BRUGGE

STADS-
FIETSROUTE

STADSFIETSROUTE

FR30

BRUGGE

City of Bruges

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2020 CiViTAS Cleaner and better transport in cities HANDSHAKE

THE CIVITAS INITIATIVE IS CO-FINANCED BY THE EUROPEAN UNION

Handshake project

Bruges is actively and ambitiously working to become one of Europe's future cycling capitals under the CIVITAS Handshake project. CIVITAS Handshake is on a mission to make cities more cycling friendly by bringing together thirteen cities from across Europe to share and inspire excellence. Three world-renowned cycling capitals – Amsterdam (NL), Copenhagen (DK), and Munich (DE) – are sharing their expertise and proven solutions with ten future cycling capitals. As an aspiring future cycling capital, Bruges is working closely with cycling experts from the City of Amsterdam. This project is under the CIVITAS Initiative and is funded by the European Union's Horizon 2020 research and innovation programme. Find out more at handshakecycling.eu.

This brochure represents a summary of the technical study produced for the project, available in full at Brugge.be

Last year we celebrated the 50th anniversary of the first victory of Eddy Merckx in the Tour de France. Those were the days... But they were also the days of a mobility policy that was very car-oriented. Our medieval city was flooded by motorized vehicles. Streets were turned into traffic sewers. The historical squares were transformed into ordinary parking lots. The integrity of the whole city was at stake. Fifty years ago, some citizens founded the Foundation Marcus Gerards to make a plea for a new urban development policy. It was the beginning of a new urban renaissance, one could say.

In 1972, the city council of Bruges gave the green light to a new policy document, the so-called 'Structuurplan'. This document represented the start of a new mobility policy, one that could be described as a strategy to develop city-friendly mobility. This approach was based on the idea that it is not the city that should adapt to modern traffic flows, but rather modern traffic should adapt to the city. A city that is today celebrated as Unesco world heritage.

The policy choices made in the 70's and afterwards transformed Bruges, welcoming cyclists back to the city streets. There is however, more work to be done. Today, cycling infrastructure in Bruges is overcapacity and, at times, unsafe. These safety concerns are felt by bicycle riders crossing the R30 ring road, especially at the historic city gates.

Thanks to the European Handshake project, the City of Bruges has had the opportunity to rethink its cycling network. Together with a project team composed of West 8, Copenhagenize Design Co., and Vectris, and with the support of several European experts in cycling mobility, we have been working on the strategy for the *Stadsfietsroute* project.

The vision resulting from this study is presented in the following pages. From the initial idea of redesigning the R30 ring road, a strategic long term vision to structure the whole cycling network around Bruges' city-centre has been developed. Most of all, the City of Bruges aims to use the humble bicycle as a tool to reshape the urban quality of some streets by following the motto "Less Speed, More City".

Dirk De fauw
Mayor of Bruges

LESS SPEED MORE CITY

"The street used to be the heart of a community, a meeting place where people could rely on each other. Instead of a binding element, the street nowadays has become a barrier for all human relations. The car is attributed to the fact that people are living alongside each other. Nevertheless, the urban culture still has the specific role of facilitating human encounters as much as possible. [...] We passionately believe in the meaning of a living city heart, the wonderful synergy of shops, public buildings, offices, museums, restaurants, etc. [...] It is a crazy notion that a street would come to life through intense motorized traffic, since it is in fact a deterioration of our quality of living."

Frank Van Acker, Mayor of Bruges, 1978

INTRODUCTION

/// A need for a new generation of cycling infrastructure

Since first setting out to actively develop a connected network of cycling infrastructure in 1992, Bruges has seen a steady increase in bicycling, now accounting for an impressive 42% of trips. But while the city-centre is appreciated as a refuge for both pedestrians and cyclists, it is encircled by the R30, a heavily car centric ring road frequently cited by residents as one of the leading deterrents to cycling. Furthermore, the cycling infrastructure that has served Bruges is now recognized as being too narrow to safely and comfortably accommodate the city's increasing bicycle traffic including e-bikes, cargo bikes and speed-pedelecs.

It is time to update Bruges' cycling network to make travelling by bicycle more direct, intuitive, and comfortable for residents of all ages and abilities. These aspirations apply not only to improving bicycle lanes, but also making intersections safer and amenities more accessible. The bicycle truly is a city-friendly mode of transportation, reflecting the rich historical and natural characteristics of Bruges. By developing this next generation of cycling infrastructure, Bruges will become a future cycling capital.

/// From the FR30 cycling route to "Ceci n'est pas un Ring"

After identifying the need to improve cycling safety conditions along Bruges' R30 ring road, the City commissioned a project team to develop a corridor strategy according to Flemish cycle highway standards. Consisting of the landscape architecture firm West 8 (NL), traffic engineers Vectris (BE), and the cycling consultancy Copenhagenize Design Co. (DK), the project team questioned the focus on the ring road corridor approach, arguing that greater focus should be placed on the overall connectivity and integration of the city-wide cycling network. From here, the project transitioned away from a focus on the FietsRing 30 (FR30) to a more holistic *Stadsfietsroute*.

Work on the *Stadsfietsroute* strategy kicked-off in August of 2019 and by early 2020 a series of key stakeholder events were carried out to collect input from a wide range of actors including European experts, local authorities, cycling advocacy groups, as well as local residents. The following brochure presents the overall vision for Bruges' next generation cycling network, reflecting the expertise of the project team coupled with stakeholder insights.

A CYCLING NETWORK THAT FITS BRUGES

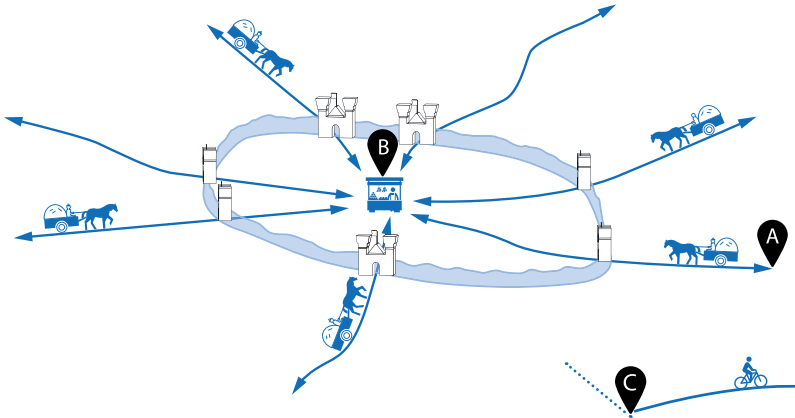
/// The cycle network is a part of a rich urban and natural system

From bustling urban life to tranquil greenery, Bruges is made up of a dynamic mix of atmospheres. Natural and manmade elements such as the green Vesten, the ring canal, and the historic city gates give shape to Bruges, influencing how residents perceive and orient themselves as they move through the city.

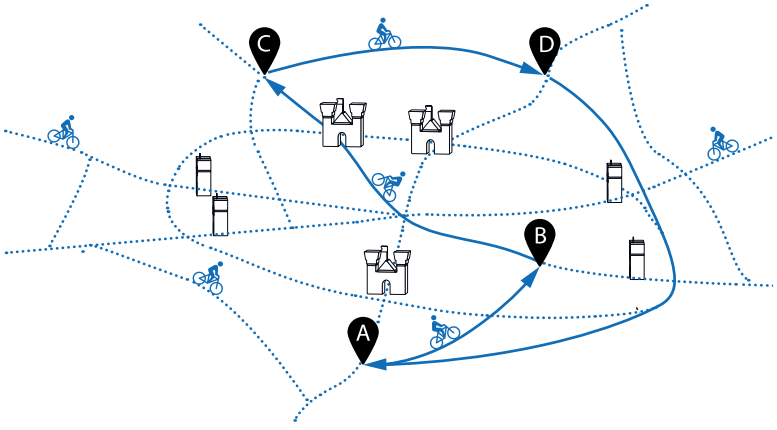
The *Stadsfietsroute* strategy takes these atmospheres and elements into account, leveraging them to build a more intuitive and connected cycling network. By integrating on-street and green corridors, the proposed cycling network goes further than simply respecting existing elements. Rather, new opportunities to open up the city will be developed, connecting previously disconnected spaces through bicycle and pedestrian friendly infrastructure.

The result will be a win-win situation for bicycle riders and the city at large. Improving the conditions of cycling infrastructure will accommodate a greater number of everyday cycling trips, reducing air and noise pollution associated with single occupancy vehicles. Cycling infrastructure will calm car traffic in certain areas, creating nicer spaces around many of the city's landmarks. A more intuitive and comfortable network will accommodate residents of all ages to take to the bicycle, encouraging utilitarian and casual bicycle riders alike while encouraging more city-friendly urban life.

/ Medieval



/ Today

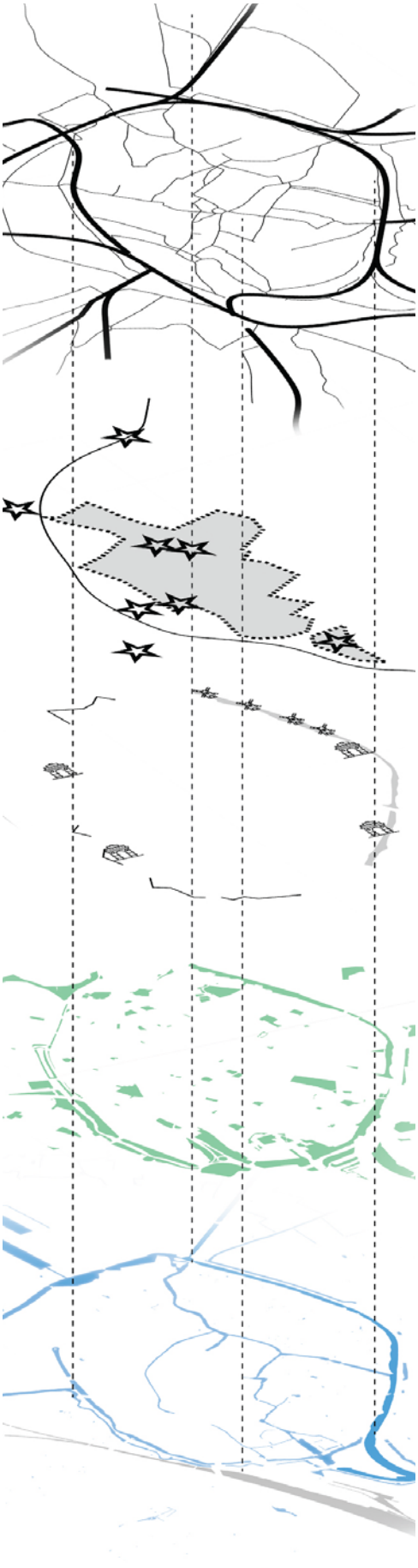


/ Cultural elements

/ Historical elements

/ Green areas

/ Water system



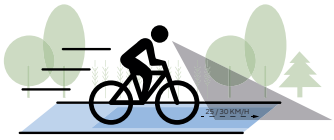
CYCLING IS MORE THAN MOBILITY

/// From the world of flows to the world of places

The bicycle has a timeless ability to move people. It is perfectly suited to the urban scale, able to reshape cities, activate street life, and offer freedom and empowerment. By choosing to travel by bicycle, residents improve the quality of life both for themselves and for their city.

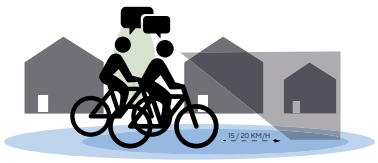
On an individual level, choosing to cycle carries many direct and indirect health benefits. And on a wider level, cycling reduces air and noise pollution, eases traffic congestion, and contributes to more dynamic streetscapes and healthy local economies. To tap into these potential benefits a holistic approach to cycling infrastructure design must be taken, appreciating that cycling belongs to both a *world of flows* and a *world of places*.

WORLD OF FLOWS — **WORLD OF PLACES**



Efficient Cycling

Cycling must be accommodated as a reliable means of transport, allowing residents to efficiently travel both short and long distances. With direct and dedicated infrastructure, cycling becomes a reliable and efficient modal choice, surpassing the capacity and quickness of car traffic in urban settings.



Social Cycling

Well-designed cycling infrastructure allows residents of all ages and abilities to feel safe and relax while cycling. Seeing bicycle riders travelling together in groups, chatting as they go, makes the city feel more human while indicating that cycling conditions are safe. For everyday people to reach this confidence while cycling, infrastructure should be either separated from the car traffic or mixed with a very low volume of cars.

Convenient Cycling

When travelling by bicycle, city life is scaled to you. Making quick stops to run errands, waving at friends and neighbours, enjoying the historic and natural settings, and even window shopping are all natural when cycling at a comfortable pace.

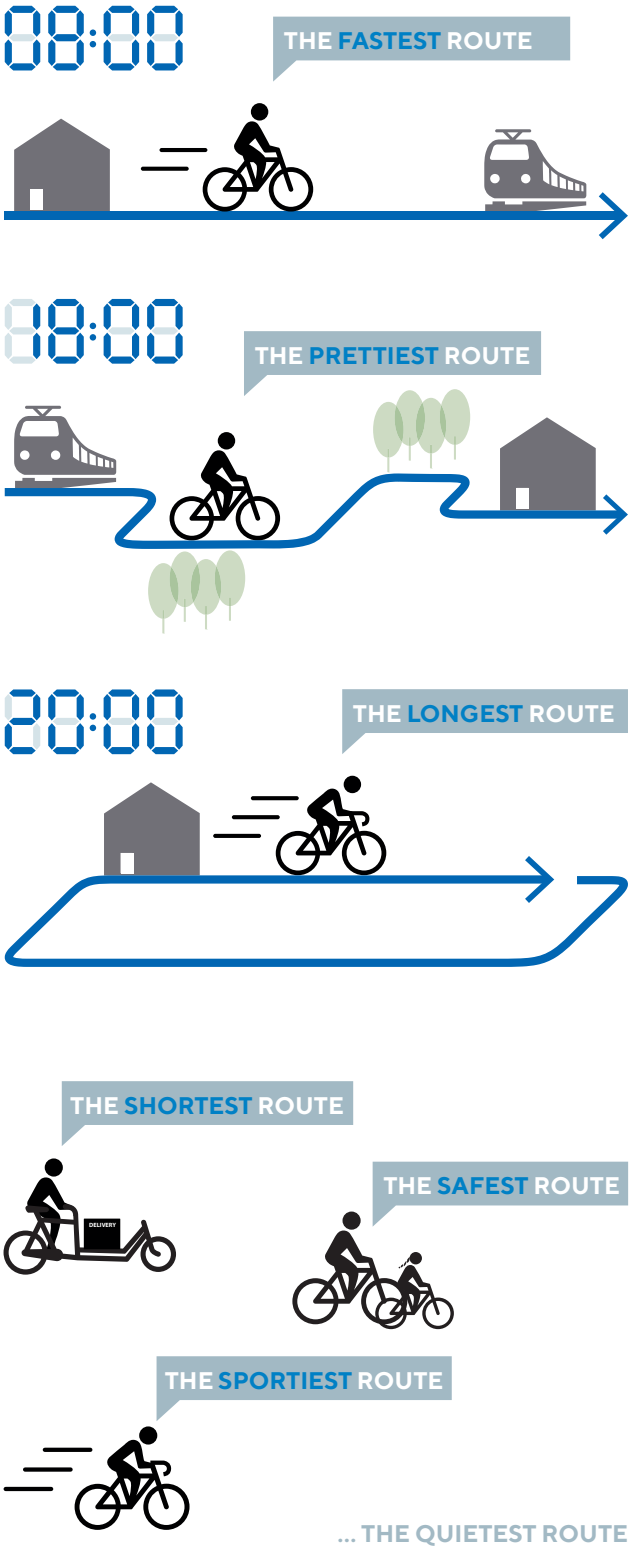
A NETWORK FOR ALL RIDERS

Best practice cycling infrastructure is flexible and overlapping, responding to a range of contexts while still accommodating all users. From daily long-distance commuters to groups of school children, potential users have a wide range of needs, speeds, and behaviour. Infrastructure that is intuitive is able to accommodate all, guiding bicycle riders while ensuring comfort for other road users.

///A route for every occasion

Depending on the situation, a person may choose any number of routes to get to the same destination. For instance, for the morning commute, bicycle riders are very likely to choose the quickest and most direct way to work or school. Whereas in the afternoon, the same rider may choose to take a scenic detour through a park or along a canal. And if looking for exercise, the priority will likely lie in a longer route with the fewest possible interruptions (ie other traffic or intersections).

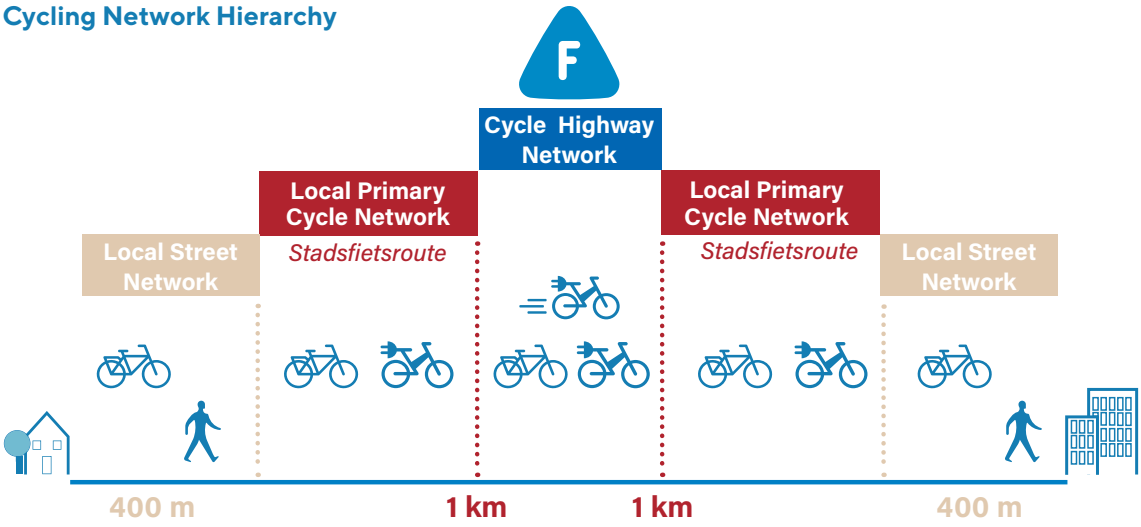
In this way, a city aspiring to become truly bicycle friendly must acknowledge the ideal route could be the safest, the prettiest, the quietest, or simply the quickest, all depending on the situation.



A DESIGN FOR ALL CONTEXTS

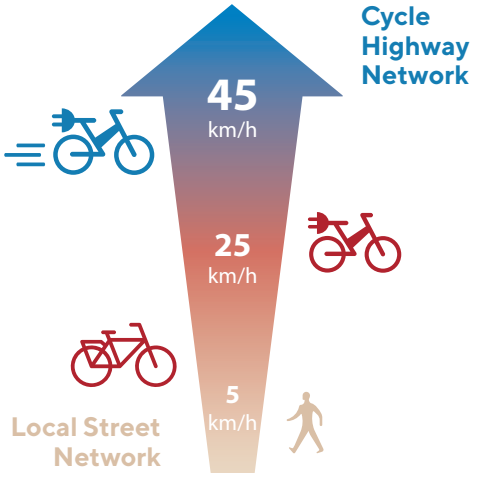
Cycling infrastructure should follow the natural hierarchy of the urban street network. From the bicycle riders' perspective, it is important to be able to rely on comfortable cycling infrastructure, no matter the age, ability, or mood. Meanwhile, from a design perspective, these needs can be met through the implementation of three hierarchical typologies of bicycle infrastructure, each determined based on the surrounding context.

Cycling Network Hierarchy



Along quiet residential streets, bustling high streets, and regional corridors, cycling infrastructure must ensure a safe and comfortable journey. In this way, a typical commuter can start their trip along a traffic calmed residential street, before connecting to a high street with protected and dedicated bicycle lanes. For those travelling longer distances, connecting to one of many regional cycle highway routes within one kilometre will provide safer and more seamless travel. This stepped hierarchy will also accommodate riders as they approach their destination.

In Bruges' medieval city-centre, the existing cycling network follows the historical and natural 'green' and 'blue' spaces, allowing bicycle riders to enjoy pleasant environments. The primary cycling network connects these spaces to the surrounding residential districts, putting unnecessary pressure on the historic Vesten. By restructuring and clarifying the cycling network, congestion along the Vesten can be alleviated, making it more so a place for recreation rather than commuting.



Local Street Network

- Automobile speed limit: 20 or 30 km/h
- Cycling infrastructure type: Traffic calming
- Contra-flow cycle lane on one-way streets at 30 km/h or slower
- Possibility to create a cycle street or a shared space
- Safe and comfortable intersections for cyclists

Local Primary Cycling Network

- Automobile speed limit: 50 km/h
- Cycling infrastructure type: Protected cycle track or buffered cycle lane
- Cyle infrastructure minimum width: 2.5 metres (one way)
- Safe and comfortable intersections for cyclists
- Pay attention to the implementation of parking and bus stops

- Automobile speed limit: 30 km/h
- Automobile traffic flow: Less than 2,000/day
- Bicycle street (Fietsstraa) with smooth surface in the UNESCO area
- Safe and comfortable intersections for cyclists

Cycle Superhighway Network

- Cycling infrastructure type: Mostly separated from automobile traffic
- Direct and comfortable routes
- Amenities for cyclists provided
- Safe and comfortable intersections for cyclists

"CECI N'EST PAS UN RING"

A direct, efficient, and convenient cycling network needs to understand where people are going. In order to do so, an origin-destination analysis was conducted. In this case, the study area stretched 10 kilometres out from Bruges' city-centre, a distance that acknowledges a typical range of conventional and electrically assisted bicycles. The results project the potential for a readjusted modal share split, including a larger proportion of trips by bicycle accommodated by quality infrastructure.

/ Improving north-south routes

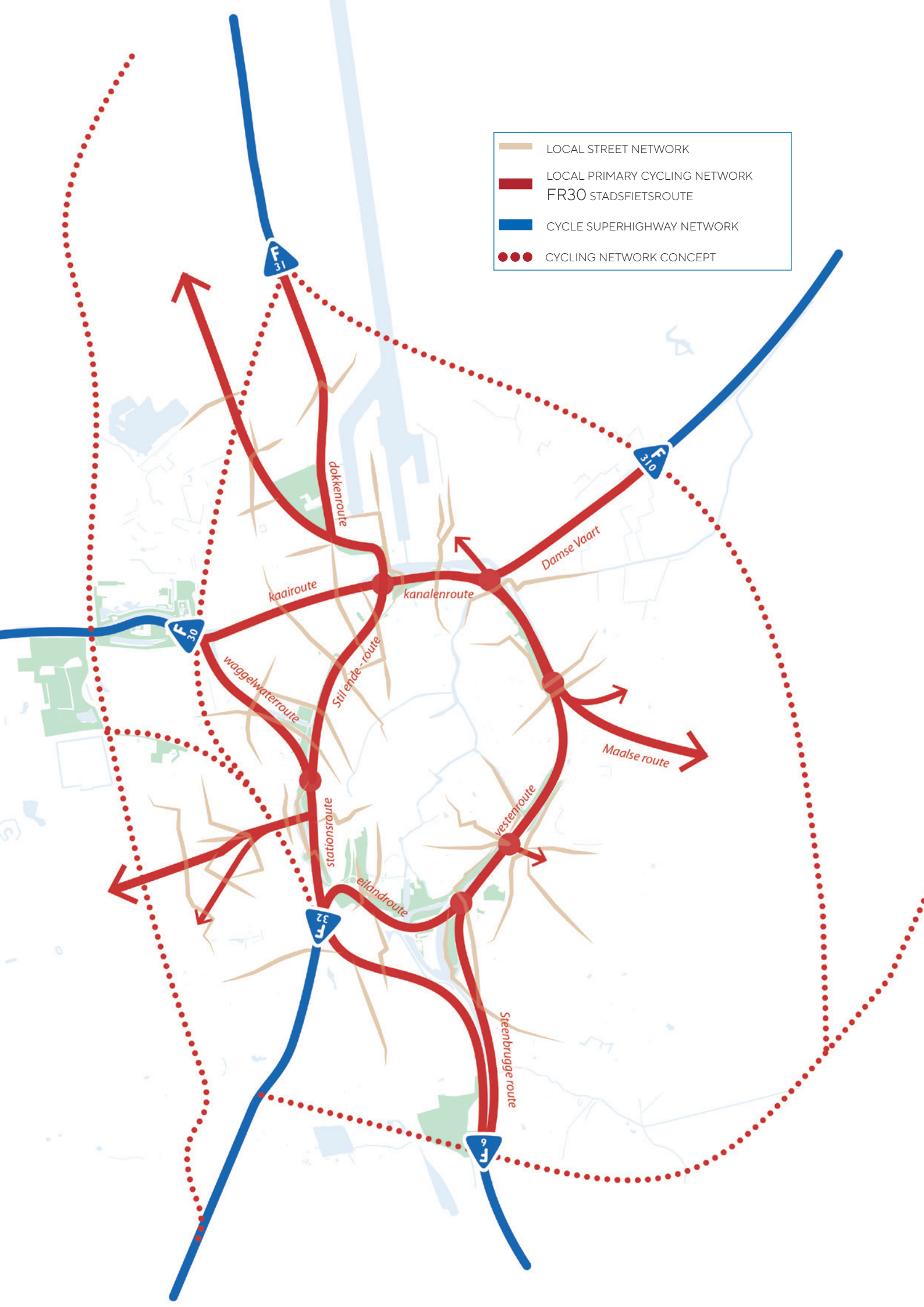
An important flow of traffic in Bruges' runs along a north-south axis, connecting employment centres in the harbour to denser residential areas and other important destinations in the south of the city. The central train station was an especially important node, one that would be better served with a dedicated cycling and pedestrian bridge connecting the southern portion towards the city centre. This in addition to major cycling routes and well-designed nodes are needed.

/ Strengthening radial routes

Bruges' historic city-centre remains an attractive and popular destination for many of the residents living in the surrounding areas. Radial routes such as Steenwegen and other streets leading into the city-centre will remain important routes and must be made more bicycle friendly. Consequently, the intersections of these radial routes with the ring road will become key cycling nodes, needing prioritized attention.

/ Expanding tangential routes

In order to better serve the many important employment and educational destinations located outside of Bruges' historic city-centre, tangential cycling routes must be built. While the radials accommodate trips in and out of the city-centre,tangential routes provide more direct routes among outlying destinations. These tangential routes will be especially strategic in northern areas such as Waggelwater and Sint-Jan Hospital as more daily commutes are shifted to the bicycle.


LOCAL STREET NETWORK
LOCAL PRIMARY CYCLING NETWORK
FR30 STADSFIETSROUTE
CYCLE SUPERHIGHWAY NETWORK
CYCLING NETWORK CONCEPT
F31
F310
F30
F32
F6
dokkenroute
Damse Vaart
kaairoute
kanalenroute
waggelwaterroute
Stil ende - route
Maalse route
stationsroute
vestenroute
eilandroute
Steenbrugge route

REFLECTIONS FROM CYCLING EXPERTS

European cycling experts from Denmark, the Netherlands, France, and Belgium, took part in a symposium organised under the Handshake project to discuss the latest concepts developed in bicycle urbanism and their adaptation to Bruges' new cycling network.

/ MAARTEN VAN DE VOORDE

DIRECTOR OF WEST 8 BRUSSELS

"For many years speed has been the primary goal in mobility. A focus on cars as the preferred means of transport has led to oversized infrastructure, clogged streets, and a high degree of individualism. Today, the City Council chooses to let quality of life prevail. Covered by the words "less speed, more city", Bruges is working towards its bicycle network "2.0", prioritising human scale and interaction."

/ MORTEN KABELL

CO-CEO OF THE EUROPEAN CYCLISTS' FEDERATION

"Copenhagen transformed itself into the wonderfully livable city it is today by prioritising people over moving cars. But it's not how Bruges can become Copenhagen, it's how Bruges can become a better version of itself thanks to the bicycle!"

/ EVELINE WEYERS

REGIONAL MANAGER, FLEMISH GOVERNMENT, FLEMISH AGENCY FOR ROADS AND TRAFFIC

"I see this project as a great opportunity to consider mobility and urban planning in a radically different way. In this mobility project, experts and politicians are focusing on the quality of life of Bruges' historic city, considering street life and people first."

/ PASCAL J.W. VAN DEN NOORT

EXECUTIVE DIRECTOR AT VELOMONDIAL

"Leadership is of the utmost importance to change cities. This is not lacking in Bruges! The enthusiasm with which challenges are accepted and met at all levels is contagious. Bruges is likely to become a future cycling capital!"

GOVERT DE WITH /

BICYCLE POLICY ADVISOR AT THE CITY OF AMSTERDAM

"Cycling infrastructure is often seen as a separate cycle path or a spectacular bridge. However, a normal street in a neighborhood where measures block through car traffic is just as enjoyable for bicycle users. Measures don't necessarily cost more than a few posts and thresholds but the impact can be massive."

PROFESSOR DIRK LAUWERS /

UNIVERSITY OF ANTWERP

"The design of streets should naturally invite inhabitants to shift modes. More space for walking, cycling, public transport and less for cars."

BRAM VERHEIRE /

CYCLING PROJECT MANAGER AT THE PROVINCE OF WEST FLANDERS

"Bruges adds a new level to its attractiveness by developing careful mobility and urban planning. The Province of West-Flandres supports cities such as Bruges which improve their cycling network, working to connect communities in a sustainable environment."

WOUT BAERT /

PROGRAMME MANAGER AT FIETSBERAAD VLAANDEREN

"Anyone who designs a cycle path must be sure that everyone feels welcome. Slow and fast, young and old. And now, the one person = one bicycle concept no longer applies. Cargo bikes are replacing a family car and giving space to a diversity has become extremely important."

STRATEGIC ACTIONS

The FR30 Stadsfietsroute vision is more extensively described in a separate strategic vision paper and roadmap currently only available in Dutch. In these documents important elements such as road segments and intersections are described, translating the vision into more tangible scenes. While the vision remains at a strategic level, the roadmap identifies important building blocks, stakeholders, and a tentative timeline. Where possible, the roadmap leverages ongoing projects (e.g. the renewal of a street) to ensure more cost effective and efficient implementation.

A selection of potential action items are addressed below. Each item has still to be approved. Nevertheless, it is hoped that they initiate dialogue and excitement.

/ DOUBLING UP ON CANALSIDE ROUTES

The R30 ring road is currently designed to disproportionately prioritize fast automobile flow over all other modes. Along this road, the streetscape quality is poor, characterised by asphalt and major intersections. Accordingly, the City of Bruges sees an opportunity to study a 'ladder-like structure', along the canal, with each bridge a ladder rung.

On the inner-city's side, the streets adjacent to the ramparts could be transformed in cycling streets (e.g. Gentpoortvest), hence relieving the pressure on the Vesten - the green park situated by the ramparts and creating a green belt around the historical city. On the R30 side, the integration of a bidirectional cycling path and the reorganisation of the city gates could facilitate cyclists to ride to the next bridge when the first one is opened.

/ MAKING THE CITY GATES MORE WELCOMING

Bruges' historic city gates are crucial points in the city's mobility network, often overwhelmed with cars, bicycle riders, and pedestrians alike. This situation makes the gates one of the most commonly identified safety issues by bicycle riders. But given the critical role within the greater network, to ignore this issue would limit the appeal and use of bicycles throughout the city. Reducing car traffic while clarifying and improving space for bicycle riders and pedestrians is not only necessary, but serves as an opportunity to transform this historic site into an even more attractive public space. Such a transformation is relevant to the ongoing 'Stadsvaart' project.

Finding a balance between a busy entrance to the city and an attractive destination for tourists and residents requires a redesign of Gentpoort. On the city-centre side of the gates, a reorganisation of the intersection would present an opportunity to create a more city-friendly square. Reducing motorized traffic along the adjoining Gentpoortvest to one-way southbound, would allow for the existing cycle path to be converted to a bicycle street to accommodate an increasingly popular route.

No definitive policy implications. Figures are strictly indicative.

AN INNER NETWORK OF BICYCLE STREETS

/ Hendrik Consciencelaan Bicycle Street

On the western portion of Bruges' city-centre, the primary cycling network between Smedenpoort and Bevrijdingslaan will be composed of a dedicated cycle path on Buiten Smedenvest as well as a bicycle street along Hendrik Consciencelaan. As an already quiet street lined with stunning heritage buildings, Hendrik Consciencelaan could make a convenient route connecting to the train station with a greater sense of security for bicycle riders travelling at night. Along this stretch the uncomfortably bumpy cobblestones could be smoothed to maintain the heritage aesthetic while giving bicycle riders a more enjoyable experience.

No definitive policy implications. Figures are strictly indicative.

/ Houtkaai as a Promenade and Bicycle Street

Along the northern edge of the city-centre lies Houtkaai, a peaceful street that could be improved by making more space for promenading and cycling. By reducing motorized eastbound traffic, converting the existing cycle path into a wider promenade, and transforming the roadway into a bicycle street, Houtkaai would become not only a more pleasant street, but would also demonstrate the City's commitment to less speed, more city. On-street car parking would be placed alongside the buildings to ensure a more open canalside view.

No definitive policy implications. Figures are strictly indicative.

INTUITIVE WAYFINDING

An effective and reliable cycling network should lead residents throughout the city along safe and intuitive infrastructure. In order to guide potentially unfamiliar riders along uncharted routes, a clear wayfinding strategy should be implemented. A simple and legible cycling network map will give residents a better understanding of the most reliable routes. Additionally, on-street wayfinding elements direct riders along their way while also contributing to the city's visual identity. Just as London's Underground map is iconic to local residents, these combined wayfinding elements can also serve as a visual representation of Bruges as a cycling city. But most importantly, the cycling network itself will serve as an icon representative of cycling throughout Bruges.

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