

# Olympic Games transitions and Host Cities long-term development

**Stefano Manelli**

**(contributions from Prof. Hon. Philippe Bovy)**

**«Turning Cities into Mega-Event Stages» Conference  
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Event Transport &  
Mobility Solutions

[www.citec.ch](http://www.citec.ch)



# Stefano Manelli



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- **Head of Transport at Milano Cortina 2026**
- **Transport Engineer from EPFL Swiss Federal Institute of Technology of Lausanne (Switzerland) and Politecnico di Torino (Italy)**
- Transport advisor for Paris 2024 Olympics Organising Committee
- IOC Transport Advisor for Evaluation Commission (2020, 2022) and expert on FIFA World Cup 2026 Evaluation
- Transport consultant for Sochi 2014, FIFA World Cup 2018, Glasgow European Championships 2018, Olympic bids 2018, 2022, 2024 and 2026
- Mobility Manager for UEFA EURO 2008, 2012, 2016 and 2020 (Rome) and Champions League Final (2016, 2018)
- Transport Operations Manager for Torino 2006 Winter Olympic Games
- UITP Knowledge Partner and lecturer at various institutes (HES-SO Geneva, AISTS, PoliTO, etc.)



# Citec Mobility Solutions

## Large Events' Planning and Operations

REFERENCES

We move forward  
together with  
confidence

> PROJECTS REFERENCES : STRATEGY > PLANNING > OPERATIONS



SERVICES FOR EVENTS

# Turnkey Mobility & Events Transport Solutions

## STRATEGY

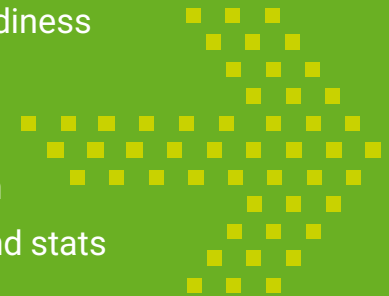
- > Bidding phase
- > Global concept
- > Consultancy
- > Demand vs. capacity analysis of public Transportation
- > Liaison with public authorities and local city councils

## PLANNING

- > Venue design
- > Tender development
- > Fleet management
- > Parking requirement
- > Vehicle access
- > Event signage
- > Maps and plans

## OPERATIONS

- > Recruitment
- > Team readiness
- > Build up
- > Delivery
- > Lay down
- > Debrief and stats





# Turning Cities into Mega-Event Stages

**Mega Events** require a specific organisation of transport-accessibility-security, **implying major changes to the functioning of the host territory** for a short period of time.

## Mega events challenges

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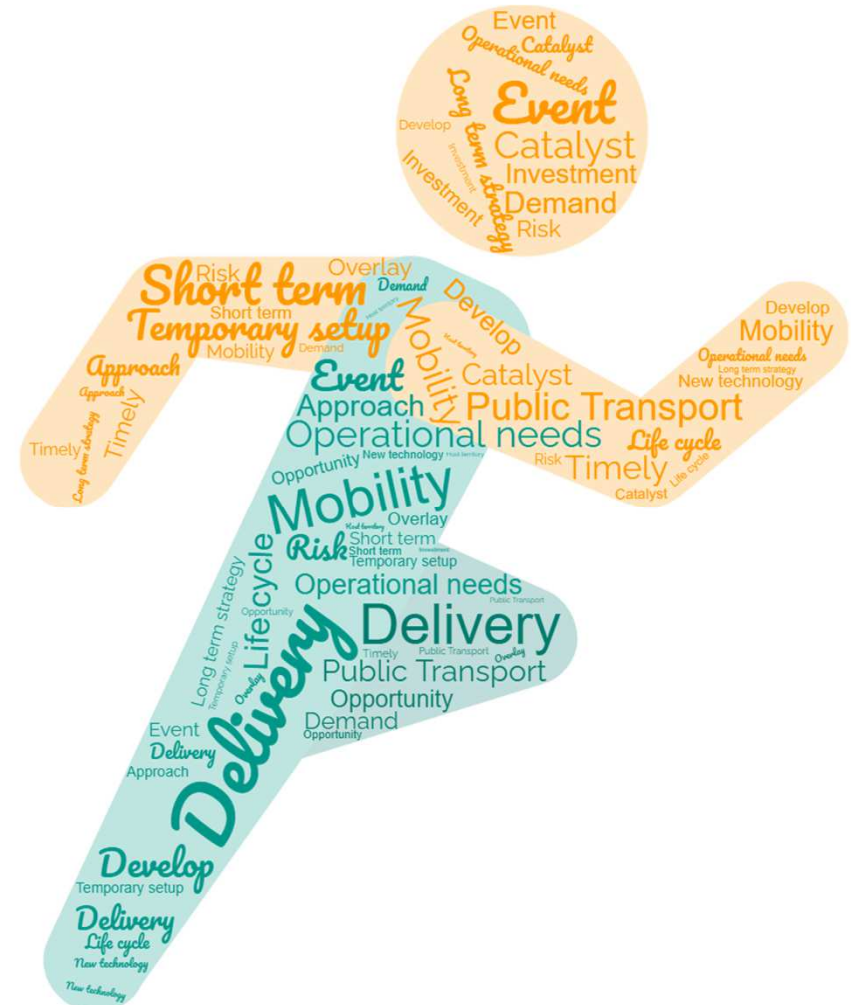
- Worldwide Media Coverage
- Size and Levels of service of the event(s)
- Risk Management and Reliability
- Interactions with Security, Accommodation, Ticketing (among others)
- Difficulty in predicting the transport demand
- Host Territory expectation
- [...]





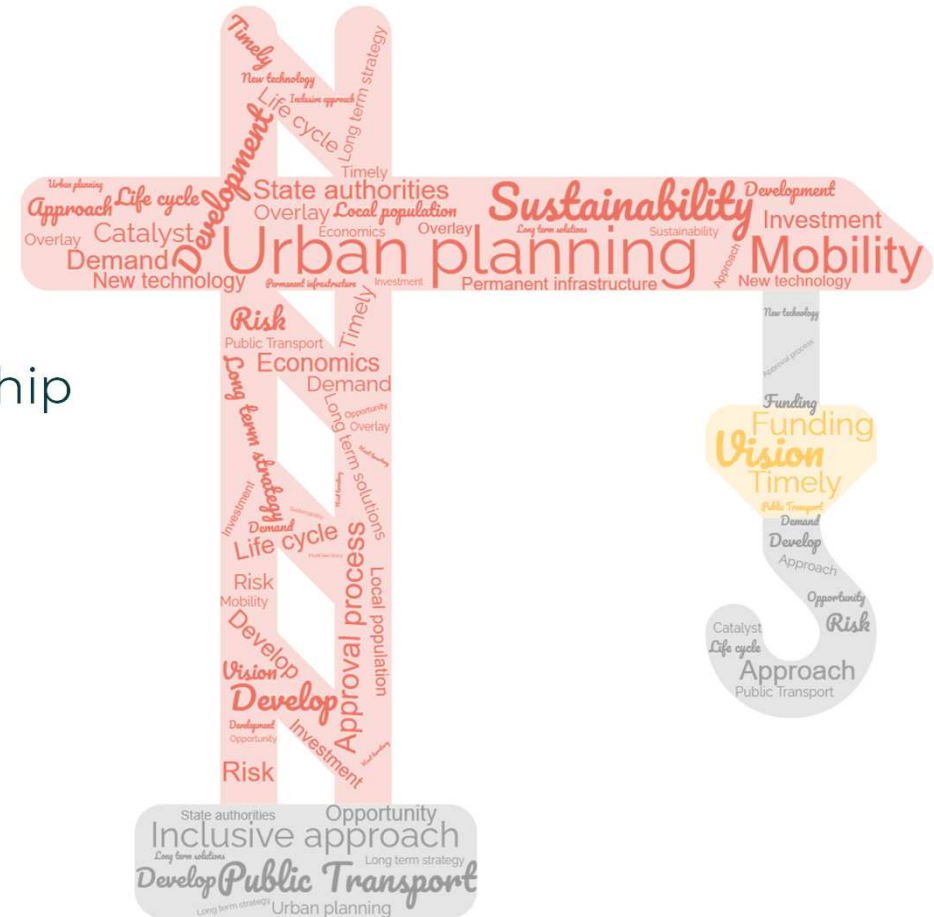
## Planning events' mobility is oriented to

- Short life-cycle (5 to 10 years)
- Short term pragmatic approach
- Very specific stakeholders' populations
- Multiple delivery partners and stakeholders
- Specialised demand around the event
- Focus on operational needs
- Timely delivery
- [...]



# Planning long term mobility is oriented to

- Vision of a territory
- Long term planning and programming
- Life-cycle of infrastructures (30-50 years)
- Scattered governance and financing ownership
- Multidisciplinary and inclusive approach
- Local populations needs
- Sustainability
- [...]

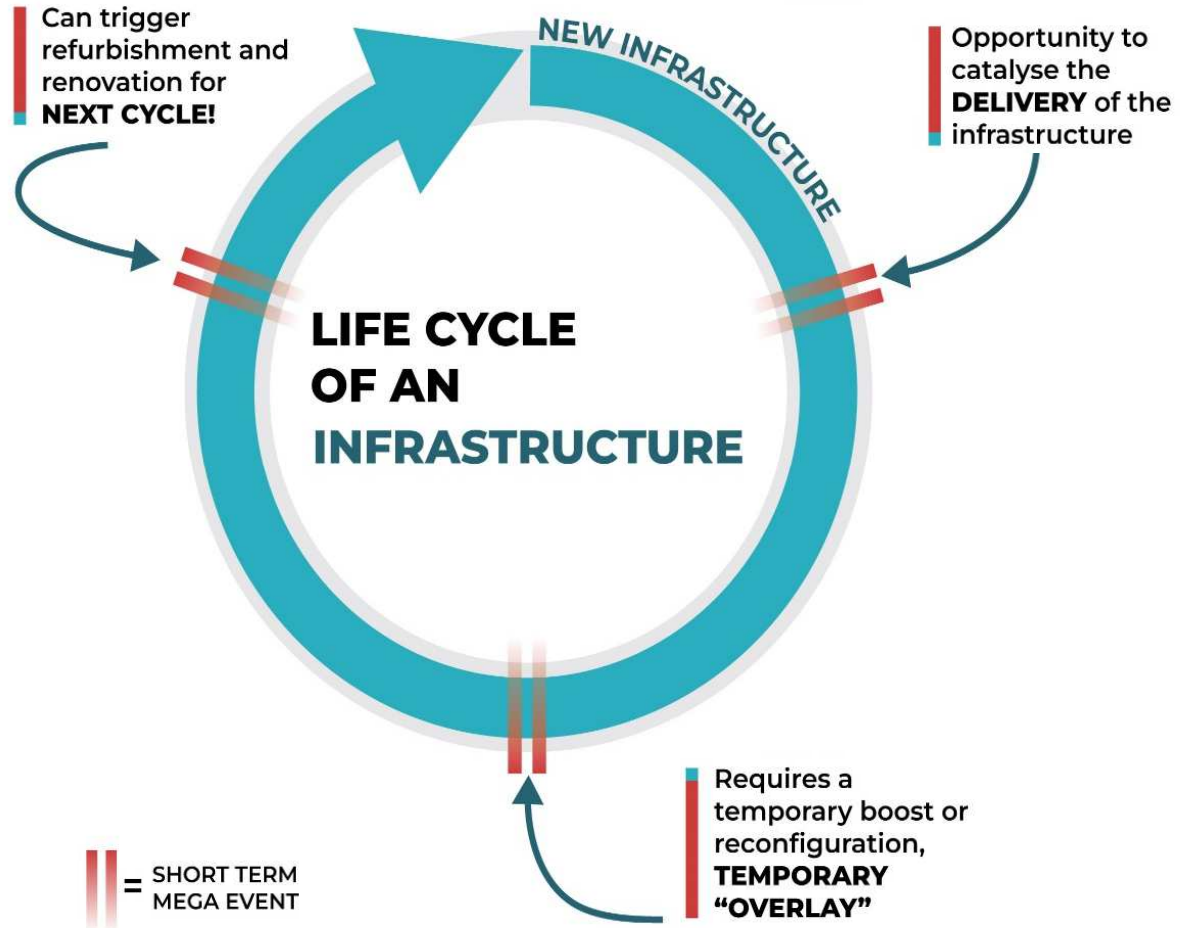




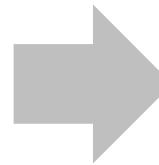
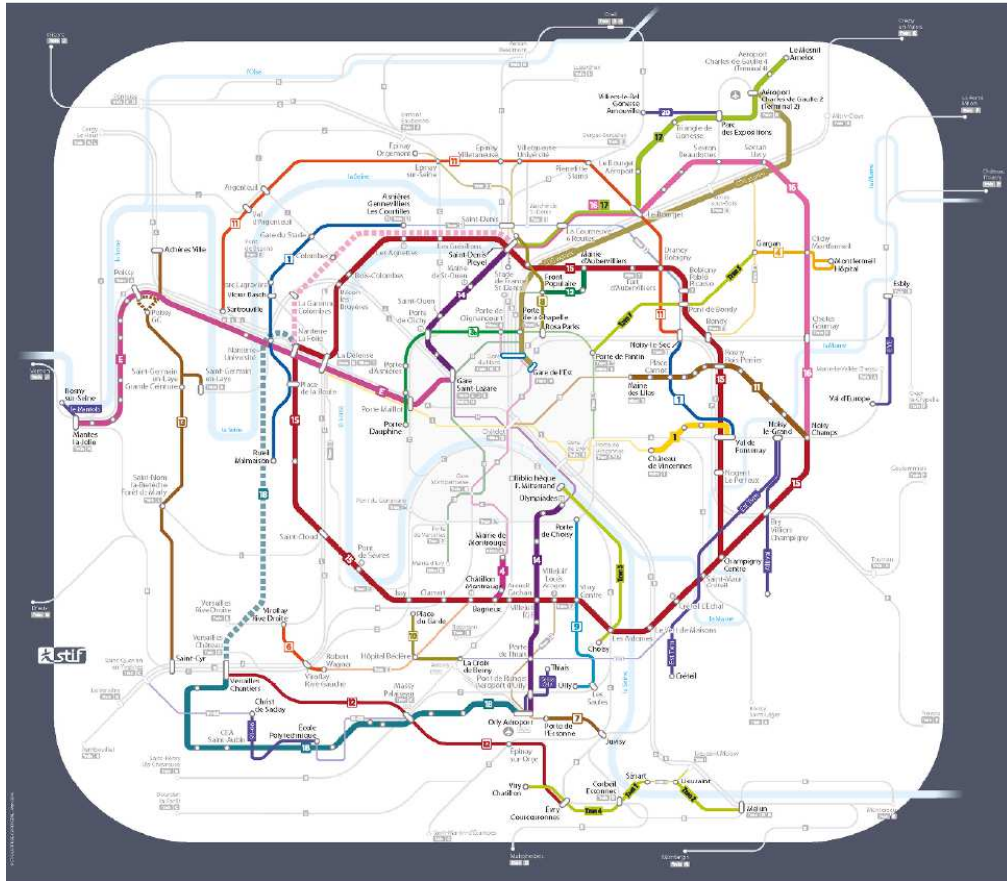
*Credit: Paris 2024*

Events can be catalysts to long-term planned  
developments of a territory

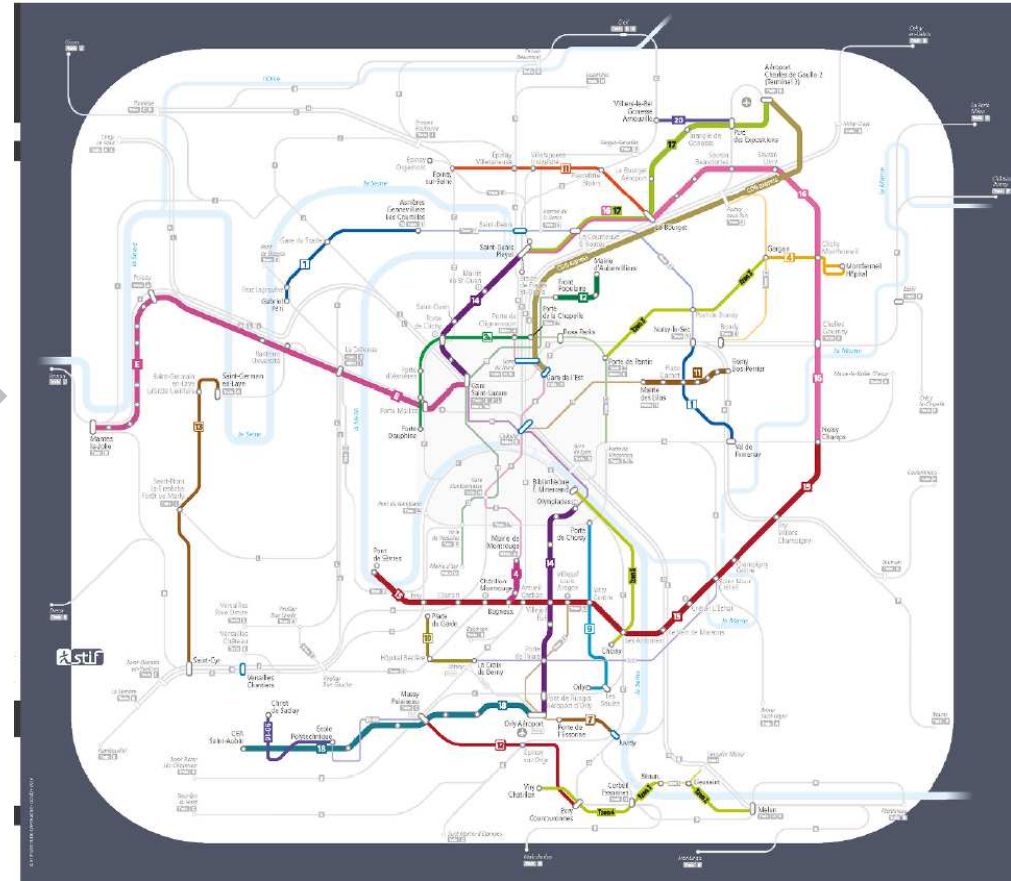
# Infrastructure life-cycle and mega events



## Public transport infrastructure development as per long term development strategy of the Host City (Grand Paris 2030)



## Public transport infrastructure development as included into the Candidature File (Grand Paris – Projection 2024)



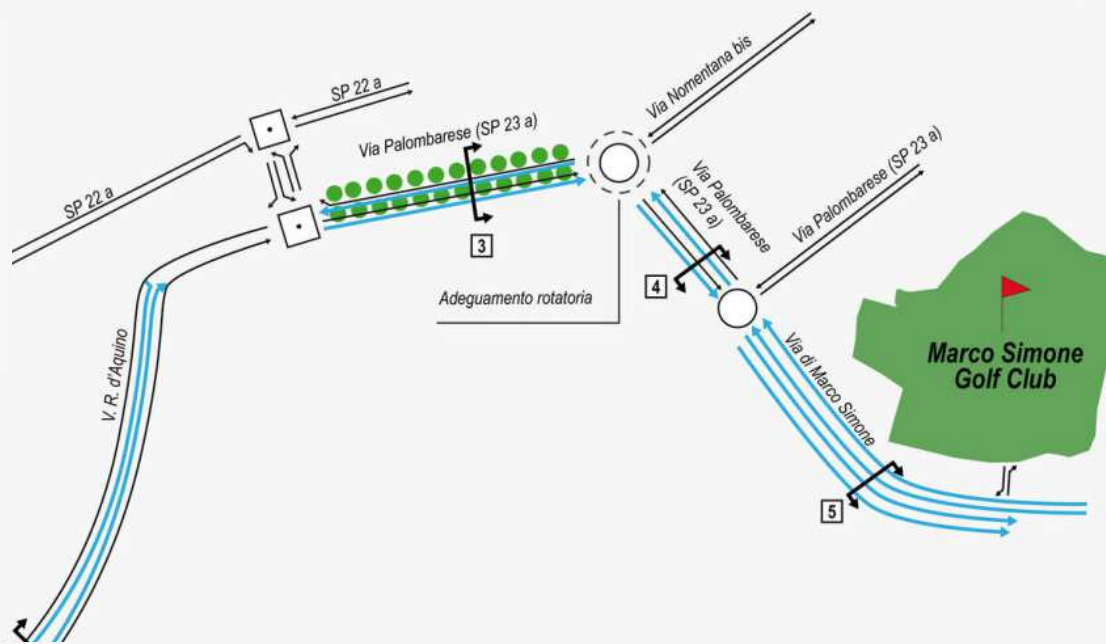
# Temporary setup of a to-be-built permanent infrastructure

## Legenda

- Rotatoria
- Incrocio non semaforizzato
- ◻ Incrocio semaforizzato
- ▣ Sezione
- Flusso veicolare
- Flusso veicolare Ryder Cup
- Sottopasso viario

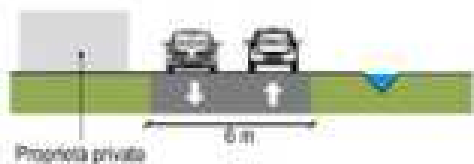
V.1 - 01.12.2020

Grafica Citec 2019



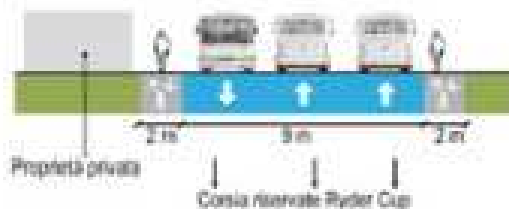
## BEFORE

- ⚠ Pericolo visibilità ridotta
- ⚠ Pericolo assenza percorsi pedonali



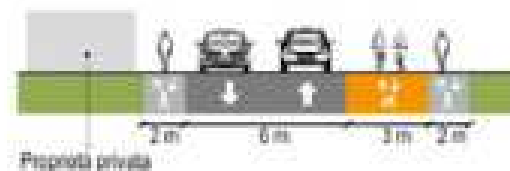
## DURING

- ✅ 3 Corsie riservate Ryder Cup 2022
- ✅ Percorsi pedonali (Staff e ospiti)



## AFTER

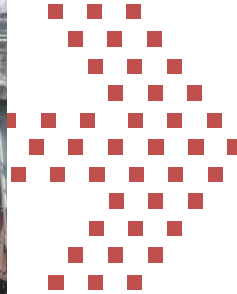
- ✅ Corsie a norma
- ✅ Percorso pedonale
- ✅ Percorso ciclabile



## Permanent vs. Temporary measures



*Olympic route and rail Sochi 2014 (Citec)*



*Olympic lane in Beijing08 (Bovy)*

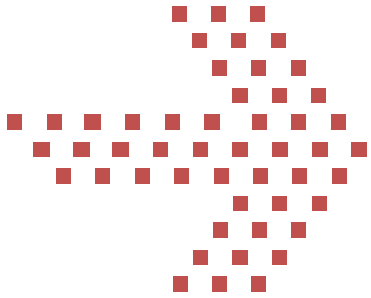




# Types of Mega Events

## Various types of Mega Events

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### **Ticketing structure:**

- Pre-determined capacity = maximum amount of spectators (e.g. Football)
- Open ticketing = indetermined amount of spectators (e.g. Tour de France)

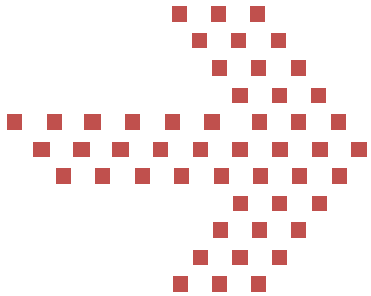
### **Events' structure:**

- Mono-venue event : most frequent situation (e.g. Expo)
- Multi-venue event : series of venues operating in parallel (e.g. Olympics)

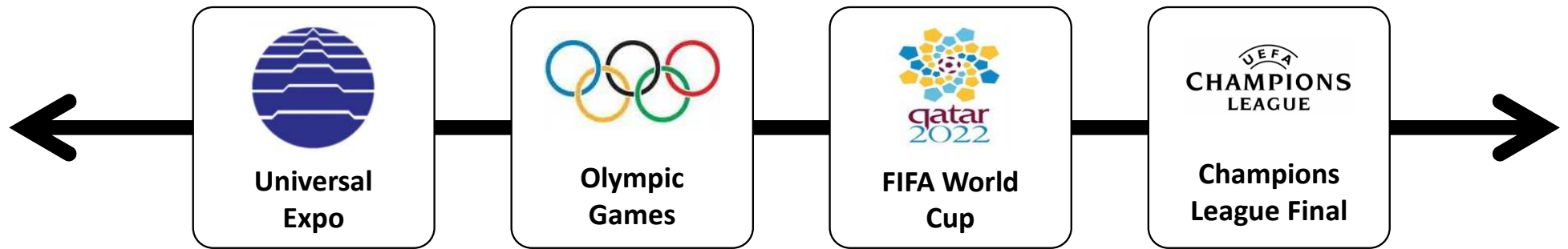
### **Events' duration:**

- Day events: Limited to one day (UCLF...)
- Short-term events: Few days/weeks (FIFA World Cup, Olympics ...)
- Middle-term events: Longer duration up to few months (Expo...)

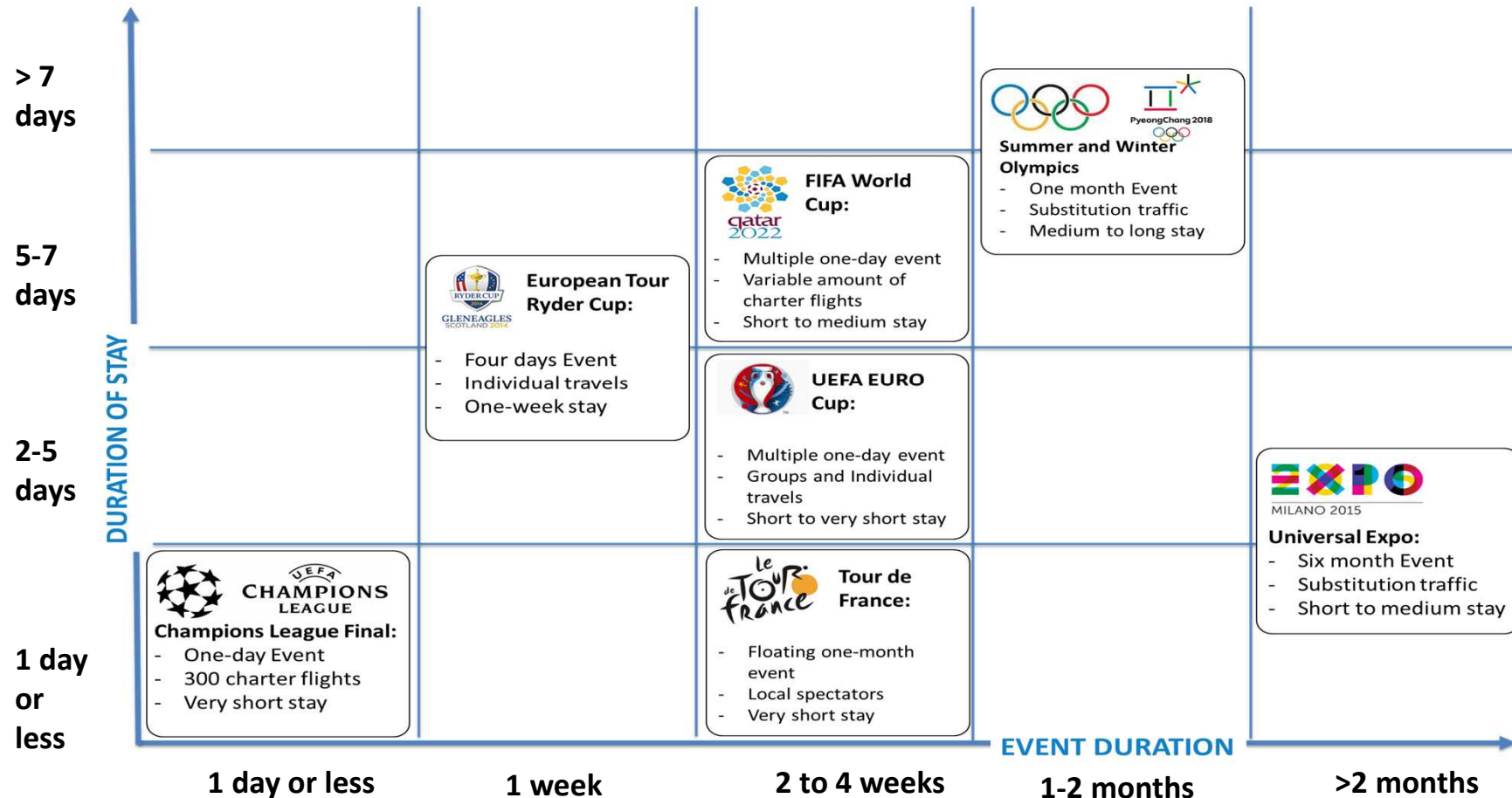
## Various types of Mega Events



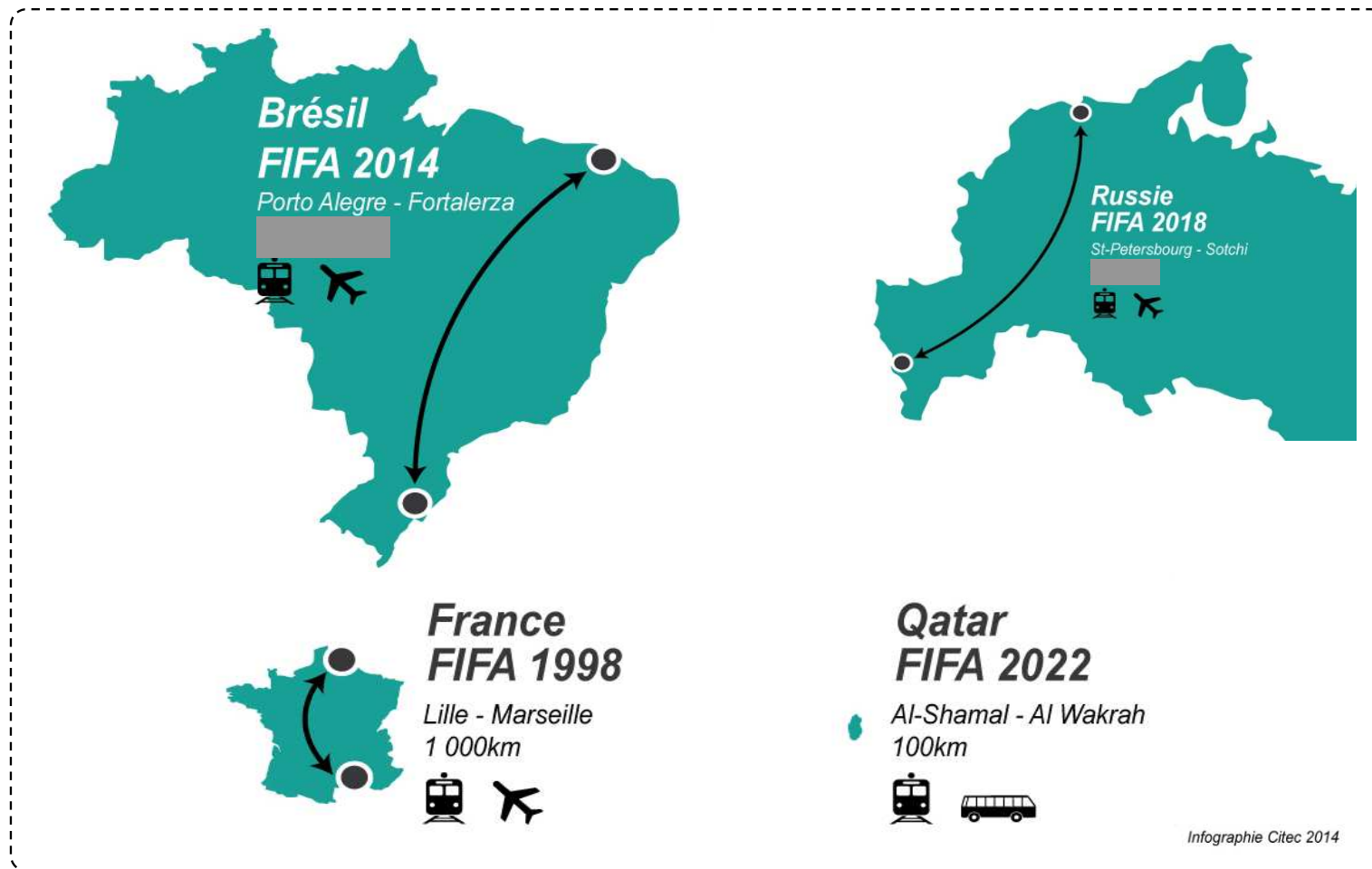
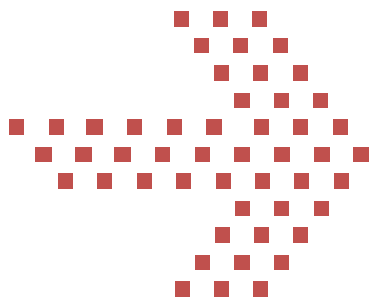
- From 6 months to 1 single day
- From stable to extremely short pressure on transport system
- Medium to short or very short stay accommodation
- Difficult to compare



# Various types of Mega Events

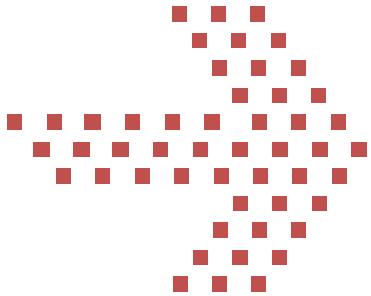


# Mega Events: Same event, different geographical challenges



## Host Territory, mobility and transport

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### **Mobility and Transport are:**

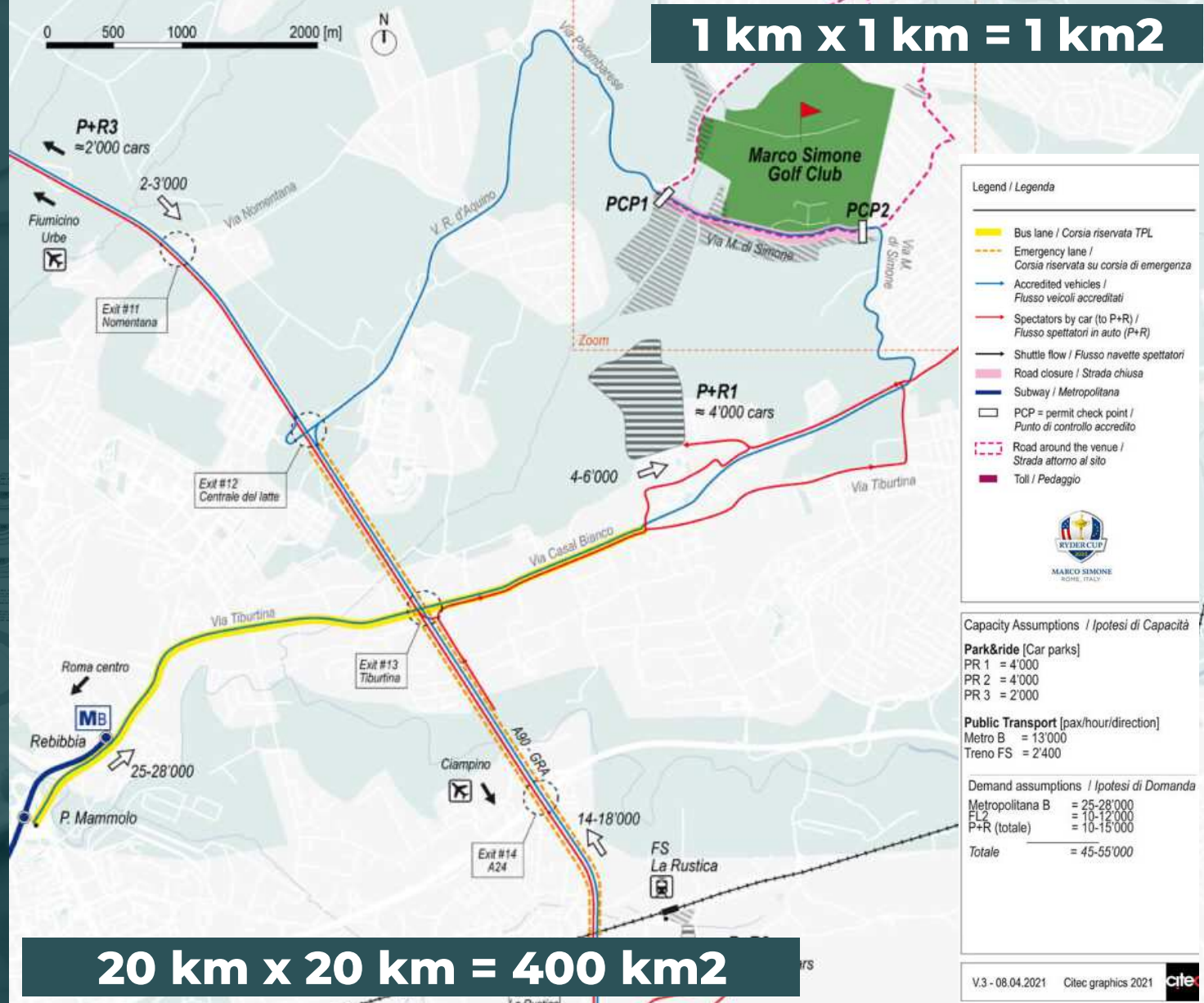
- First and last impression of the Event (and the host city)
- Mobility could improve reliability, safety and security of the event
- Mobility could contribute to the Host City promotion and Event value

### **Provided it is planned according to strategic objectives:**

- Effective, safe and reliable transport services to clients
- Minimize the impact of the Event on the host territory
- Maximise the legacy of the Event and promote a more sustainable mobility

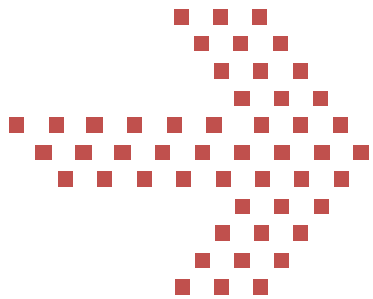
RYDER CUP 2023  
Marco Simone

# Mobility plan impacts on large urban area!



**20 km x 20 km = 400 km<sup>2</sup>**

# Olympic Games complexity



## *Olympic Games >28-32 sports / >205 nations matrix*

*International Sport Federations and NOC countries  
A complex >28 x >205 operational matrix*

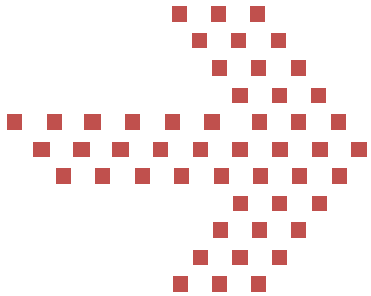
<b>IF</b>
28 SPORTS MANAGED BY 28 <b>IF</b> -INTERNATIONAL FEDERATIONS PART OF THE GAMES PROGRAM
FULL RESPONSABILITY FOR ALL TECHNICAL + LOGISTICAL OPERATIONS OF EACH SPORT BY EACH <b>IF</b>

<b>NOC</b>	<b>205 NOC-NATIONAL OLYMPIC COMMITTEES RESPONSIBLE FOR SELECTING AND MANAGING 205 NATIONAL TEAMS DELEGATED TO THE OLYMPIC GAMES</b>
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# Olympic Games complexity



## 2. Games growth and main transport task.

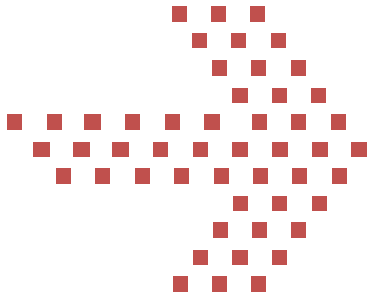
### Athens 1896 to Rio 2016 Olympic Summer Games key indicators

	1.Nb NOC.	2.Nb Events	3.Nb Comp.	4.% Female	5.Nb Media	6.Nb Volunt	7.Nb Tickets	8.Nb TV.vw	9.Total TV rights
<b>1896 ATHENS</b>	14	43	240	0					
1924 Paris	44	126	3100	4					
1936 Berlin	49	129	4000	8					
1960 Rome	83	150	5300	12					
<b>1972 MUNICH</b>	<b>121</b>	<b>195</b>	<b>7100</b>	<b>15</b>					
<b>1984 LOS ANGELES</b>	<b>140</b>	<b>221</b>	<b>6800</b>	<b>23</b>	<b>9200</b>	<b>28000</b>	<b>5.7</b>	<b>2.5</b>	<b>285</b>
1988 Seoul	159	237	8500	26	11300	27000	3.3	---	400
<b>1992 BARCELONA</b>	<b>169</b>	<b>257</b>	<b>9400</b>	<b>29</b>	<b>13100</b>	<b>34000</b>	<b>3.0</b>	<b>---</b>	<b>835</b>
1996 Atlanta	197	271	10400	34	15100	47000	8.3	---	900
<b>2000 SYDNEY</b>	<b>200</b>	<b>300</b>	<b>10600</b>	<b>38</b>	<b>16000</b>	<b>47000</b>	<b>6.7</b>	<b>3.7</b>	<b>1330</b>
2004 Athens	202	301	10600	42	21500	45000	3.6	3.9	1495
<b>2008 BEIJING</b>	<b>204</b>	<b>302</b>	<b>10950</b>	<b>43</b>	<b>24600</b>	<b>70000</b>	<b>6.5</b>	<b>3.7</b>	<b>1730</b>
2012 London	204	302	10575	44	24275	70000	8.0	3.9	2600
<b>2016 RIO (10 est.)</b>	<b>206</b>	<b>306</b>	<b>11305</b>	<b>45</b>	<b>25700</b>	<b>27000</b>	<b>6.1</b>	<b>4.0</b>	<b>--?--</b>
<b>1984/2016 growth (%)*</b>	<b>45</b>	<b>35</b>	<b>65</b>	<b>95</b>	<b>175</b>	<b>0</b>	<b>5</b>	<b>60</b>	<b>--?--</b>

**Legend** 1. Number of NOC – nations / 2. Number of competition events / 3. Number of athletes ( $\pm 50$ )  
 4. Percentage female athletes ( $\pm 1\%$ ) / 5. Number accredited medias, press and broadcasters ( $\pm 100$ )  
 6. Number of volunteers ( $\pm 1000$ ) / 7. Number of spectator tickets sold ( $\pm 0,1$ million)  
 8. Number world TV viewers ( $\pm 0,1$ billion) / 9. Total TV rights ( $\pm 5$  mio US\$) / 10. Dec 2016 estimates

\*LA-1984 to RIO-2016 key indicators growth over 9 Summer Games or 32 years (rounded  $\pm 5\%$ )

## Olympic Games complexity

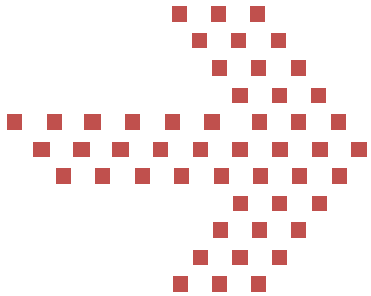


### *Summer Olympic Games current numbers*

**>28 sport competition programs running simultaneously**  
with own schedules during 16 days—**No 2 days the same**

- **310\* events (> 700 sessions)** during 16 days
- **11'500-12'000\* athletes**, 5'000\* accredited coaches and support personnel from > 205 countries
- **5'000 Olympic officials and VIP**
- **>25'000 accredited media** (TV and radio broadcasting, written press, photographers and new medias)
- **>30'000 sponsor guests**
- **150'000-200'000 workforce** including more than 70'000 volunteers
- **6 to 9 million ticketed spectators**

## Olympic Games complexity



Olympic Games became too complex and costly:

- Existing structures (venues) can be used but requiring bold temporary upgrades, impacting the surroundings and the games services operations
- No single territory can host the Games in Summer (Paris + Marseille + Tahiti + ... ) and Winter (Milano + Valtellina + Cortina + ...)
- As a result, interest in organizing the Games reduced: IOC reacted by enhancing the message about “sustainable Games”

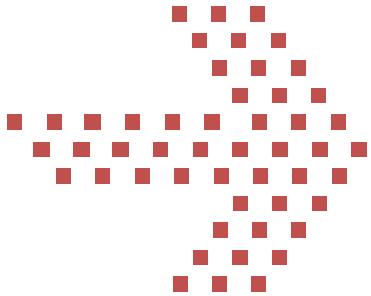


# IOC Agenda 2020 and New Norm

The Event's concept shall adapt to the territory and its long-term development strategy and not viceversa

(IOC New Norm)

## IOC Agenda 2020: Strategic roadmap for the future

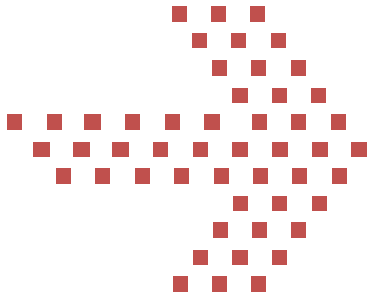


Forty (40) recommendations, pieces of a puzzle to guarantee the uniqueness of the Olympic Games and reinforce the image of sport in society

- A new philosophy that invites potential candidates in an accompanying process aimed at highlighting long-term sporting, economic, social and environmental needs.
- A reduction in application costs, reducing the number of meetings and providing a contribution from the IOC.
- Switching from a sports-focused program to an event-focused program.
- Etc.

## IOC New Norm: reforming act for the Olympic Games organisation

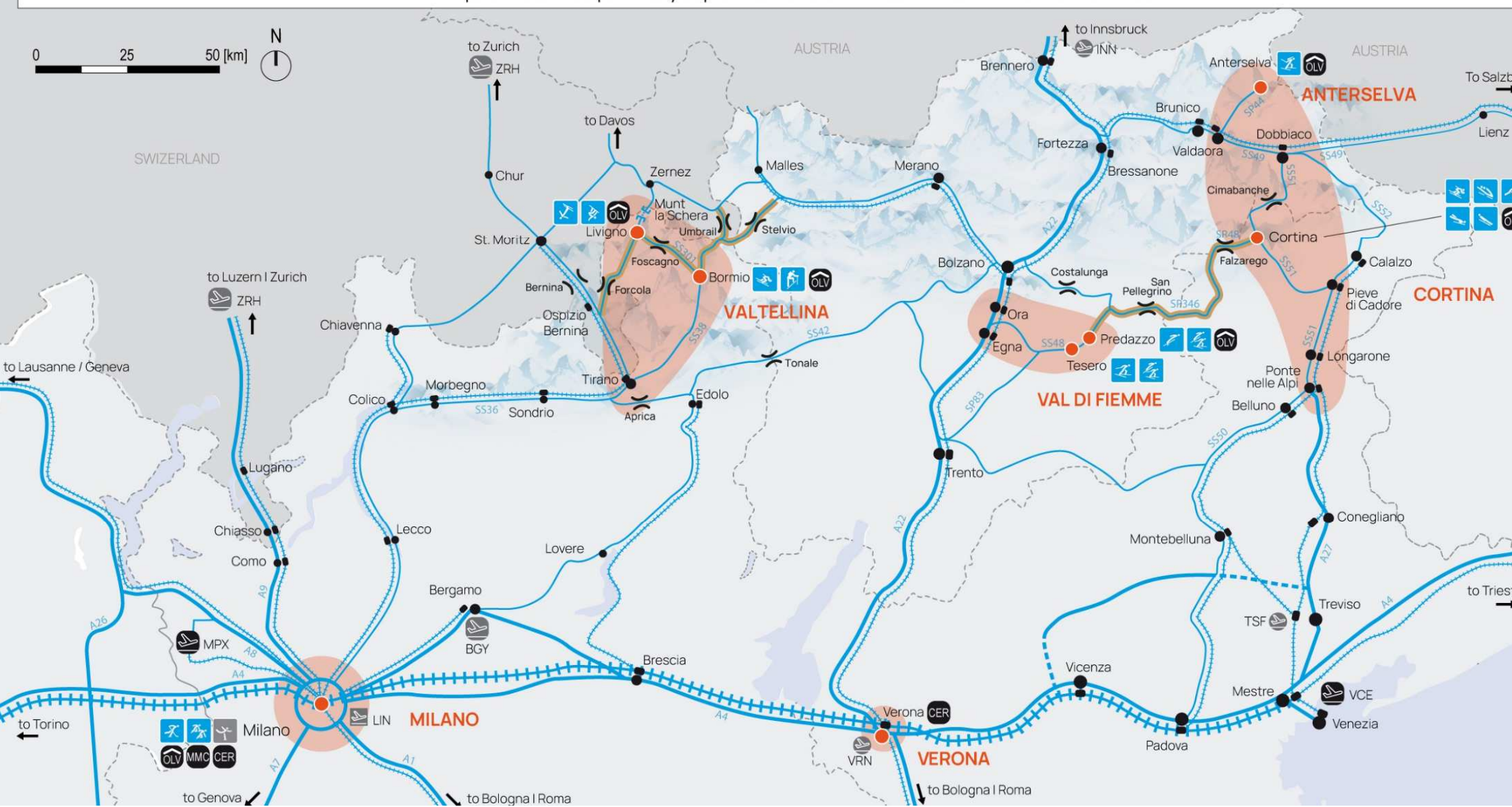
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The "New Norm" envisages 118 different reforms in line with Agenda 2020 recommendations and envisages a new organization of the Games

- Greater flexibility for games to adapt to long-term development of the territory and not the other way around
- It includes 100+ measures aimed at reducing the organizational costs of the Games.
- Etc.

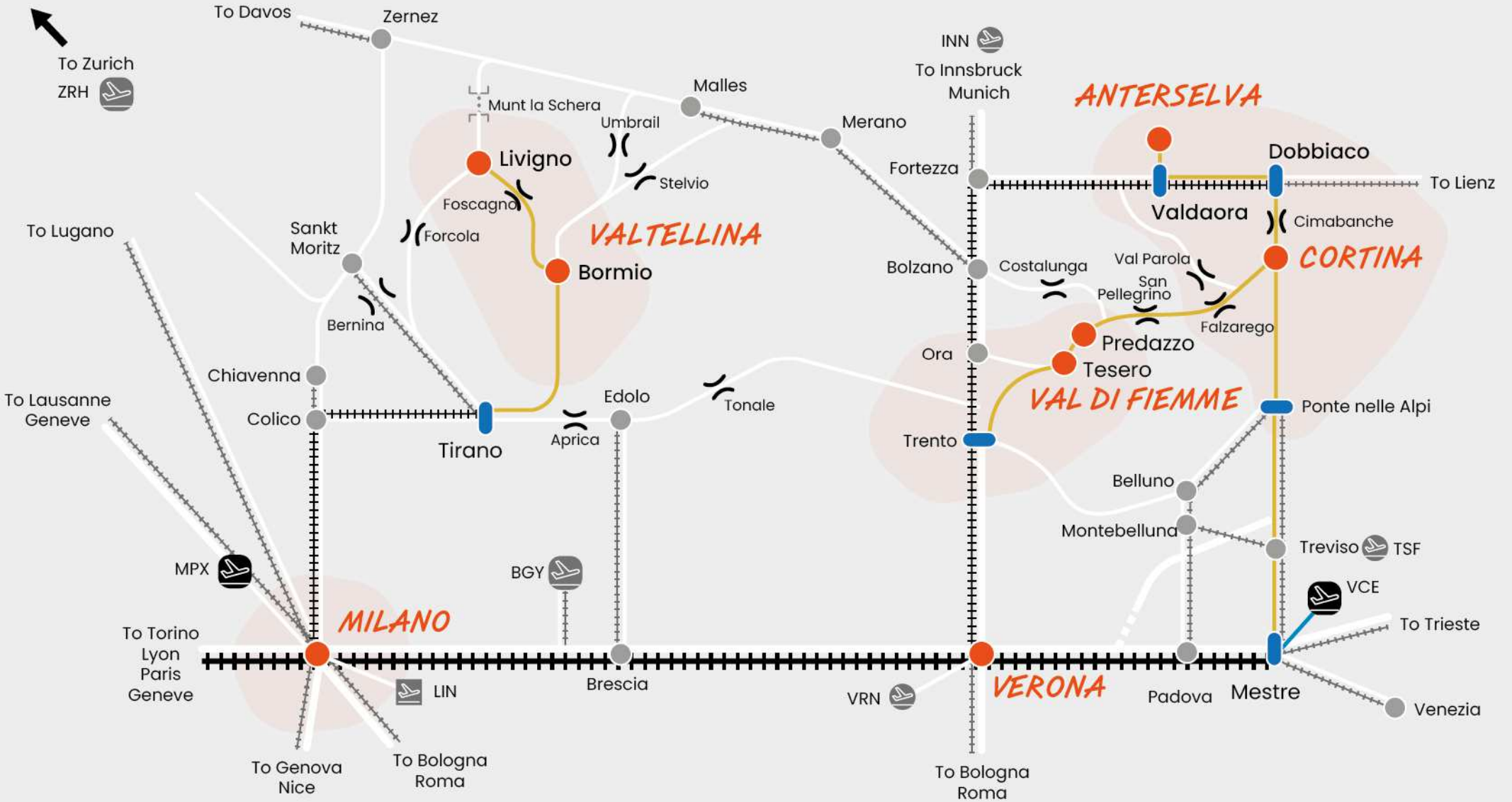
# Transport Concept - Olympic Winter Games Milano Cortina 2026



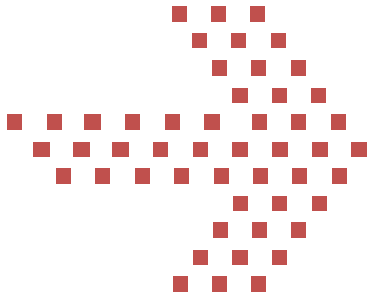


# Olympic Route Network - Olympic Winter Games Milano Cortina 2026

TRA - 09.02.2024



## Milano Cortina 2026: a «New Norm» product



The concept around Milano Cortina 2026 is based on:

- Existing sport venues and temporary facilities where needed
- Investments on acceleration of planned long-term infrastructure
- Etc.

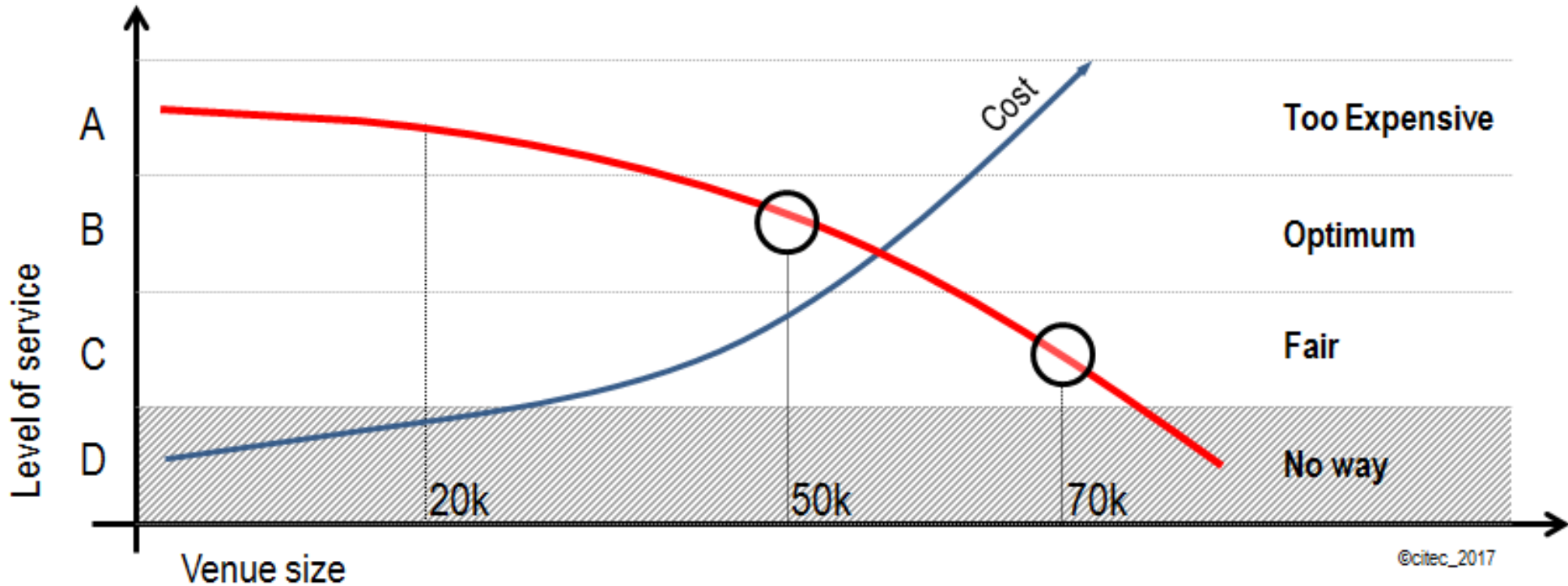
Implication on the territory of the Games:

- Legacy opportunities
- Much higher complexity of transport operations and services in general
- Etc.

# Level of service (LoS) : crucial decision approaching Mega Events



Qualitative correlation between size, costs and level of service of an event transport system



EXAMPLE

# Temporary use of available surfaces

Olympic Games Tokyo 2020  
Bus temporary depot



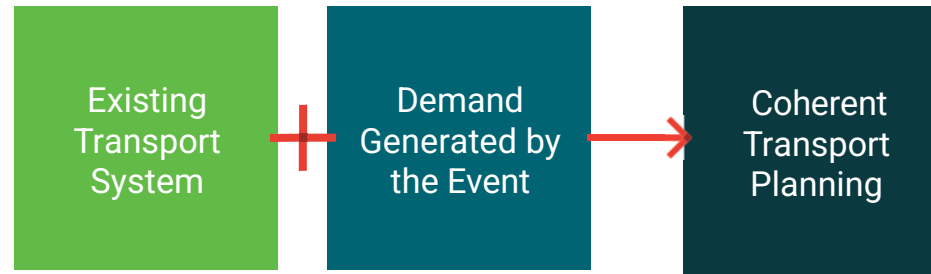


# Hosting a Mega Event

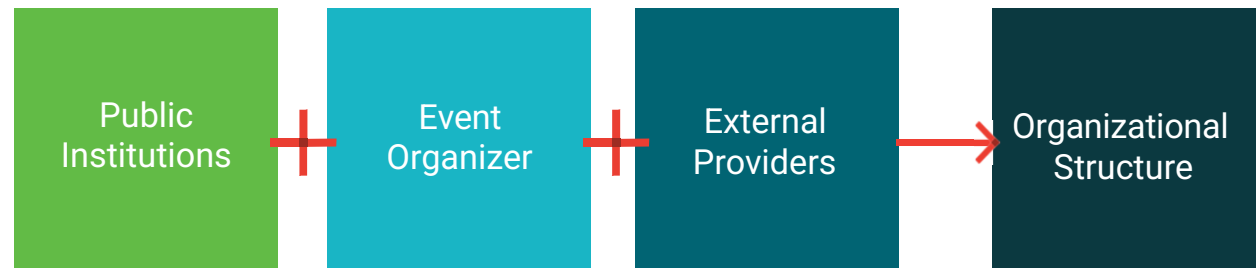
EVENT MOBILITY

# Organiser & Hosting Territory

## DEFINE A SOLID GLOBAL MOBILITY CONCEPT

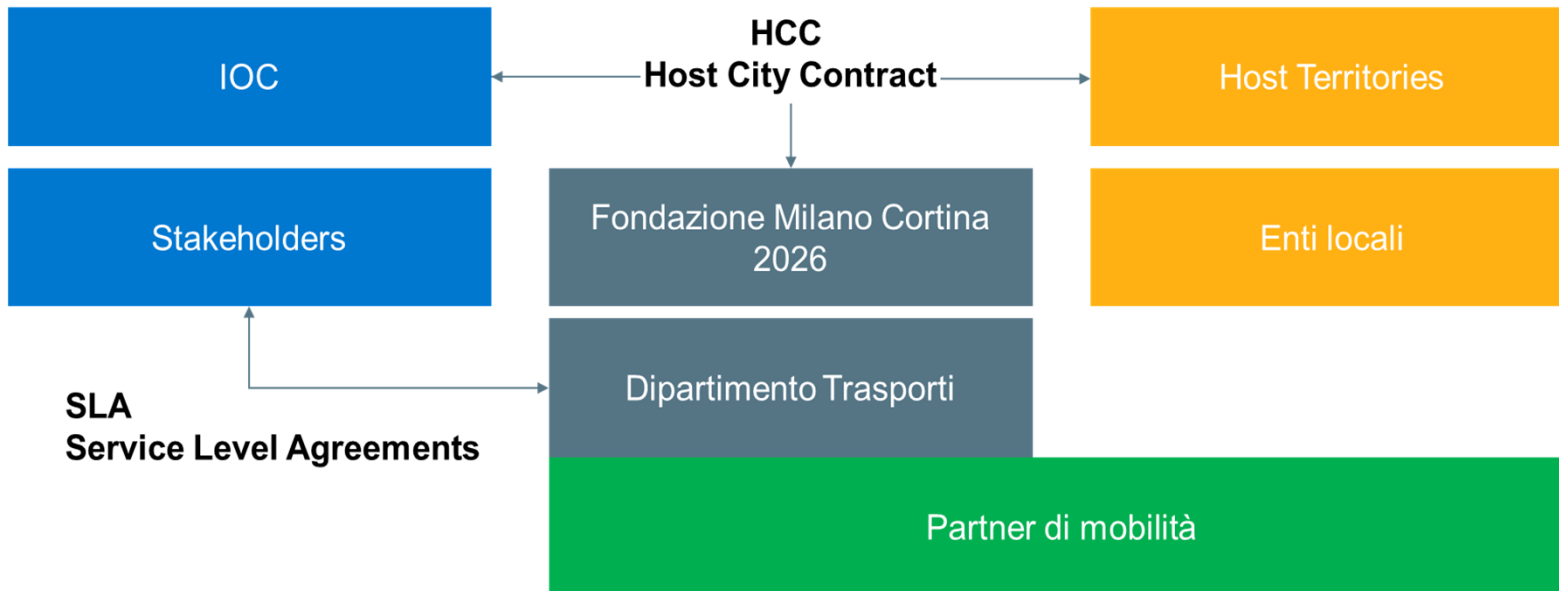


## LIAISON WITH LOCAL AUTHORITIES

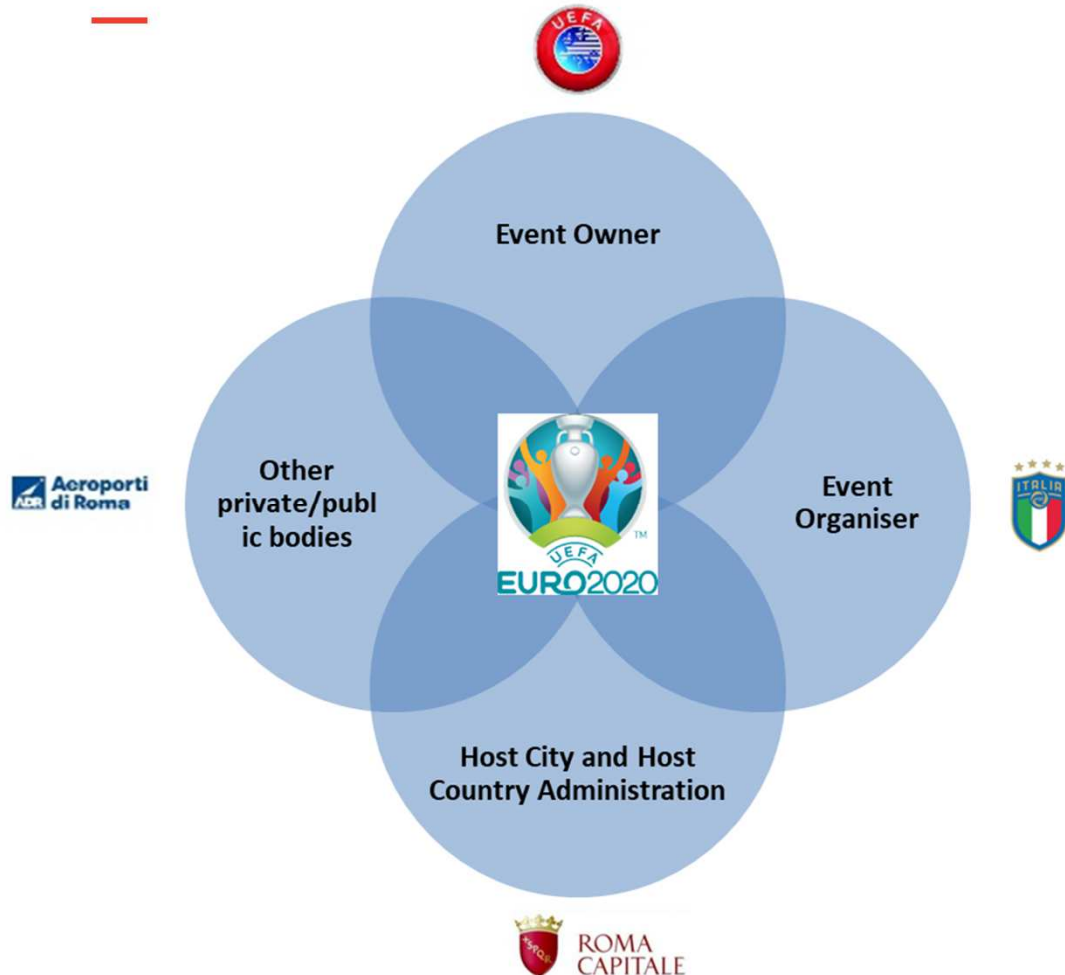


# Contractual implication: Milano Cortina 2026 transport governance

- Three levels governance: National, Regional, Local
- Global Partners and National Partners
- Clear split of responsibilities, budget and guarantees needed



## Bold project management and integration with local bodies

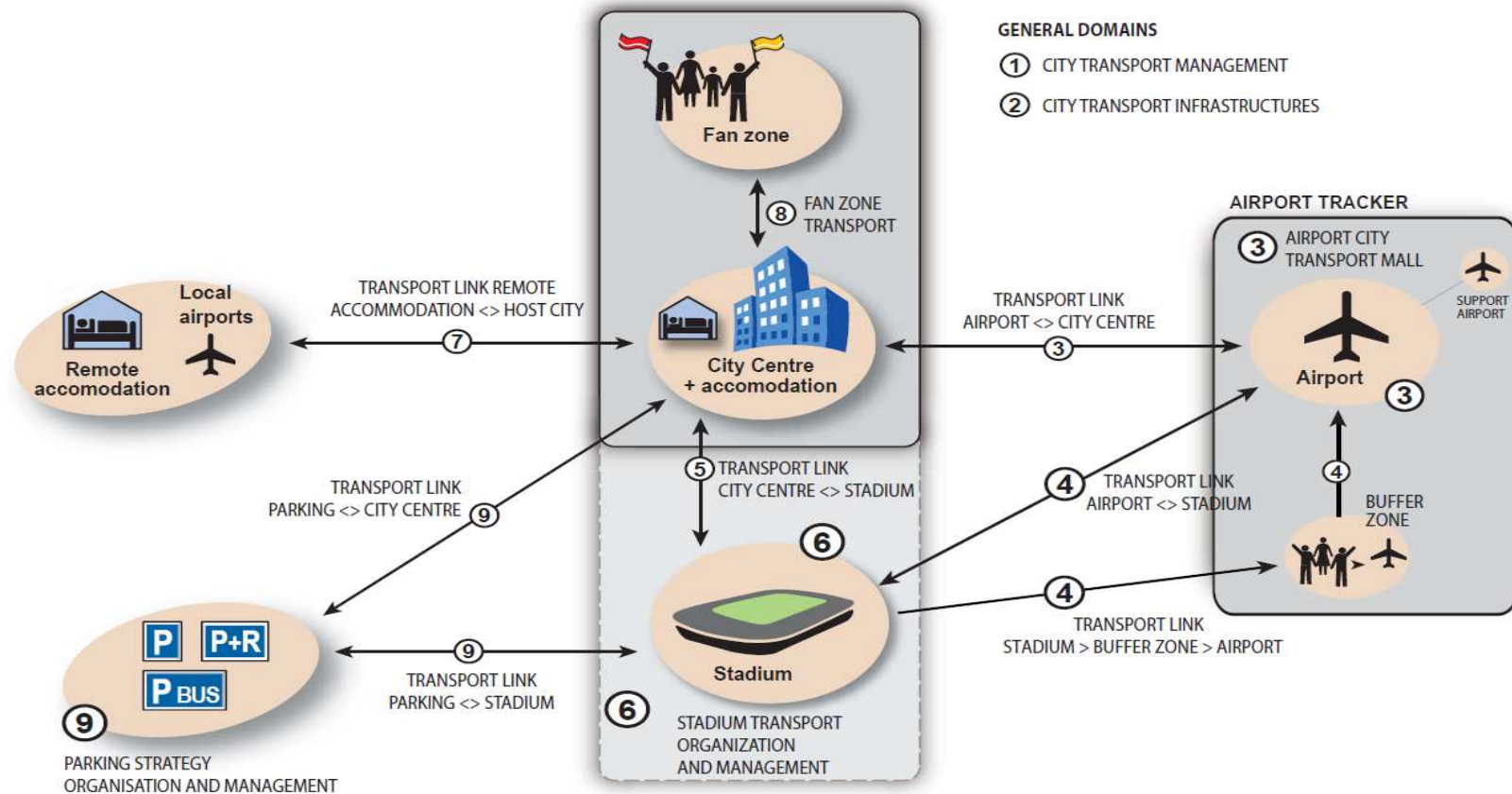


- Event Owner: setting requirements for the organiser and the Host(s)
- Event Organiser: taking care of the venue management and the « target client-groups » transport
- Host City(ies) and Host Country(ies) Administration: in charge of the transport and mobility
- National and Local Transport Authority(ies)
- National and Local Transport Operators
- Other private/public transport bodies



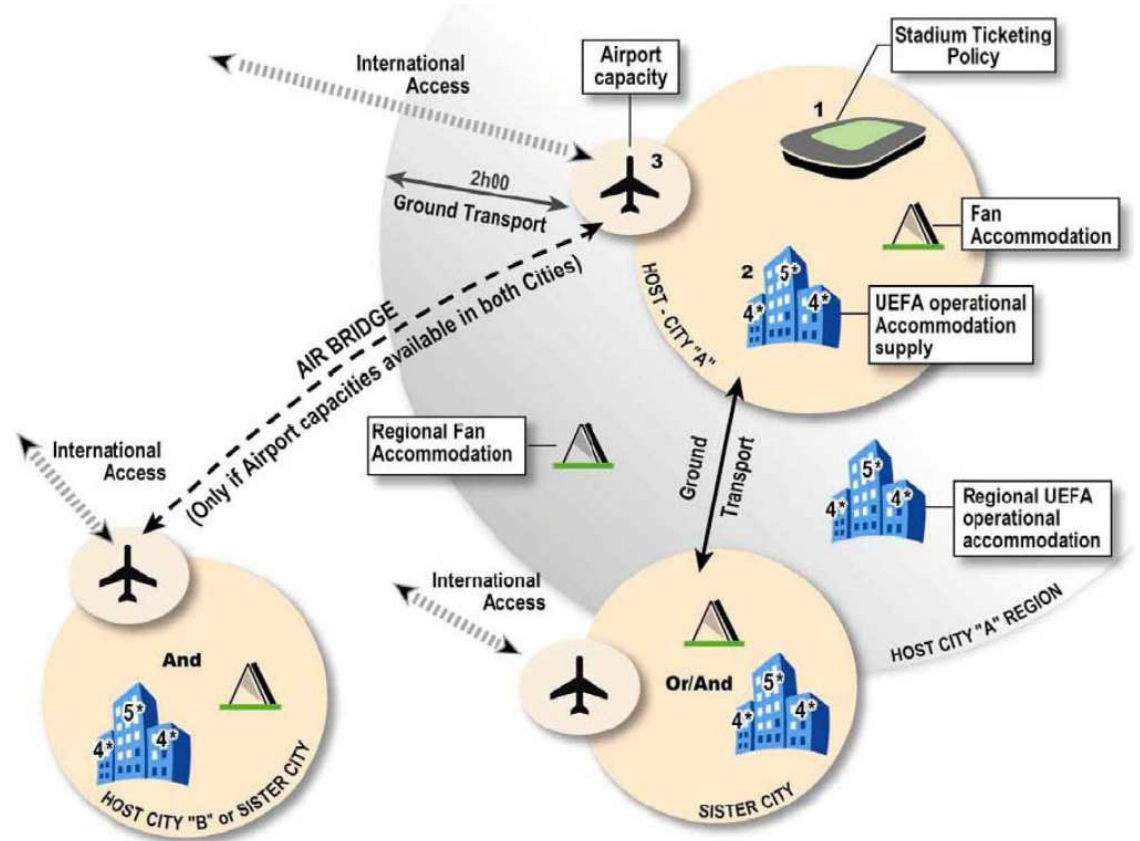
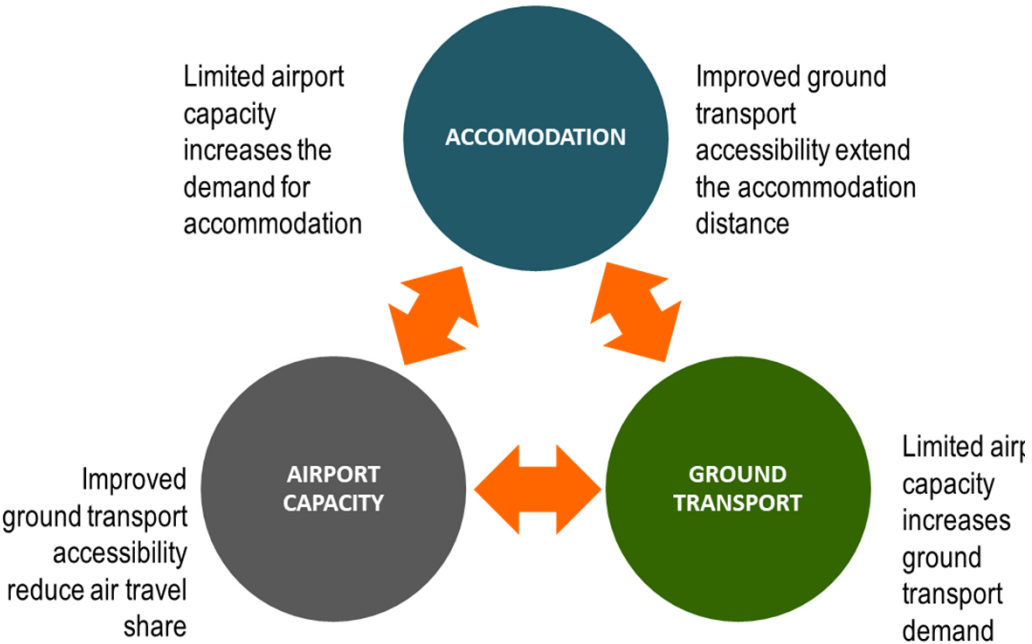
# Mobility plan for the event : exemple of a football event

- Multiple side-venues activated



# Mobility plan for the event

- Event's mobility plan is a multi-modal plan, tightly connected to the accommodation plan



## Mega events more sustainable mobilities

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***Obtaining Summer Olympics is a world competition.*** Candidate bidding Cities ( $\pm$  strongly backed by their country) play their best cards. ***To hope being successful :***

- ***N°1 card is an Olympic efficient and attractive sport concept.***
- ***N°2 card is an optimal transportation and mobility scheme : a tremendous challenge to host the biggest mega-event in the world***

***Public transport is the N°1 issue*** given the extraordinary strong time/space concentrated travel demands for reliable on-time stable and secured traffic performances.

***All 5 Olympic Cities 2000 to 2016, accelerated bold and massive high performance public transport projects catalized by the Olympic bid dynamics (except Tokyo 2020 where the Rail system is already considered as fully developed).*** Details provided in Annex I,II,III.

## Transport and Mobility progresses since Sydney 2000

- **Atlanta 1996** – *Olympic Games handicapped by major transport, logistics, technology and security operational failures– an Olympic counter-example!*

### **Most outstanding 2000-2020 Olympic transport innovations:**

- **Sydney 2000** -- *95% spectator by public transport, free public transport for ticketed and accredited*
- **Athens 2004** – *Olympic dedicated priority lane for reliable Olympic accredited client travel (athletes, officials, medias...)*
- **Beijing 2008** -- *40 % general traffic reduction during 60 days to improve global mobility and reduce air pollution*
- **London 2012** –*Convivial outstanding public transport performance and flexible mobility management well adapted to Games*
- **Rio 2016** -- *Massively improved public transport system – Well operated OLN system in world 3<sup>rd</sup> worst congested City– Semi adequate City traffic management during the Games!*
- **Tokyo 2020** –*Most powerful Rail public transport system in the world—Games possible only with 20% Rail PT travel demand reduction / same for Expressways!*



# Tentative conclusions

## Permanent vs. Temporary conclusions

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- Events such the Olympic Games reached a level of complexity hard to manage. Operational measures shall be in line with the Olympic Agenda 2020 and the New Norm, but this requires deep study (Paris 2024 and Milano Cortina 2026 will be first two examples of New Norm Games)
- Events are catalysers of infrastructure development only when/where this fits with the long-term development of the hosting territory.. Otherwise temporary solutions and management of existing infrastructure is crucial
- Permanent venues shall have permanent solutions targetting a more sustainable mobility and balanced demand.on the every day operations

## Planning an event conclusions

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- No host region is sized and equipped to host a mega event with no effort. Extreme pressure on supply, infrastructure, reliability and services
- Event planning shall integrate long term development opportunities of the host territory (not the opposite)
- Generally, demand is exceptional and partially unpredictable, depending on scale of analysis and could vary short notice. To understand the transport demand and define the main frame of services and Levels of Service for each client through transport demand forecast
- Transport planning for mega events are multi-scale and multi-disciplinary activities and interact with a broad range of other organisational tasks (security, etc.) . A bold management and governance plan is needed

## Operational learnings from events management

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- Planning process is oriented to minimization of operational risks of failure
- Conduct risk assessment analysis and track project development in order to anticipate planning solutions and limit the costs and time loss to avoid false good ideas or repeating mistakes from the past → Flexibility and transfer of experience
- Develop a set of contingency plans, policies and procedures and establish a solid communication process internally and externally to the organiser → operational management is different from planning
- React quickly → experienced, empowered and dedicated staff on both organiser and public authority side
- Test all the systems and people (training) in advance



# Thank you ! Obrigado !

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