

Moscow International Transport Expert Council

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**International examples of  
urban transport contribution  
to sustainable cities:  
The assets of Moscow**

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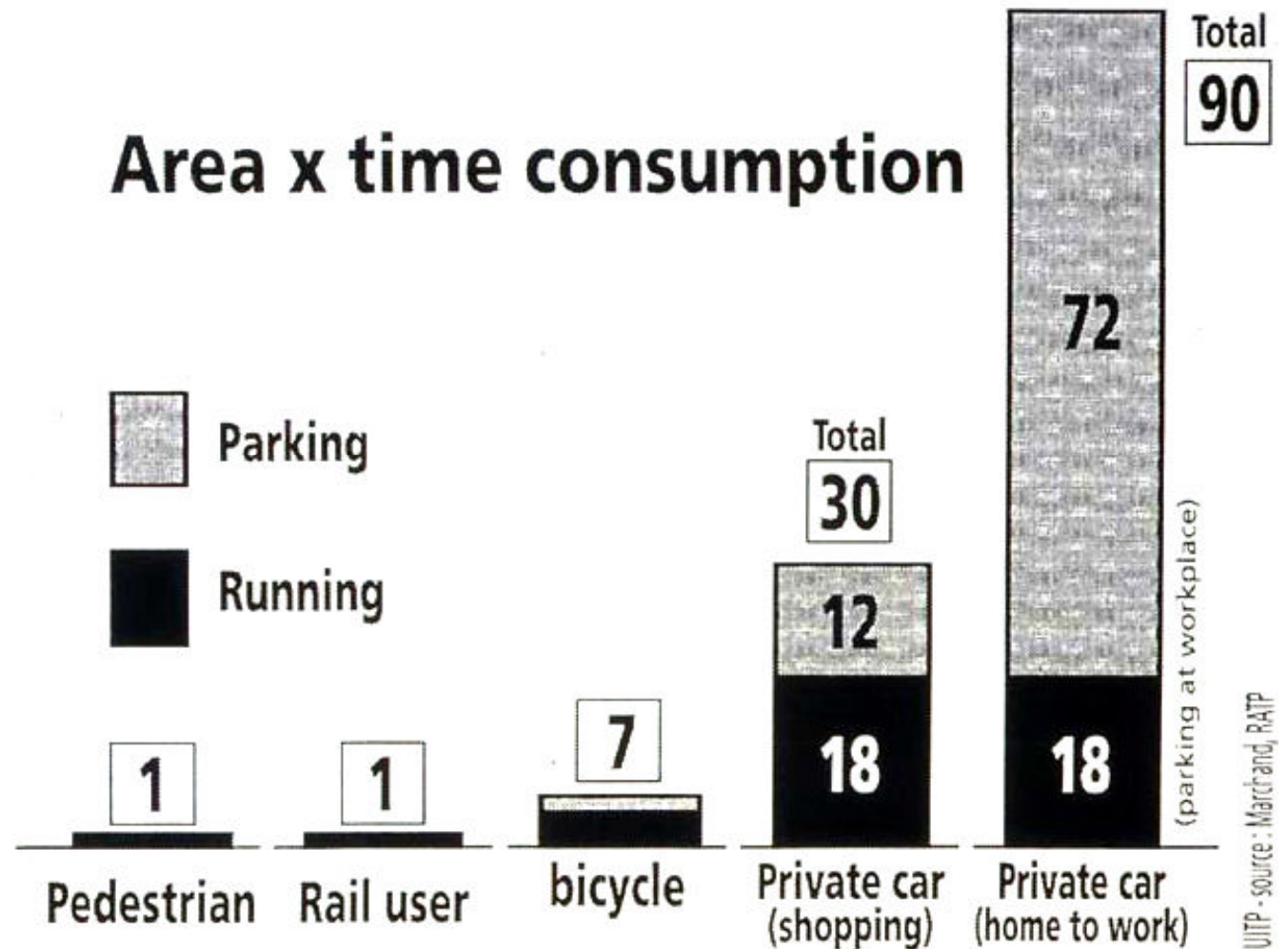
# **I. WHAT CRITERIA?**

## **How to choose transport investments?**

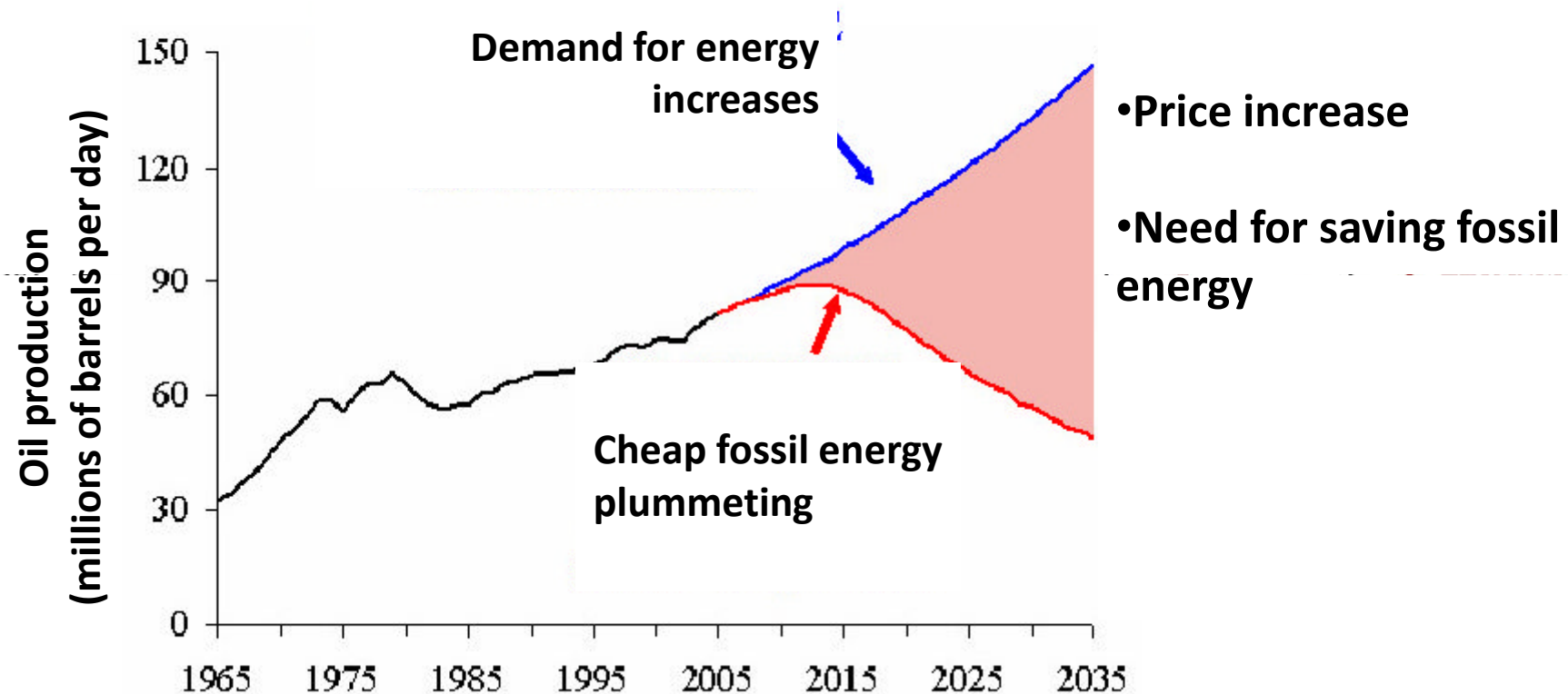
1. Resource savings
2. Health savings
3. Saving the liveable city

# 1. Resource savings: urban space

If one takes the space consumption by a pedestrian as the benchmark, the car takes up about 18 times more space than a pedestrian, as it moves, but it requires parking for the time it does not move, i.e. for some 90 % of its life cycle. Space consumption therefore has an area x time dimension. The space consumption generated by traffic on new highways is nearly 100x higher than by rail transport. The UK SACTRA Report (1995) has shown that additional roads generate more additional traffic than their additional capacity.

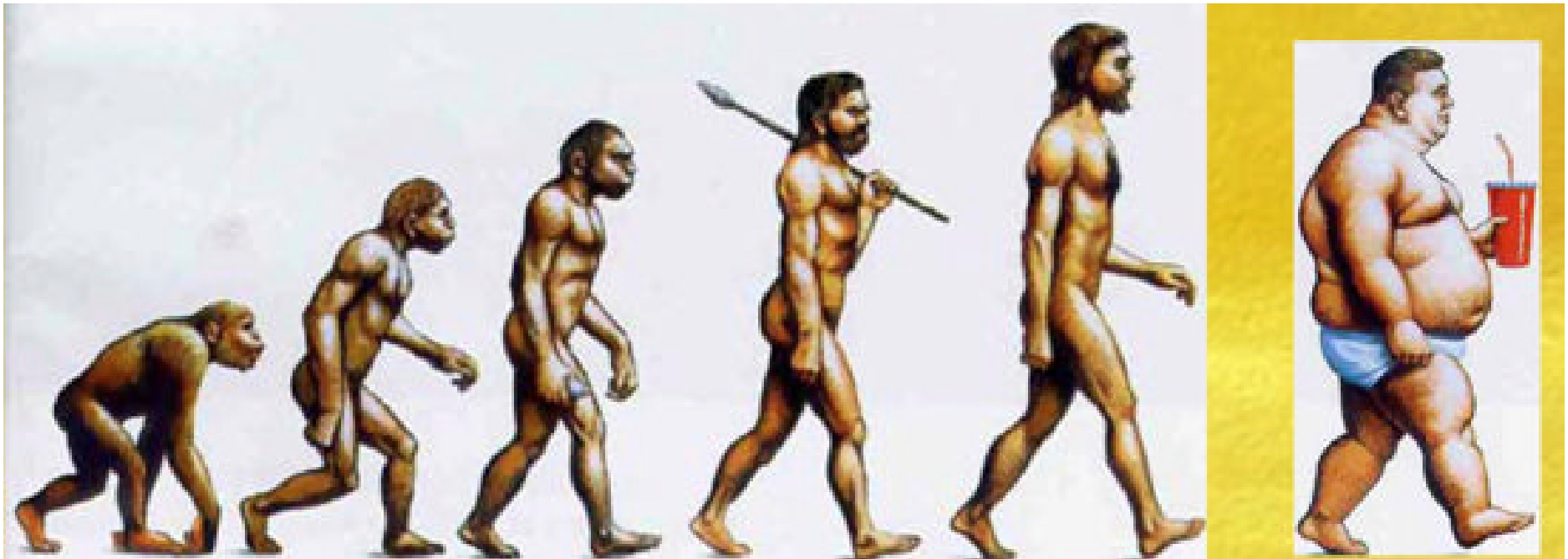


# 1. Resource savings: energy



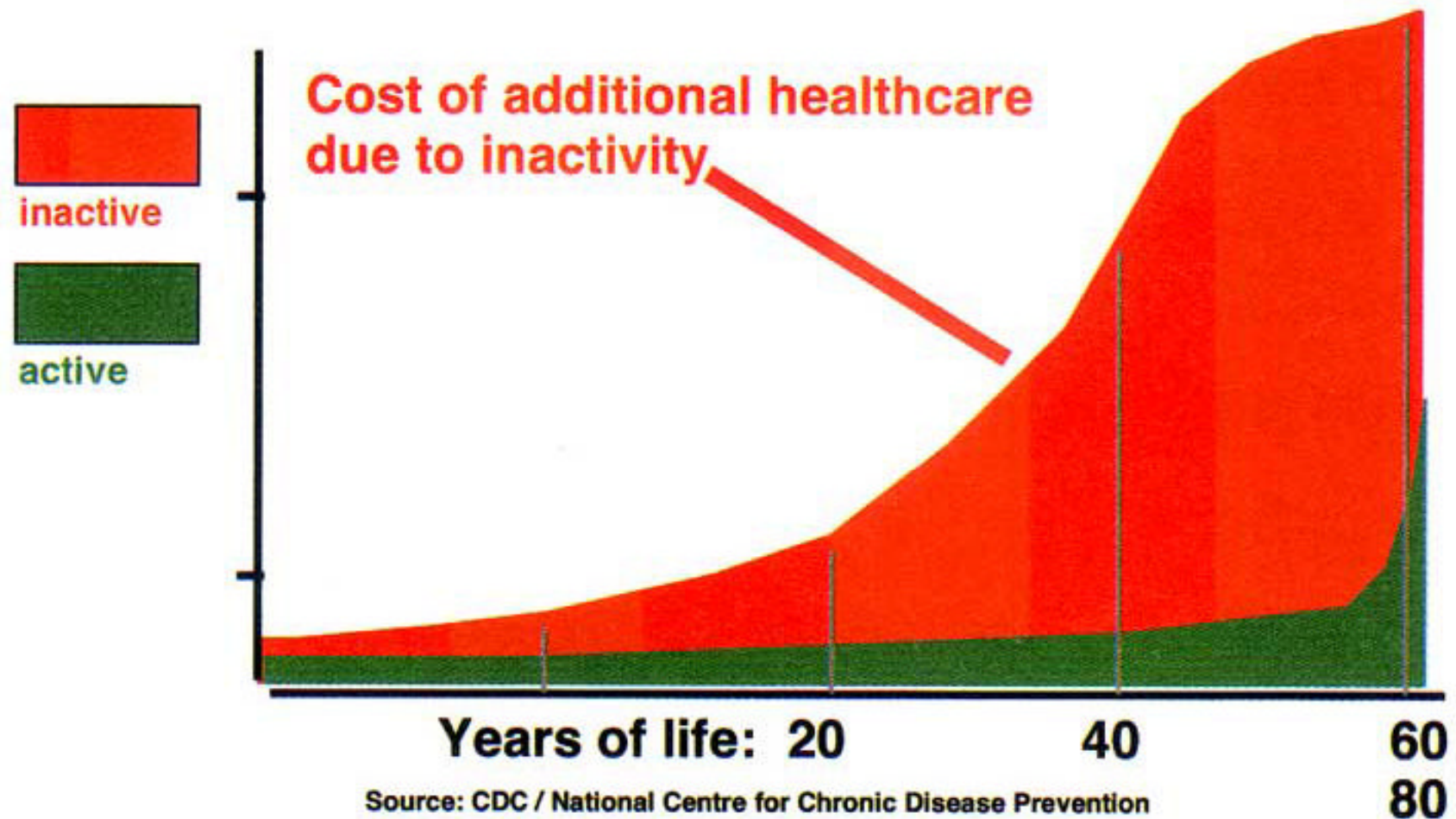


## 2. Health savings



Source: The Economist

## 2. Health savings



The cost of additional healthcare costs entailed by physical inactivity (less than 30' walking/day) has been estimated by the UK National Centre for Chronic Disease Prevention.

### 3. Saving the liveable city

Mobility at human scale makes Cities more liveable and enjoyable – poster by Friedensreich Hundertwasser for UITP (1995).



## **II. EXAMPLES OF BEST PRACTICES OF CONSEQUENCE TO MOSCOW REGION**

### **1. Megacity: London**



# A CROSS-LONDON RAIL LINK

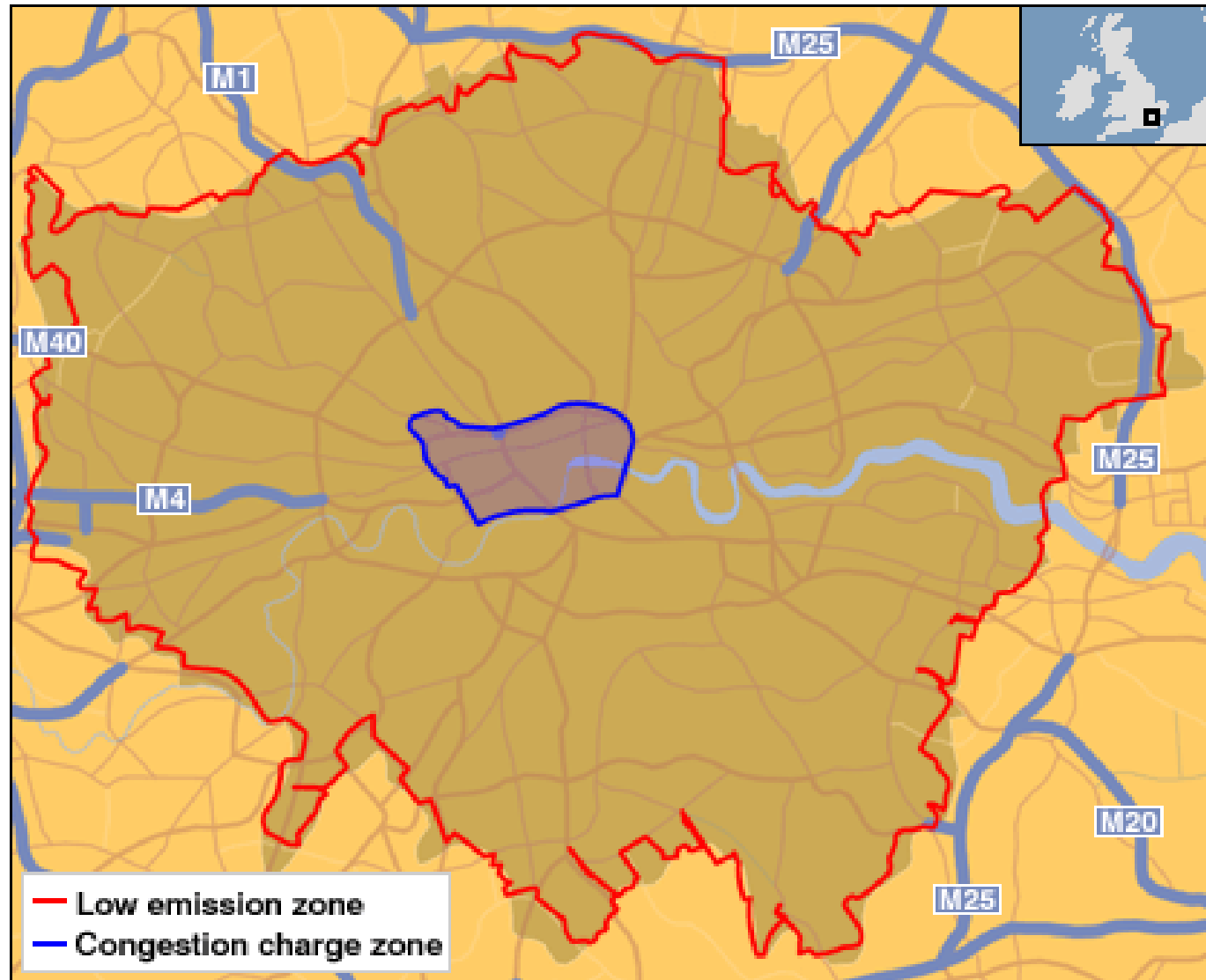


Cross-rail and Thames link are huge transversal railways including both metro and rail. It was fully submitted to the consultative process through London Travelwatch ("Registry of Complaints").

# The Low Emission Zone

## Cleaner air for Greater London

The Low Emission Zone allows to check the degree of pollution produced by vehicles entering the City.





London: Chek-in/check-out Oyster Card for the Underground. Debit full trip on entrance. Credit on unused part on exit. Its coverage was extended in 2010 to commuter railway lines, doubling its usage.



London congestion charge to enter Central London by car – payment can take place by SMS.



## **2. Large city: Curitiba (Brazil)**

- Curitiba, which developed highly innovative urban development tools linked to rural land protection. The slides illustrate the concentration of urban development in the centre, while keeping the rural areas rural. The pressure to transform the rural areas into urban use was avoided by allowing the rural land owners to transfer their development rights to developers wishing to build in the centre.







THESE BOULEVARDS WERE ADAPTED TO HIGH DENSITY DEVELOPMENT THROUGH AN INNOVATIVE BUS RAPID TRANSIT NETWORK. THE COMMERCIAL SPEED IS COMPARABLE TO AN UNDERGROUND. BECAUSE OF THE VERY FAST ENTRY AND EXIT.



AFTER 40 YEARS THE SYSTEM IS STILL  
EXPANDING (LINHA VERDE).



### **3. Medium city: Zürich**

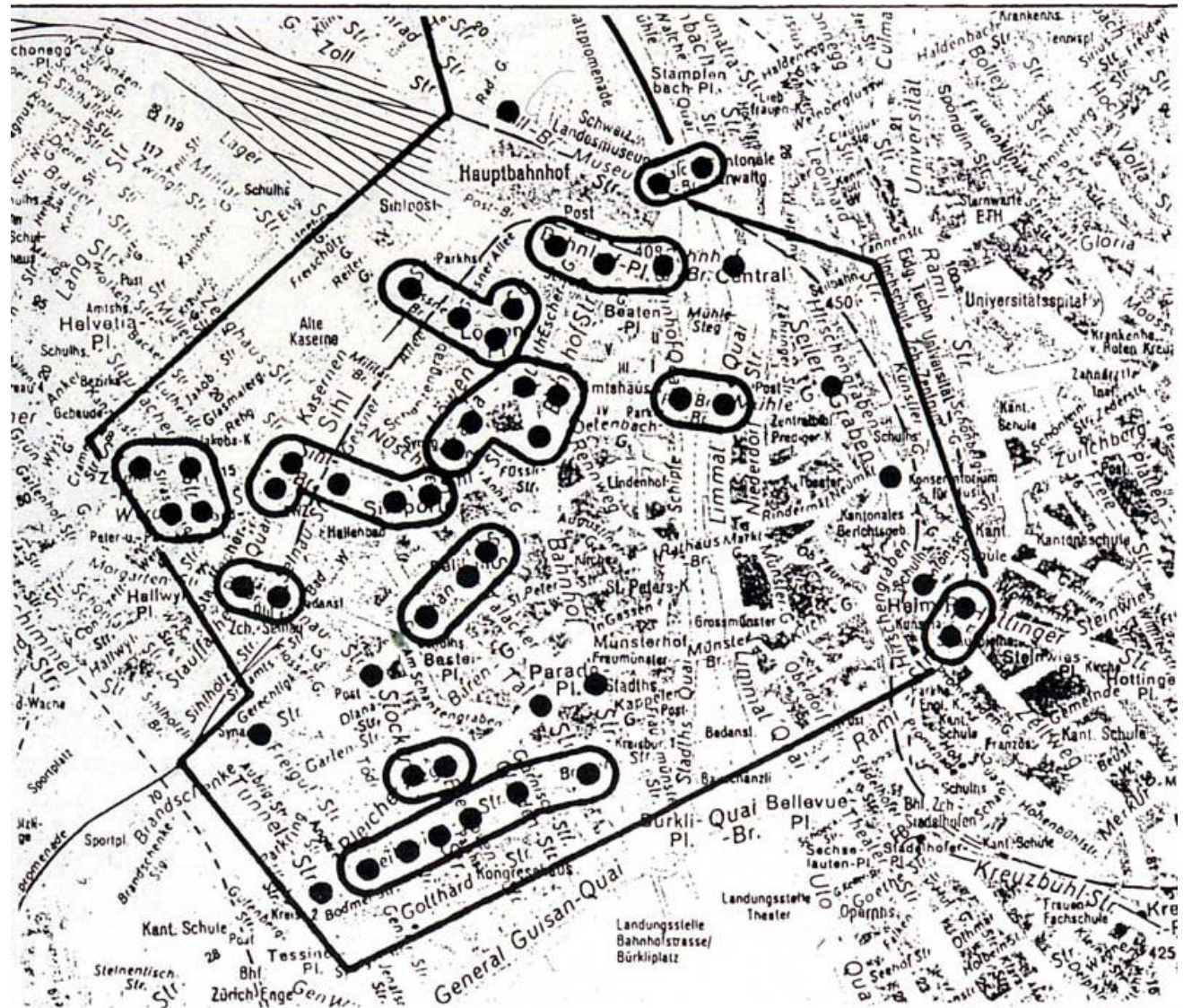


Zurich traffic management:  
In Zurich, trams and buses enjoy absolute priority on street. When approaching a traffic light the sensor (shown on the lower left) ensures they have a green light at any time of the day. The reliability of timetables makes public transport the City's fastest mode of transport. Modal split is around 80% in favour of public transport.



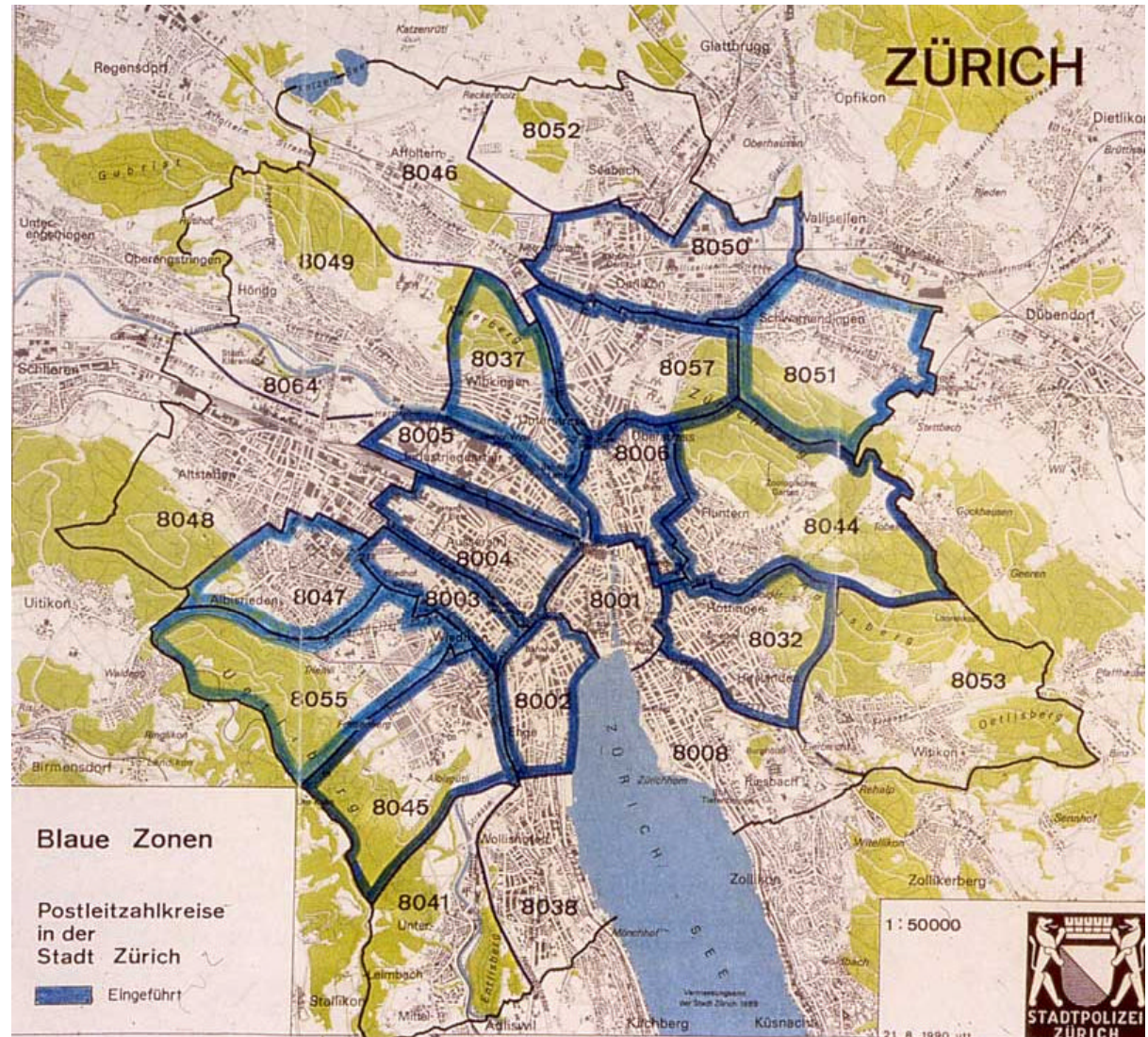


Zurich's -  
automobile traffic  
calming through  
traffic light cycle  
control (suppression  
of "Green Waves"):  
Traffic-calming is  
ensured by adapting  
the traffic lights  
system (a much  
shorter cycle favour  
pedestrians, cyclists  
and public  
transport). Source:  
City of Zurich Police  
Department.





Zurich parking management:  
Unrestricted on-street parking is exclusively reserved for Zurich-registered residents, while automobile commuters entering the city from other municipalities are subject to limits on their parking time. This parking measure has entailed a large-scale return of inhabitants to the city, has benefitted the public car parks and has been politically rewarding for the city fathers, while suburban rail travel has been made easier. This system could be applied in any city where commuters come from other electoral districts.

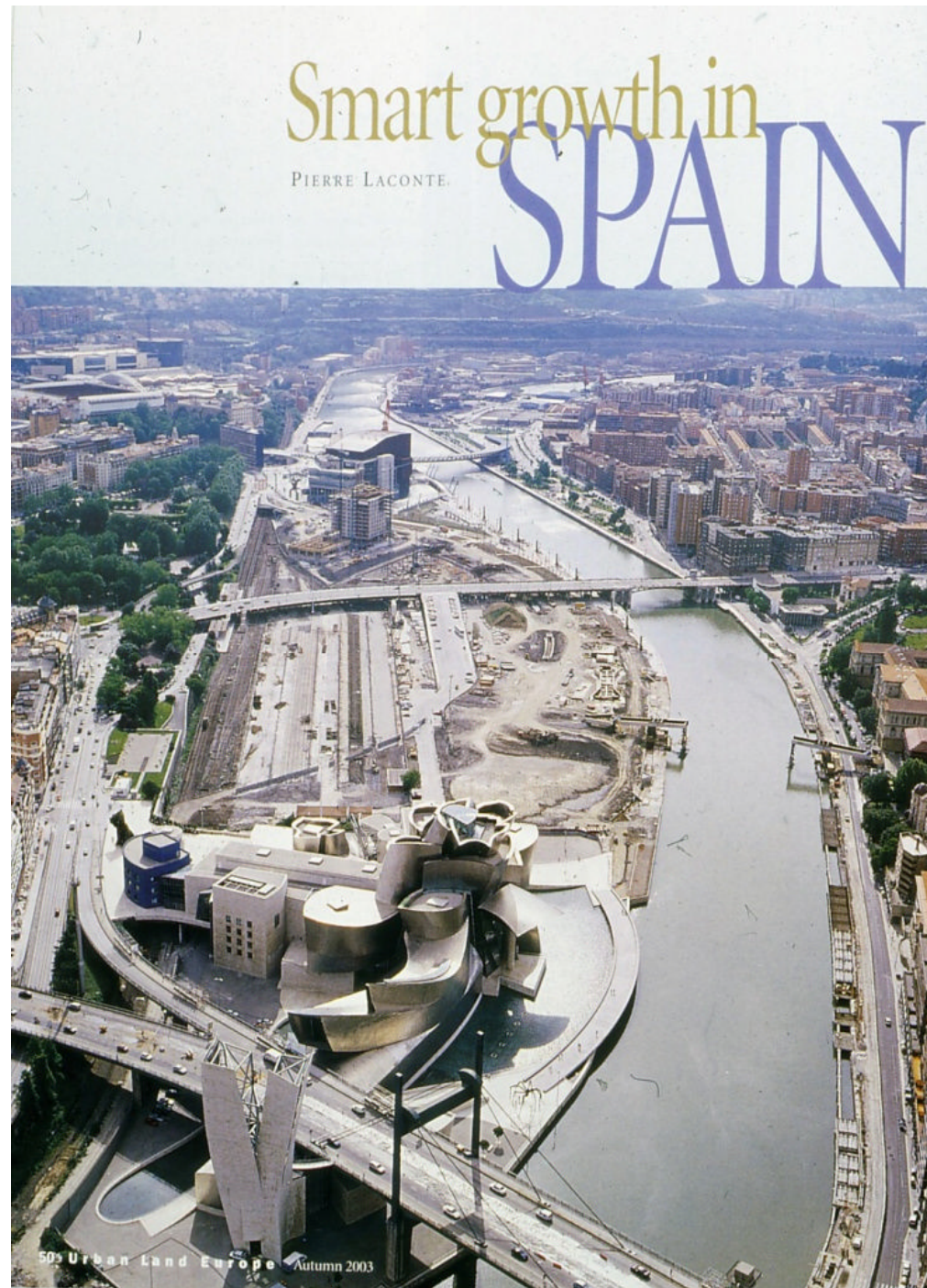


## **4. Specific parts of cities:**

### **Bilbao industrial area regeneration**



IN BILBAO, THE DERELICT INDUSTRIAL AREA ALONG THE RIA, OWNED BY SEVERAL PUBLIC BODIES, WAS UNIFIED BY A COMMON DEVELOPMENT PLAN AND A COMMON PUBLIC IMPLEMENTATION CORPORATION – RIA 2000.





- The industrial land was re-used for new activities, based on services and culture, while preserving architecture heritage.





- The two anchors for new development, at each end of the site, were the new Guggenheim museum and the Congress and concert centre.





The Congress and concert centre complex includes maritime and industrial conservation spaces, aiming at commemorating the City's industrial past.



Image 14. Euskalduna Palace Conference and Music Centre and its environment



- A 35 ha area along the Rià Canal has been handed over to a public consortium entrusted with its reconversion, all proceeds being devoted to new public infrastructure and urban rehabilitation.





ITS  
IMPLEMENTATION  
WAS FINALISED IN  
2011.





- A new tram line serves the canal shore in the urban centre, saving traffic and parking space and adding to the citizens' quality of life.



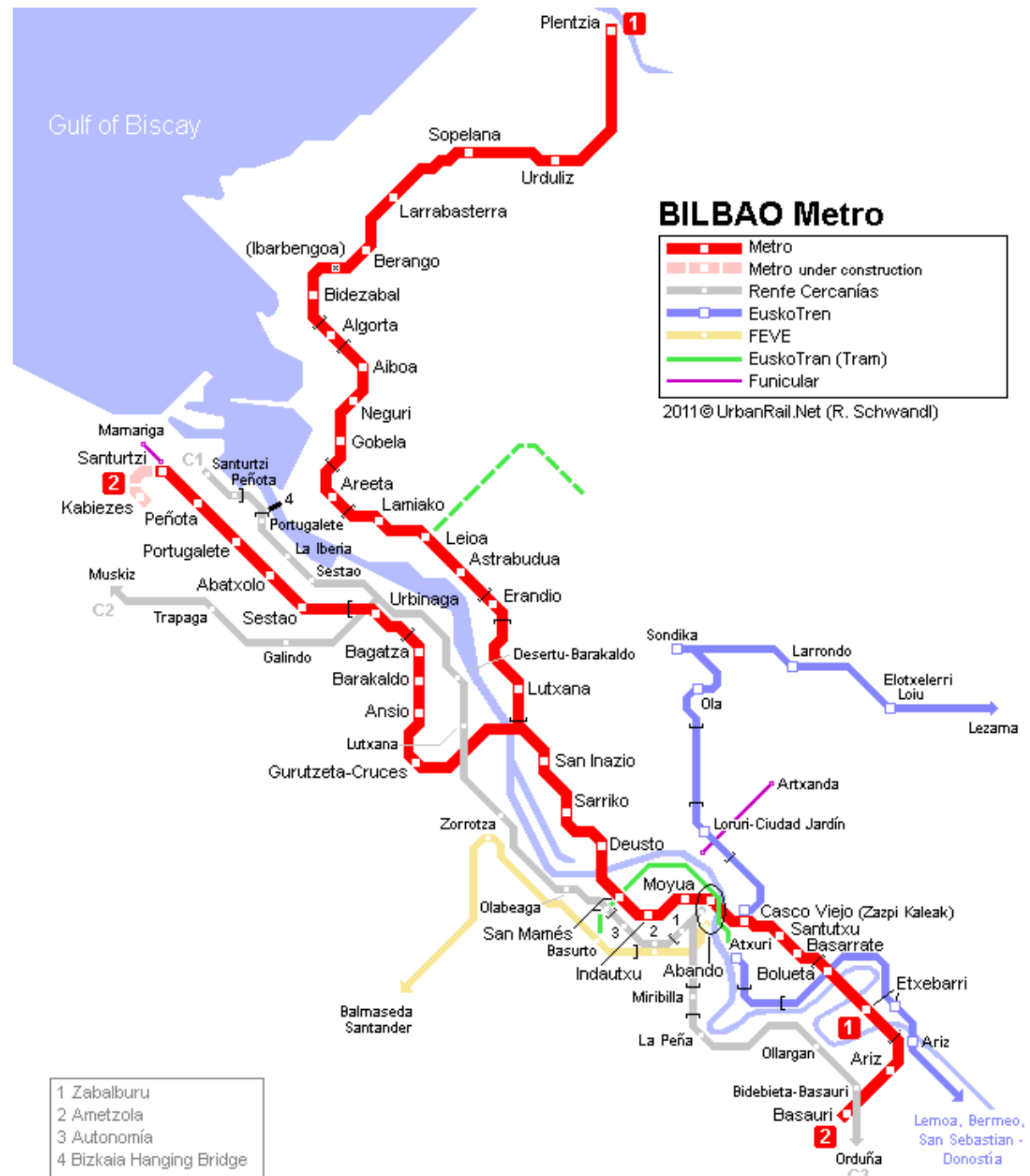
Image 02. Tram stop



Huge proceedings stemming from the Rià 2000 projects are used to rehabilitate other decaying areas



Reusing old industrial rail for new urban development throughout the city and its region.



**5. Transit oriented suburban  
development: Louvain-la-Neuve  
University town (near Brussels)**





FROM 1976 THE NEW RAILWAY STATION BECAME THE CENTRE OF THE DEVELOPMENT.  
THE TRACKS ARE TO BE COVERED BY A SHOPPING CENTRE EXTENSION.





Louvain-la-Neuve university town: entrance to the underground railway station. All streets are pedestrian and combine university buildings, housing, retail and cultural services. Land remains property of the University and is leased to investors.





Louvain-la-Neuve university town: View of one the numerous small piazzas on the pedestrian streets network. Cars are parked underneath.





Louvain-la-Neuve university town : all storm water is led to a reservoir treated as a lake, which attracts housing investments.

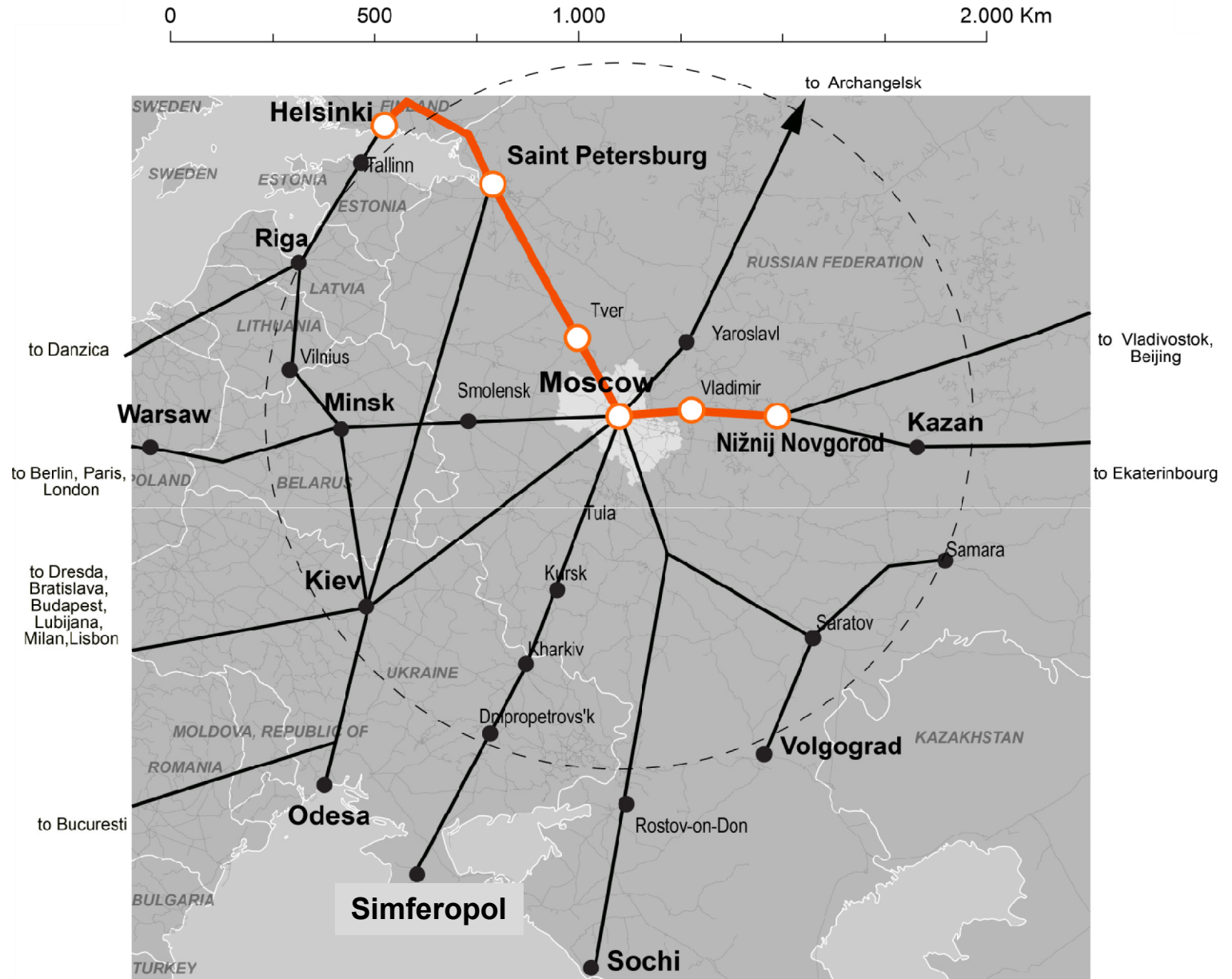


### **III. SPECIFIC ASSETS OF THE MOSCOW REGION**

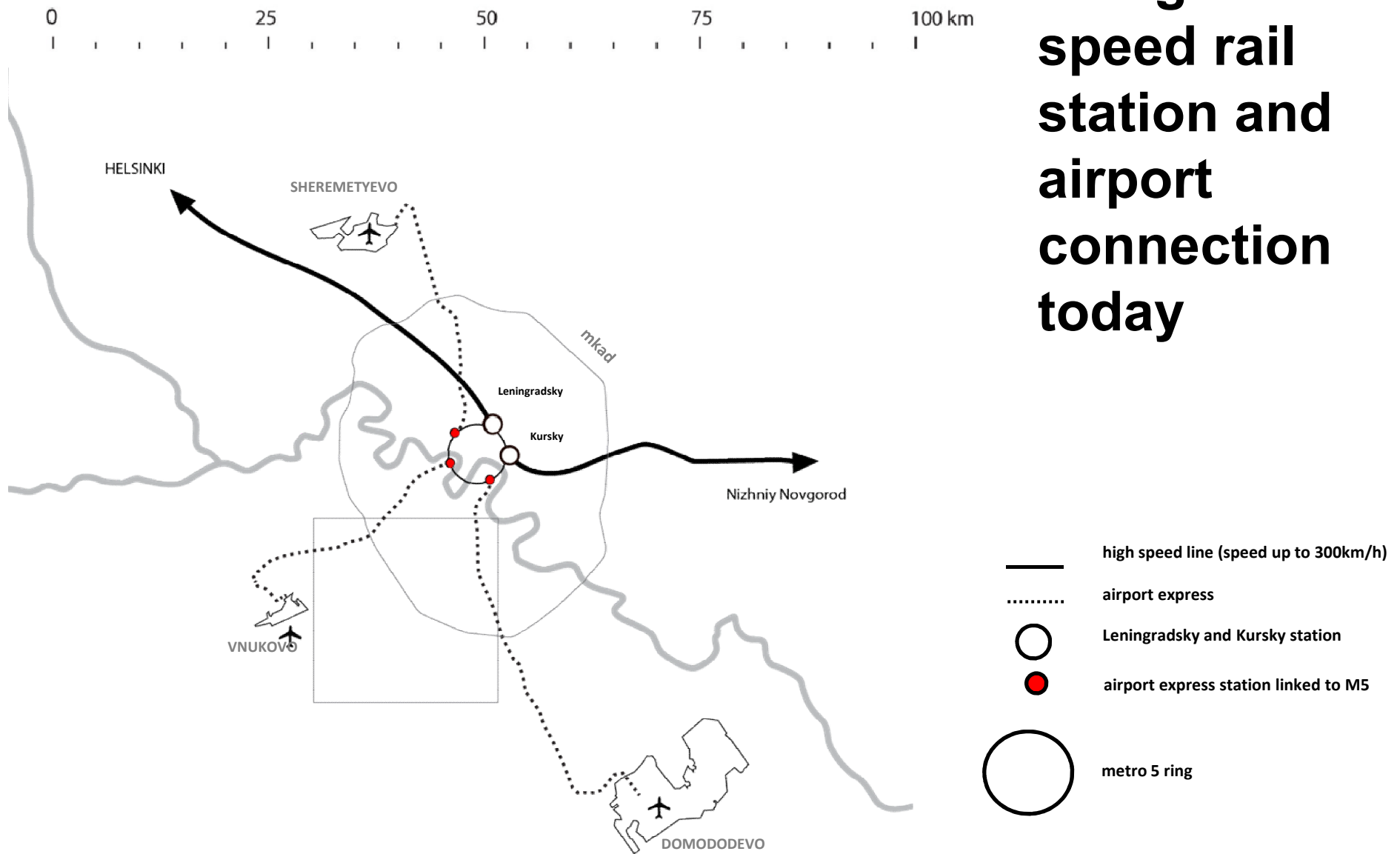
**Linking high speed rail with urban rail  
(Commuter and Metro)**

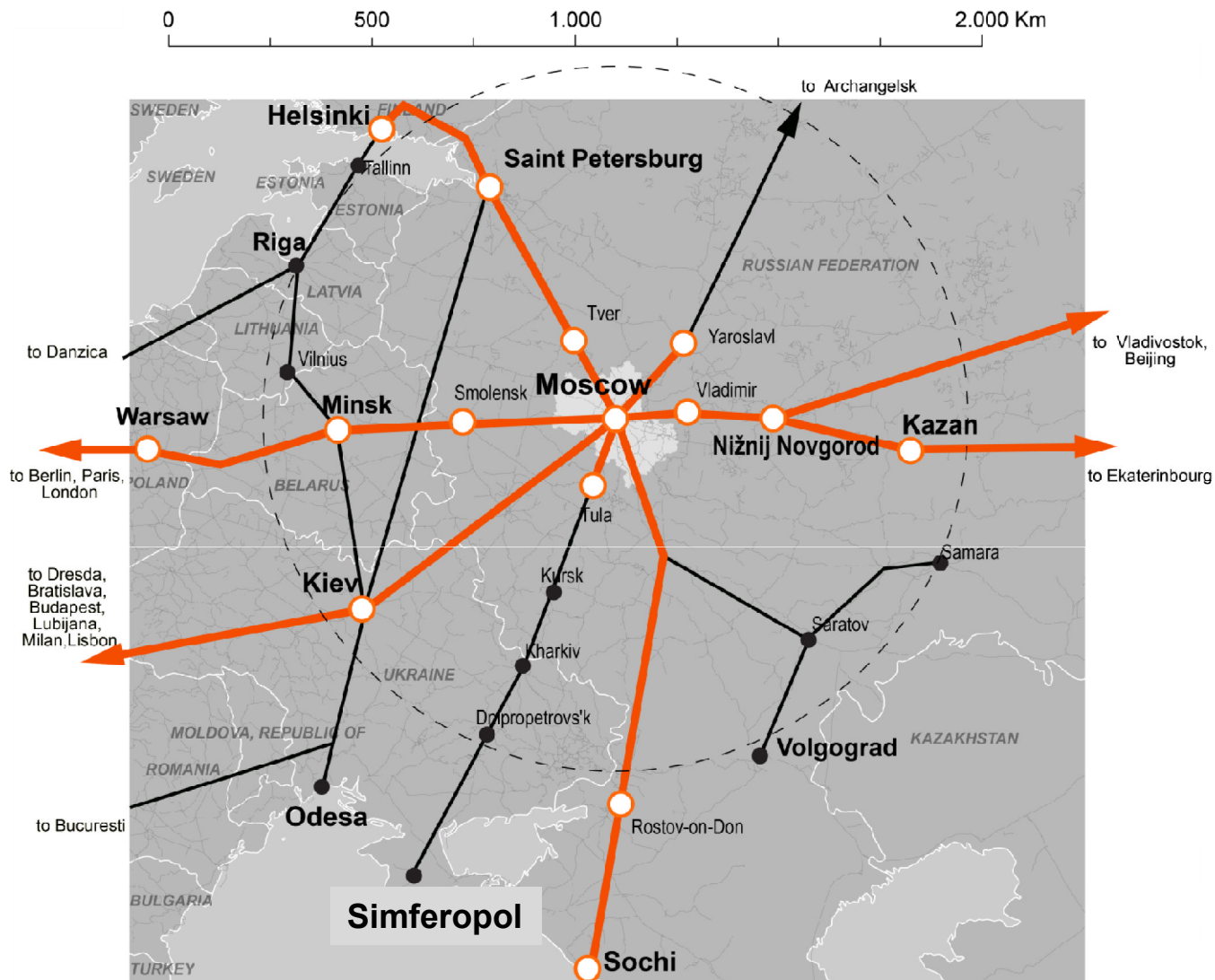
# 1. High speed rail as planned today

(Parallel HSR track under construction)



## 2. High speed rail station and airport connection today

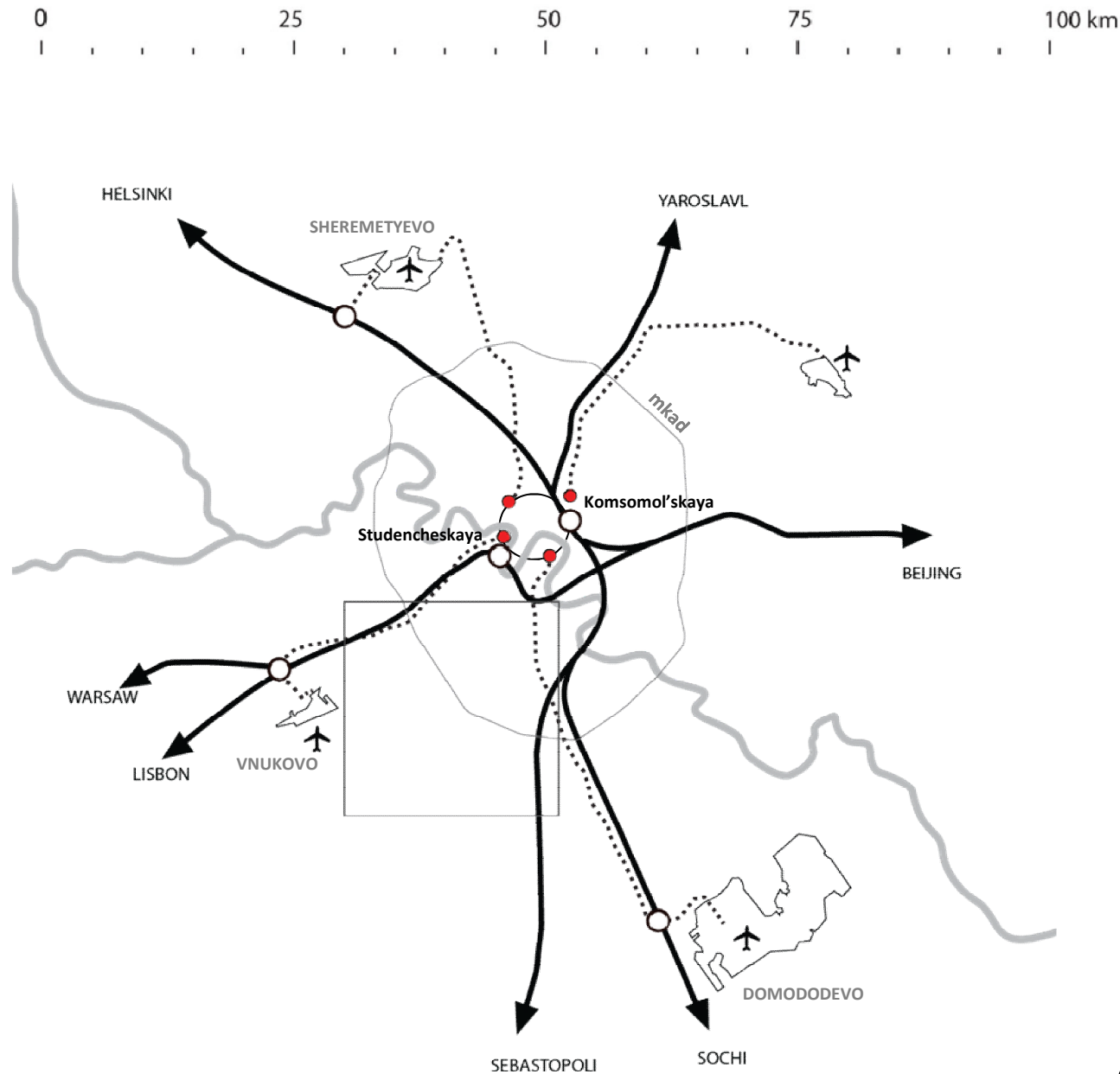




### 3. High speed rail potential.

Moscow could be strategically connected with Europe (Helsinki in the north, Berlin in the west). HSR would also serve the main regional capitals close to Moscow (Proposal by Secchi-Vigano).

## 4. Potential links with urban rail.



The line from Berlin merges with the one from Kiev before entering the city, then using the south railway ring to reach the north-south bypass that crosses the city.

Two new passing stations could improve the north south/east-west passage : one station in the south-west (Studencheskaya close to the CBD Moskva City), the second in the center of the city at Komsomolskaya.

(proposal by Secchi- Vigano)

## 5. Regional rail rehabilitation potential.

Improvement of existing rails for regional passenger integration requires an adaptive reuse of industrial rail and railway ring, and good frequencies.

(proposal Secchi- Vigano)

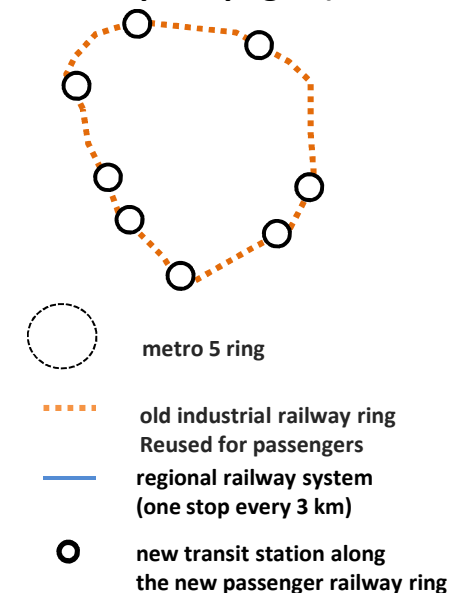






## 6. Regional rail in connection with Metro.

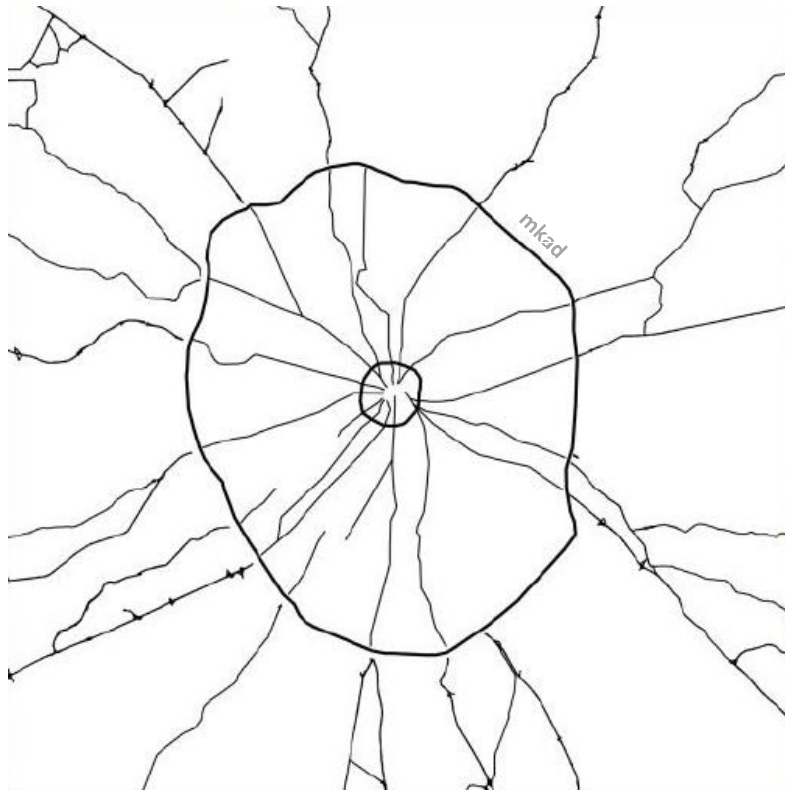
Moscow railway stations should not be end-stations. Trains could connect different urban areas without transfers through the city center. New interchange stations could connect the ring stations with the radial metro going out of Moscow. (see hereafter Moscow master plan page 9).



## 7. Highways

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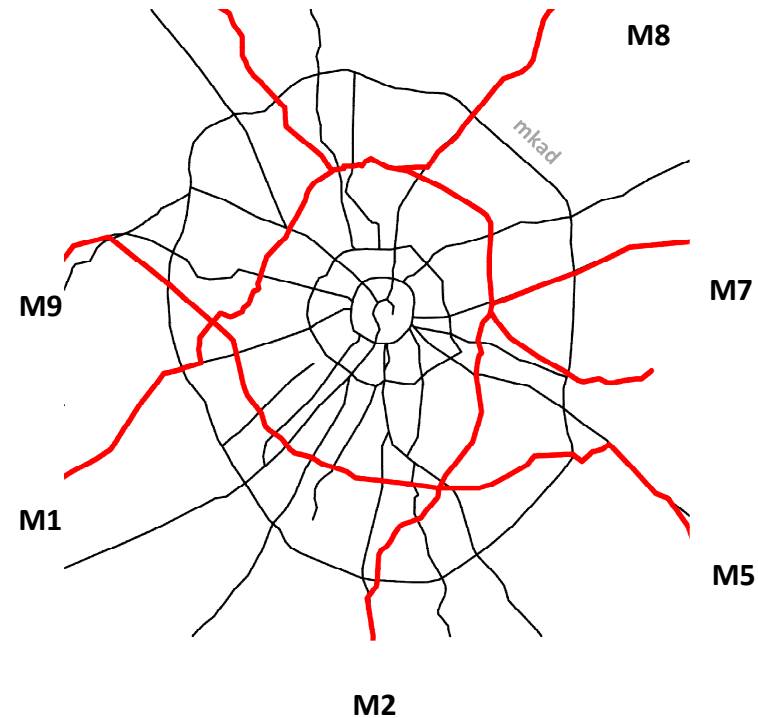
Existing road system with  
MKAD ring road.



Existing situation

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A new highway ring into the city is planned but  
only 10 out of 70 km have been built (at a cost  
of 2bn US \$ and doubts are voiced about its  
necessity.



Moscow city masterplan