# Cycling in Historical Cities: Challenges

# *Florence*

# *as a case study*

*Velo-City 2013, Vienna*

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Federazione Italiana Amici della Bicicletta

# Florence …



## The Renaissance was born here

**1348: population** almost **100.000**

**today**: 380.000, wide area about 800.000

## A new Renaissance …?

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# Moving in Florence



- Cars/population **71/100** (!)
- Modal split: **69% by car**
- daily large impact of **commuters** by car, bus, train

**ZTL** (zona traffico limitato= restricted traffic area): the whole historical center

- 30 km/h, only inhabitants, emergencies etc
- diffused pedestrian areas

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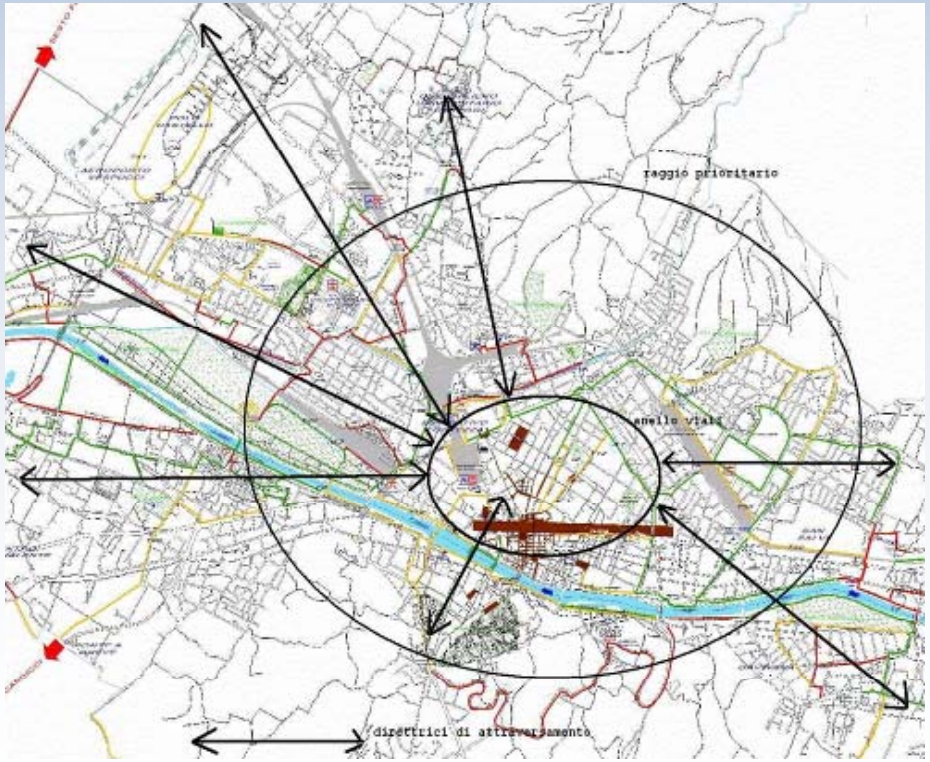
# Florence and cycling?



Florence **largely suitable for cycling**: dimensions, weather, distancies, differences in altitude etc.

5 km cycling range cover a large part of Florence




bike as “mobility queen” (?)

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# Cycling infrastructures

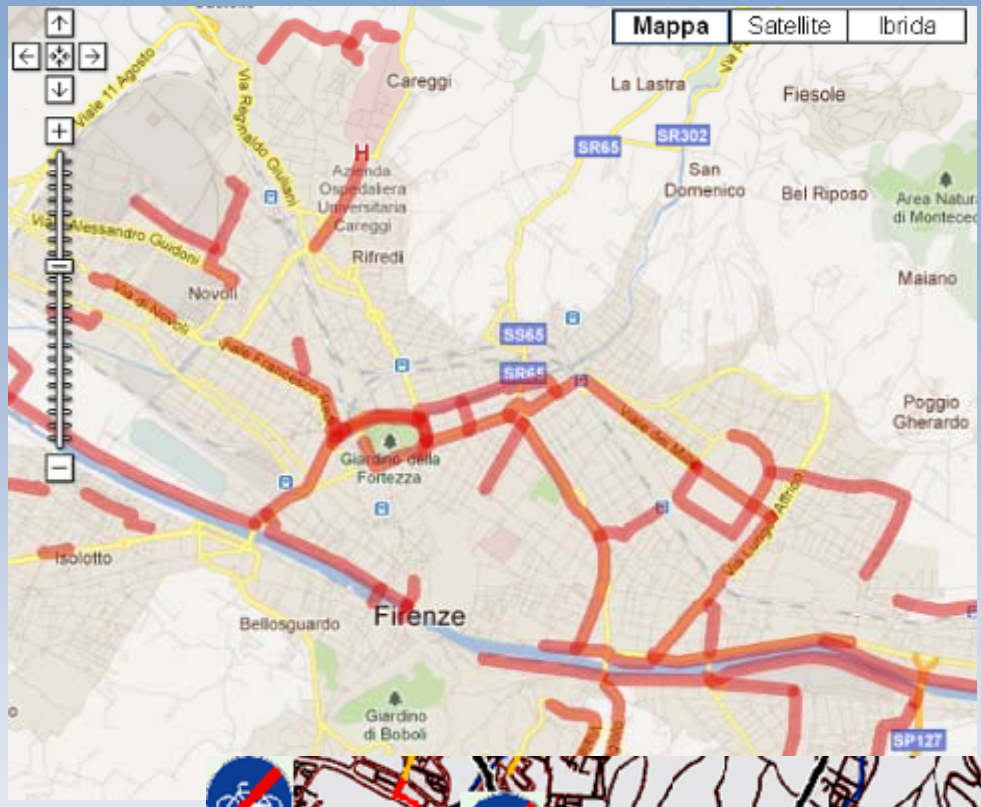


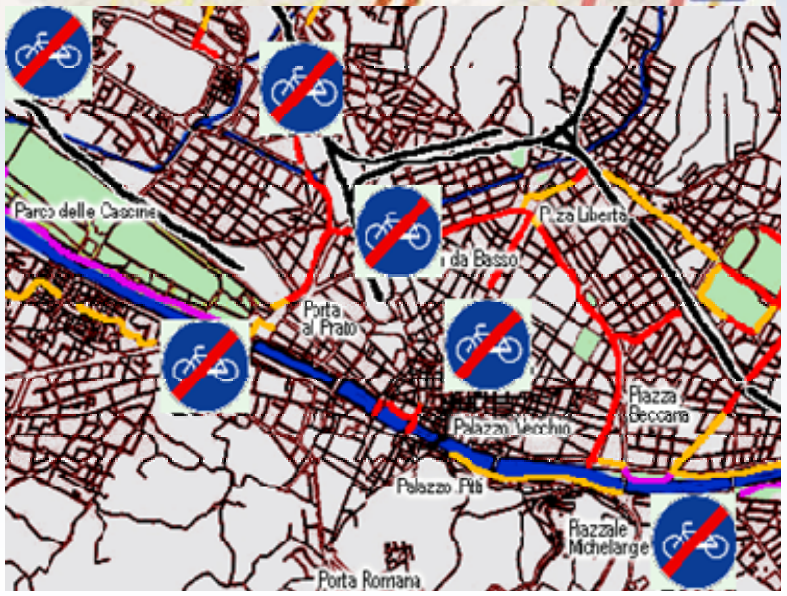
## Existing network

- about 60 km for daily use
- (i.e. bike-to-work etc)
- further 30 km for free time use

but …

- incomplete cover of Florence (i.e north sector)
- many interruptions
- insufficent planning

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# Cycling is popular …



## Daily cycling dimension

For 3 years we counted at 28 ZTL access points from 7,30 to 9,30 a.m.:

- 6.600 bikes
- 13.000 scooters
- in addiction public transport & allowed cars
- bikes about **15%** of **ZTL in/out**

Further:

- bike daily users doubled in 5 years
- every day > 25.000 cyclists "on the road"

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# Why cycling in Florence?



## Problematic aspects

## Challenges

## Opportunities

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# Pollution



- Smog is greatly **damaging** monuments and historical heritage
- due to traffic congestion
- narrow meandering streets unsuited for motorized traffic
- obstruction of monument view etc.

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# Touristic overflow



- interaction with pedestrians: a lot of conflict situations.
- tourist industry tends to push residents out of the historical centers

# Logistic



**i.e.**

- product distribution is difficult
- conflict situations between commerce and historical heritage

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# Public transportation



- difficult access to historical center, only bus network
- conflictual development of pedestrian areas and tramway/bus network

(e.g. tramway in front of the Cathedral)

# Restricted access?



- within the area formerly surrounded by medieval walls (so-called **ZTL**) motorized traffic pressure stays **high**
- exceptions and too complex regulation cause large abuse

# Cycling, part of solution

In bici per l'ambiente

- Municipality under pressure for mobility difficulties
- Insufficient planning, infrastructures and support for cycling

On the other hand

- Do-it-yourself cycling shows potentialities
- Bike lobby is growing

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# Wich strategy?



- Radial cycle network
- Cycle/pedestrian areas
- Re-design of whole mobility, reduction of motorized traffic
- More rights for bikes : contraflow cycling, permited on bus lanes, etc
- Bike logistics
- Bike parking

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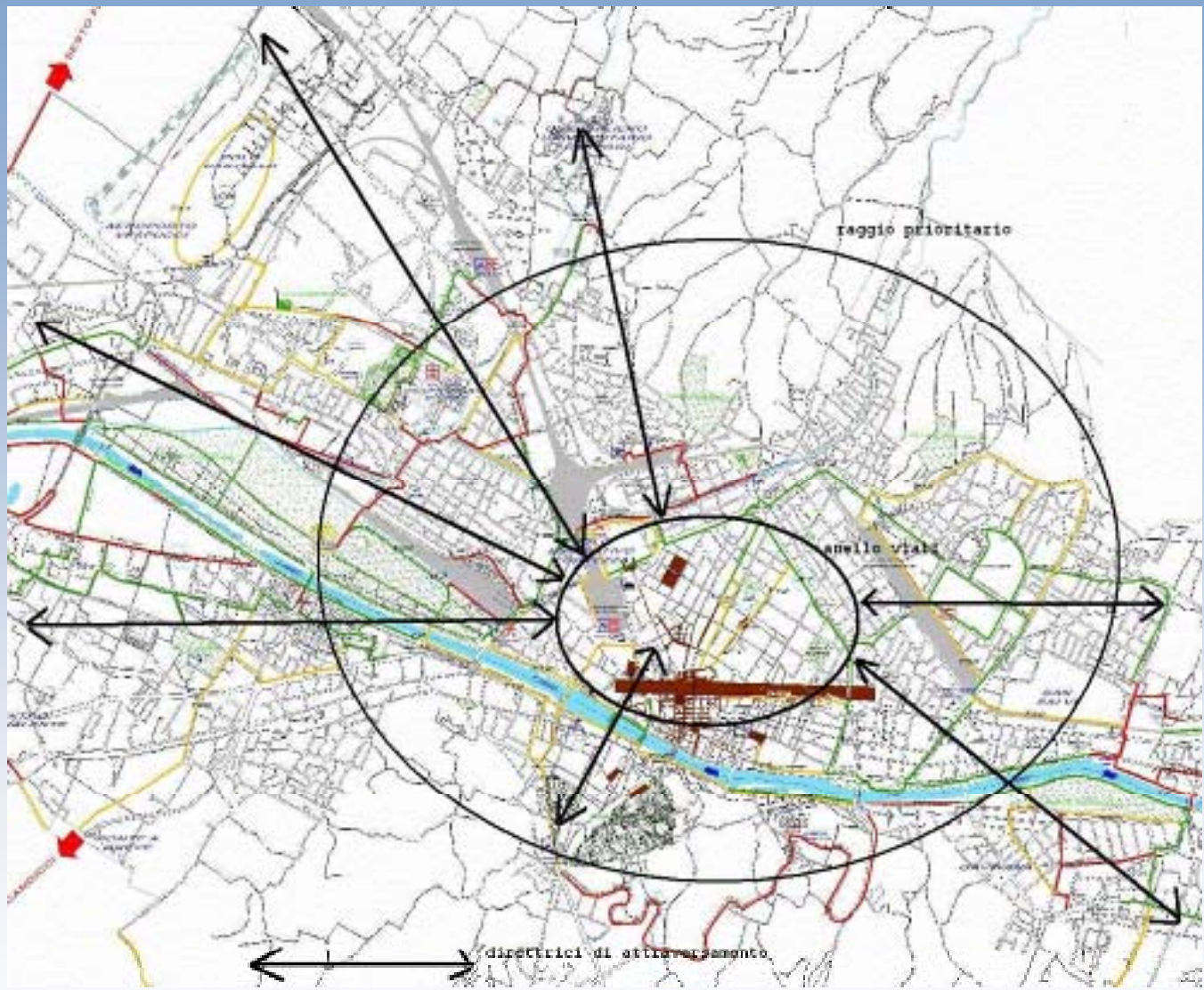
# Radial cycle network



- Radial accessibility toward the historical center, mostly a bicycle path network along given straight directions

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# Combined cycle/pedestrian areas



Further development of cycle/pedestrian areas either

- *promiscuous*

or

- *separated* (horizontal signposting)

# Bikes, pedestrian … and water



- direct ways for bikes through historical center
- diffused contraflow cycling
- allowed on bus reserved lanes
- more cycle/pedestrian areas

"*bikes, pedestrians and water follows the shorter path*"

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# Cycle logistics



More facilities and support for

- rickshaw
- cargo bike delivery services
- bike messengers

# Cycle parking



massive ZTL-access by bike needs parking facilities:

- increased installation of bike racks
- extending legal bike parking in many contexts
- "ciclo-stazioni": bike parking at railway stations - encouraging bike+train commuters

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# Reduction of motorized traffic



- without a strong reduction of motorized traffic no more cycling growth

- forced reduction not only in the ZTL (restricted access area) need a redesign of whole mobility and public transportation (tramway and bus network)

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# for a new Renaissance …



*Who*: local FIAB association "FirenzeInBici" (700 members)

*What*: a "Cycling Florence" from 9% to 15% bike modal split

*How*: lobbying the local government

***we will try it***

15%

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In ITALY:

Federazione Italiana

Amici della Bicicletta

**www.fiab-onlus.it**

Member of: EUROPEAN CYCLISTS' FEDERATION

In Florence:

Firenzeinbici

*(Fiab local branch)*

**www.firenzeinbici.net**

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# qui foto da usare …

## titolo: state of the art, self-made-cycling …

**sottotitolo**

- fai-da-te
- ZTL incentiva bici (senza interventi)
- rete miserabile
- inquinamento: monumenti
- traffico-> +separazione

# Attractors



Historical centers are oftentimes the highest attractors of cycle mobility, both along house-to-work or house-to-school itineraries and to interact with services and amenities typically located in the city center (leisure time, culture, administrative offices, shopping, etc.)

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## Titolo

S. Marco - p.za Indipendenza ...
il "giro pesca"...
(1800 metri)
la via più breve,
"come l'acqua"
(450 metri)

# ops …



- homogeneity vs frequent interruption of bike routes
- especially on critical points (i.e. large road crossings)
- if needed smart traffic lights

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# title: state of the art, self-made-cycling …

- **Pollution** is greatly damaging monuments and historical city centers (IMG). Cities famous for their historical heritage meet serious problems due to traffic congestion, wild parking (IMG), narrow meandering streets unsuited for motorized traffic, obstruction of the monument view, etc.
- Interaction with pedestrians is typically very conflictual (IMG).
- Expansion of the tourist industry tends to push residents out of the historical centers (IMG). Certain strata of the population are more at risk (by income: poorer people; by mobility: elderly people or workers who need to move around, etc.)
- **Logistics** in product distribution is difficult (IMG).
- When pedestrian zones are introduced and even some difficulties for **public transportation** (e.g. tramway in front of the Cathedral, IMG) can make historical centers difficult to access.
- In spite of several limitations to private traffic within the area formerly surrounded by the medieval walls (so-called**ZTL**) the pressure coming from motorized traffic stays high: exceptions or abuses, pressure from neighboring areas, etc.
- **Bicycles can be a solution** to all of these problems (IMG)
- On the other hand, in order to make historical centers really bike-friendly, Administrations need to put in place strong limitations to traffic and parking, knowing that resistances will be encountered and adverse lobbies will be strong. By the same token some concrete problems are present since, at times, the need to keep motorized traffic separate from bicycles may involve some risk of compatibility with the historical architecture (IMG). In a city with heavy tourist presence, going through herds of tour groups possibly on headphones may present some friction (IMG).
- Historical centers are oftentimes the highest attractors of cycle mobility, both along house-to-work or house-to-school itineraries and to interact with services and amenities typically located in the city center (leisure time, culture, administrative offices, shopping, etc.)

Strategy:

- Radial accessibility toward the historical center, mostly a bicycle path network along given straight directions
- Introduction of pedestrian areas allowing bike transit, either promiscuous or separated (horizontal signposting).
- Relevant/marked reduction of motorized traffic, reducing it to residents and essential services
- Direct access ways for bikes in the historical center (one way streets except for bikes, reserved lanes, pedestrian areas).
- Incentives given to bike messengers and bicycle and trycicle delivery services.
- Increased installation of bike racks.

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