 Innovative urban furniture allowing people to interact in different ways.
- Moscow riverfront

- 4 Café Pavilion bringing life to a quiet public space. - USA
- 5 At Place de la République in Paris, pavilions along the square host different types of services e.g. it is possible to borrow games and toys to use at the square.
- 6 Movable seatings. - Place de la République, Paris



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Key Lessons

- Permanent amenities and temporary activities all year.
- Mixed activities for all user groups.
- Flexible and movable tables & chairs.

Manager: Bryant Park Corporation
Size: 3.9 hectares

Permanent amenities:
 Restaurants, Cafes, Public toilets, Movable chairs, Free wifi

Temporary activities:
 Film festivals, Music performances, Chess championship, Fashion shows, Outdoor library functions, Readings and lectures



Bryant Park, New York - A public space with a strong image giving identity to the whole area

Bryant Park has been upgraded as a vibrant and inviting public space. The park is now a catalyst for positive changes in all of the surrounding area.

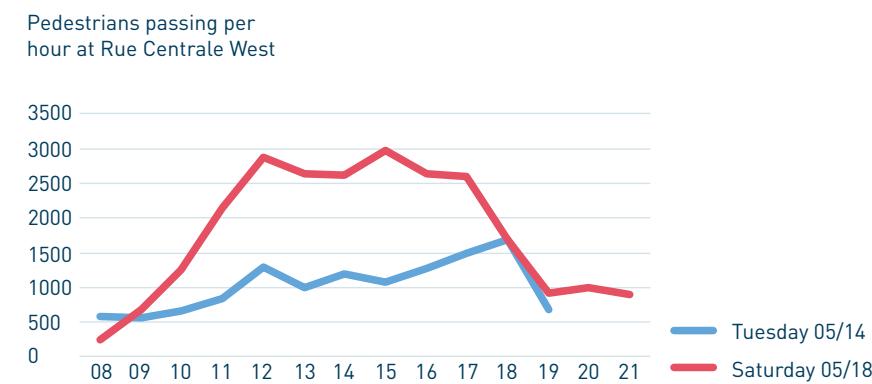
In the 70s, Bryant Park had a bad reputation of hosting drug dealing and crime. At the start of 1980s, the transformation of the park was initiated, financed by public and private funds. Over the next 10 years, the park was opened up to the street and new functions and activities were brought into the park. With its 2,000 movable tables and chairs, today the park is used by a broad group of visitors who organize themselves in different social constellations. The park is managed by a non-profit private organisation and has more than 4.2 million visitors a year, and more than 1,000 free events a year.

The pavilions in the park spill out activities like cafés and the outdoor library with movable book stalls and reading events. The winter programme and big skating rink help to activate the park all year round. Overall, the process of transforming the park into an attractive and inclusive destination has proved to greatly increase the attractiveness of the neighbourhood and the property values of nearby buildings.



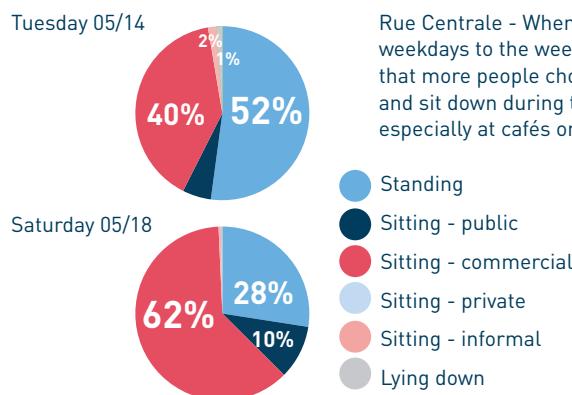
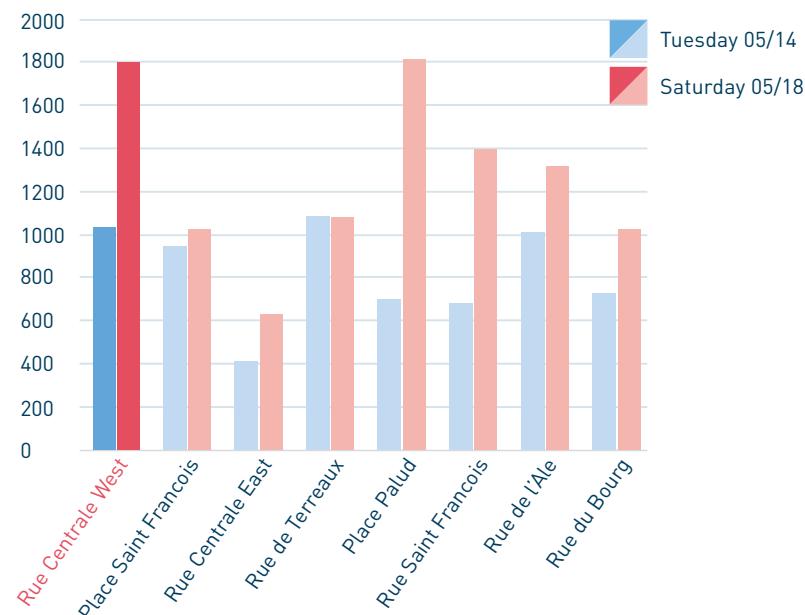
Place Centrale - current situation

Place Centrale is the most centrally located square in the city center, but it is today dominated by car and motorcycle parking. On one side it is surrounded by buildings with some ground floor activity, and most of the life taking place on the square therefore happens at the edge. On the other side it is framed by the beautiful arches of Grand Pont.



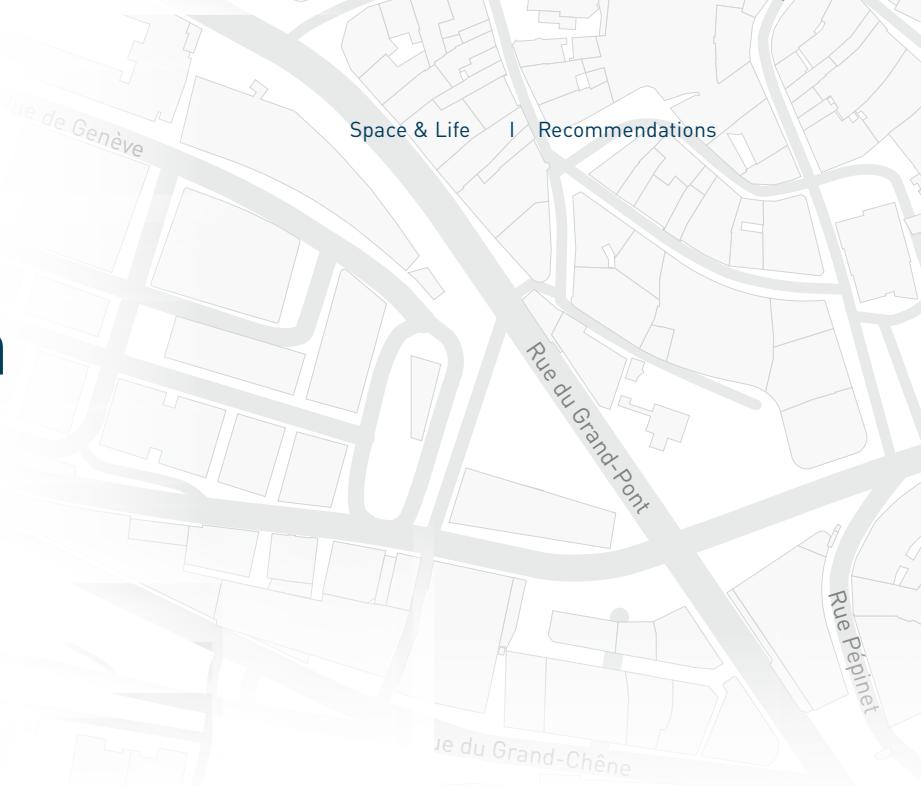
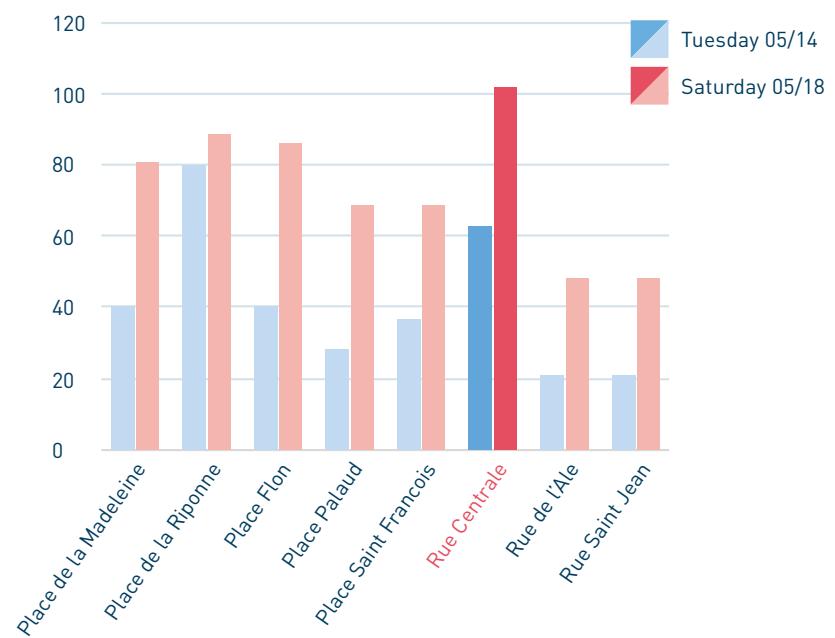
As a public space, Place Centrale, holds a lot of potential and could easily benefit from the many people passing by each day on Rue Centrale. Numbers also show that Rue Centrale, including Place Pepinet, has a lot of staying activity, unlike some of the other streets surveyed in the city center (see graphs on page 'Place du Chateau - current situation').

Average amount of pedestrians/hour in different locations across Lausanne, with Rue Centrale West being one of the busier streets, both on weekdays and weekends



Rue Centrale - When comparing the weekdays to the weekend, it is clear that more people choose to stay and sit down during the weekends, especially at cafés or restaurants.

Average amount of people staying in some of the surveyed places, per hour, counted at 09, 11, 13, 15, 17, 19 and 21



8

A good everyday life for everyone



What

More local public spaces

Develop high quality public spaces with a local character that serve the needs of residents living close by, such as Placette Pré-du-Marché.

Residential streets as play streets

Make room for play and create social meeting places along residential streets.
Where: e.g. Av. Sainte-Luce

High quality public spaces around everyday destinations

Create good public spaces where people are, such as cultural venues, libraries, sports facilities, super markets, etc.
Where: e.g. sports center, Rue de la Tour

More physical activity in the city center

Create better options and invitations for physical recreation and play to happen in public space.
Where: e.g. steps as places for work-out

A welcoming city center for specific groups

Develop a strategy for how to invite and integrate groups that need special attention into the public spaces, such as children, senior citizens and marginalised groups.

Vibrant public spaces all year

Program and design public spaces that invite for different activities to happen - also in winter.



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1 Winter Festival in Östersund, Sweden.

2 Montréal swings inviting for play.

3 Street offering amenities for every ages in a flex zone opened to cars.
- Kartoffelrækkerne, Copenhagen, Denmark

4 An inviting every day space in front of a supermarket.
- Staffanstorp, Sweden



5 Strategic collaboration between planning and social department of providing safe facilities and spaces for marginalised groups in the public realm.
- Odense, Denmark

6 Activity space centrally located and with room for both being active or watching the activities take place.
- Fredericia, Denmark.



9

The city center as an arena for activity and engagement

What

Better connection between inside and outside

Make life inside buildings more visible by activating the facades or edge zones.
Where: e.g. Palais de Rumine, Place de la Riponne

More visible culture in the city center

Allow for cultural institutions to make use of surrounding public space for activities, and plan for more active ground floors with cultural functions.
Where: e.g. Espace Culturel des Terreaux, Théâtre Boulimie

Strengthen a 'yes'-culture.

Emphasize user-generated urbanism through institutional frameworks that empower communities and invite for local initiatives.

Multiuse and sharing of resources

To increase the amount of public space for public life, open up spaces like school yards and make it possible to use them outside school hours.

Where: e.g. Av. Sainte-Luce

Develop partnerships with private actors to increase public space in the city center

Increase variation of open spaces in the city center and invite for other uses through partnerships with private actors. Make it clear what spaces are publicly accessible, and make private functions and buildings contribute to the quality of public space in the city centre, e.g. by focusing on entrance areas or creating roof tops that are open to the public.

Make public spaces stages for events

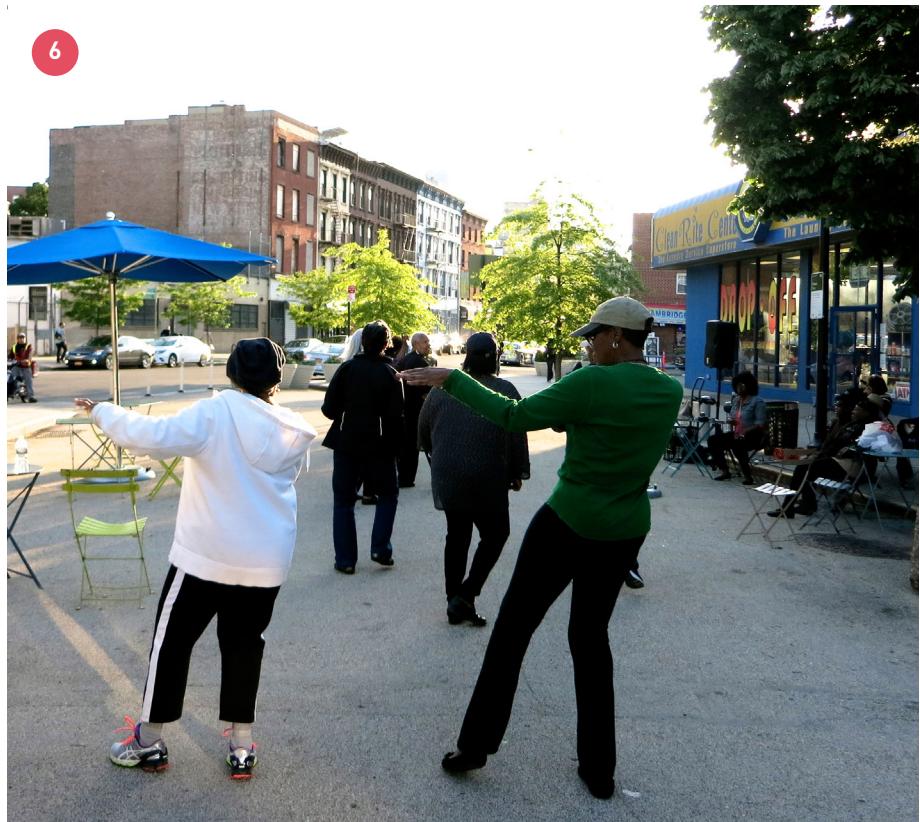
Develop agora squares that can easily accommodate cultural events, for example 'Street stages de la fête de la musique' and facilitate the use of the squares as natural terraces.

Pavillion programme

Expand the "Edicule" Policy of 28 kiosks already happening in Lausanne and develop more programmed pavillions in strategic locations that can help activate public spaces with various programs (kiosk, exhibition etc.) and provide more public amenities in public spaces (e.g. public toilets, water etc.)



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- 1 Open multipurpose schoolyard above parking.
- Israel Plads, Copenhagen, Denmark
- 2 San Francisco signage inviting pedestrians to access privately owned rooftop open to public.
- USA
- 3 Pavilion allowing culture events to happen in the middle of the city and to surprise pedestrians on their way.

- 4 Flex parking in Copenhagen, Denmark, switching from bicycle to cars depending the hours of the day.
- 5 Night Lighting.
- Montreal, Canada
- 6 NYC Plaza Program where community groups can apply for an upgrade of a local plaza by showing local commitment and ownership.

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