HOW A ZTL (TRAFFIC-LIMITED ZONE) IN BRESCIA'S HISTORIC CENTER IMPROVED QUALITY OF LIFE FOR BOTH RESIDENTS & VISITORS

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PURPOSE OF ZTL (TRAFFIC LIMITED ZONE)

Livability of the historic city center

Not Revenue

€
FEATURES OF ZTL

Entry signs, sometimes pavement markings and cameras.

Each city sets the hours, could be 24/7.

Each city determines the authorized users.

Typically allow small window of time for deliveries within the restricted time.
HOW ARE ZTLs DIFFERENT?

Congestion Charge and Toll Zones: Everybody allowed in as long as they pay:

£ € kr

Pedestrian Zones: No vehicles allowed period.
HOW ARE ZTLs DIFFERENT FROM “IN-BETWEEN” STRATEGIES??

LEZ target the vehicle

ZTL target the driver:
Is he a resident? Or disabled?

Lorry bans target the vehicle

Too big or too heavy

Too much!
ZTL IN ITALIA (PRELIMINARY)

Percento di comune italiani con ZTL by populazione

- > 250k
- 150k-250k
- 90k-150k
- 50k-90k
- 20k-50k
- 10-20k
- 5k-10k
- <5k
Perche’? Why have so many cities implemented ZTL?

in Brescia, the reasons cited were:

• Improve the livability of the historic city center
• Enhance the open space near the most precious historic treasures
• Promote cultural activities and sustainable mobility
• Provide incentives for pedestrians and cyclists
BRESCIA AND CITY CENTER
CITY CENTER
BUT NOT ZTL

CASTLE

PORTAL DI ACCESSO ALLE ZTL

LEGENDA
- 8.00 - 20.00
- 0.00 - 24.00
- AREA PEDONALE
- AREA PEDONALE PRIVILEGIATA
GROWTH OF THE ZTL AND PEDESTRIAN AREAS IN BRESCIA

ZTL
Area a pedonalità privilegiata /1/2/
Area Pedonale
NOT JUST ZTL BUT PERIPHERAL PARKING LOTS AND A METRO
TIMELINE OF MEASURES TO IMPROVE THE CITY CENTER
1. Two types of ZTL
- 24 hours per day
- 8 to 20

2. Two types of pedonale
- Area pedonale
- Zone a pedonale privilegiata

3. Pedestrianized Piazzes
MY research: Has anything changed?

- Traffic volumes
- Traffic crashes
- Mode split
- Population / Age
- Families
- Noise
- Air Quality
WHAT HAS GOTTEN BETTER?

Reduction of:
• Traffic Noise
• Traffic Fumes
• Traffic Cracishes

Increased:
• Livability
• Walkability
• Pedestrian safety
AUTO TRAFFIC 1995 - 2015

Trend - Auto Traffic Volumes
Brescia 1995-2015

- Inbound into Center
- Outbound from Center
- Control-tangential
TRANSIT USE HAS INCREASED
My Survey

Three main subject areas:
1. Travel behavior and car ownership;
2. Rating the livability of the neighborhoods, both within and outside the ZTL;
3. Advantages and disadvantages of the ZTL.

Four main target groups:
1. ZTL residents
2. City center residents (not ZTL)
3. Brescia residents outside the city center
4. People who don’t live in Brescia (workers, students, visitors)
1. Livability Comparison
How do you rate your own neighborhood for livability?

People who live in the city center think their neighborhood is just as livable as those who live elsewhere.

- **Live in ZTL**
- **City Center not ZTL**
- **Brescia not city center**
- **Outside of Brescia**

Neighborhood livability rating by location of residence:

- **5. most livable**
- **4. livable**
- **3. medium livability**
- **2. fair enough**
- **1. not very livable**
C. DISTURBED BY NOISE FROM TRAFFIC & CARS

<table>
<thead>
<tr>
<th>Location</th>
<th>Everyday</th>
<th>More than once a week</th>
<th>More than once a month</th>
<th>About once a week</th>
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<tbody>
<tr>
<td>outside of the city of Brescia</td>
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<td>in Brescia but outside of the centro storico</td>
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D. DISTURBANCE BY TRAFFIC SMELLS

- **outside of the city of Brescia**
- **in Brescia but outside of the centro storico**
- **in the centro but not the ZTL**
- **In the ZTL**

- **everyday**
- **more than once a week**
- **about once a week**
- **more than once a month**
Bottom line:
How do you like living in the ZTL?
If you could change the ZTL:

- Vorrei ampliare l'estensione della ZTL.
- Vorrei che l'orario rimanesse uguale.
- Vorrei ridurre le ore della ZTL.
- Vorrei ampliare l'orario della ZTL.
- Vorrei la ZTL 24 ore/giorno.
- Vorrei eliminare la ZTL.

ZTL residents  ZTL non residents
LIVABILITY INDEX (IN PROGRESS)

BEFORE

AFTER

- Collisions, fatalities and/or severe injuries
- Safety measure 2 - pedestrians
- Traffic volumes
- Car ownership
- Families
- Children >=14
- Modal split
- Opinions of residents
- Opinions of visitors
- Some measure of tourism/visitors
- Hang out outside, seats outside etc.
- Air pollution: breathability, fumes
- Noise from traffic and cars
- Opinions of visitors

- Collisions
- Safety measure 2 pedestrians
- Traffic volumes
- Car ownership
- Families
- Children >=14
- Modal split
- Opinions of residents
- Opinions of visitors
- Some measure of tourism/visitors
- Hang out outside, caffes openair
- Air pollution breathability fumes
- Noise
QUESTIONS?

Thank you!

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