



# SMART CITIES FORUM - ROME

13 APRIL 2018





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# FOREWORD

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Welcome to the FIA Smart Cities Forum in Rome. As a commitment to grow in a sustainable and efficient manner, cities around the world have adopted the New Urban Agenda to overcome urban mobility challenges and find long-lasting solutions for safe, sustainable and accessible transport. It is our role to advance the implementation of this Agenda and its targets. This Smart Cities Forum, dedicated to the topic of "Innovation in the Eternal City", will address this.

The City of Rome is currently responding to some of these challenges by implementing its «Sustainable Mobility Plan», a strategy to reform the system of mobility in Rome over the next ten years.

Rome, as many other cities in Italy, stands out for its historical urban layout and dense infrastructure, which inevitably creates heavy traffic conditions. There are 840 registered vehicles for 1,000 inhabitants, of which 640 are cars. This degree of motorisation is one of the highest in Europe.

Regardless of these urban mobility challenges, Rome has joined the Smart Cities movement, exploring ways of using innovation to enhance urban mobility services. A Smart City approach implies active use and implementation of digitalisation, connectivity and clean energy solutions. Rome is working hard to strengthen its road performance management across various pillars: vehicle types, infrastructure, urban planning congestion charging and others.

The FIA Smart Cities Forum in Rome will be an opportunity to discuss how cities facing similar issues can use technology and innovation to accelerate progress towards more efficient, inclusive and environmentally friendly mobility. The fifth FIA Smart Cities Forum will gather local authorities, international mobility experts, representatives of global industry players, and members of the start-up community to share knowledge and experience transformations related to urban mobility. Participants will also have the opportunity to observe the latest innovations in the field of E-racing and learn about their potential transfer to road cars.

The Forum in Rome will address:

- The scope of policies and actions under the Sustainable Mobility Urban Plan;
- State-of-the-art smart urban mobility innovations related to infrastructure and traffic management;
- The role of new motor sport technologies that advance sustainable urban development;
- The role of partnership and cooperation in deploying large-scale innovative solutions.

I hope you enjoy this forum in the Eternal City.



**Jean Todt**

FIA President,  
UN Secretary General's Special Envoy for Road Safety



ROME

# INNOVATION IN THE ETERNAL CITY

13 APRIL 2018





# AGENDA

13 April 2018 // 9.00 - 15.00

9.30 - 10.15

## KEYNOTES

### Innovation as a driver of intelligent mobility infrastructure

**Carlo Ratti**, Director, MIT Senseable City Lab

### Renewable energy for sustainable technologies

**Olivier Wenden**, Executive Director, Prince Albert II of Monaco Foundation

10.25 - 10.55

## PANEL DISCUSSION

### How to transform a city into a Smart City through tools and innovations

**Vincent Kobesen**, CEO, PTV Group

**Erik Grab**, Vice President, Strategic Anticipation, Innovation & Sustainable Development, Michelin Group

**Alberto Piglia**, Head of e-Mobility, ENEL X

10.55 - 11.15

## COFFEE BREAK

10.15 - 10.25

## INTERVIEW WITH A FORMULA E DRIVER

### Sustainable future of the championship

**Luca Filippi**, professional Formula E Driver



11.15 - 11.45

## PANEL DISCUSSION

### How to transform a city into a Smart City through policy and advocacy

**Sheila Watson**, Deputy Director, FIA Foundation

**Linda Meleo**, Councillor for Transport Policies, City of Rome

**Raffaele Chiulli**, President of ARISF Chairman, Centre of Excellence for Energy and Environment (SAFE)

**Miguel Gaspar**, Deputy Mayor for Mobility, City of Lisbon

# E-Motion Pavilion at the Formula E circuit

11.45 - 12.15

## HIGH-LEVEL REMARKS

### Challenges and opportunities in urban mobility

**Jean Todt**, FIA President

**Virginia Raggi**, Mayor of Rome

**Enzo Bianco**, Mayor of Catania and Chairman of National Council ANCI

**Angelo Sticchi Damiani**, President, ACI

**Alejandro Agag**, CEO, Formula E Holdings

12.45 - 13.00

## GARAGE VISITS OVERVIEW



15.00 - 15.30  
**SHAKEDOWN**

13.00 - 14.00

## LUNCH BREAK

12.15 - 12.45

## FIA SMART CITIES GLOBAL START-UP CONTEST

### Leading entrepreneurs in the field of new mobility solutions



14.00 - 15.00

## TRACK & GARAGE VISITS

### Testing innovations in practice

ENEL

FIA Safety Center

Qualcomm

FE Team Garage

Michelin

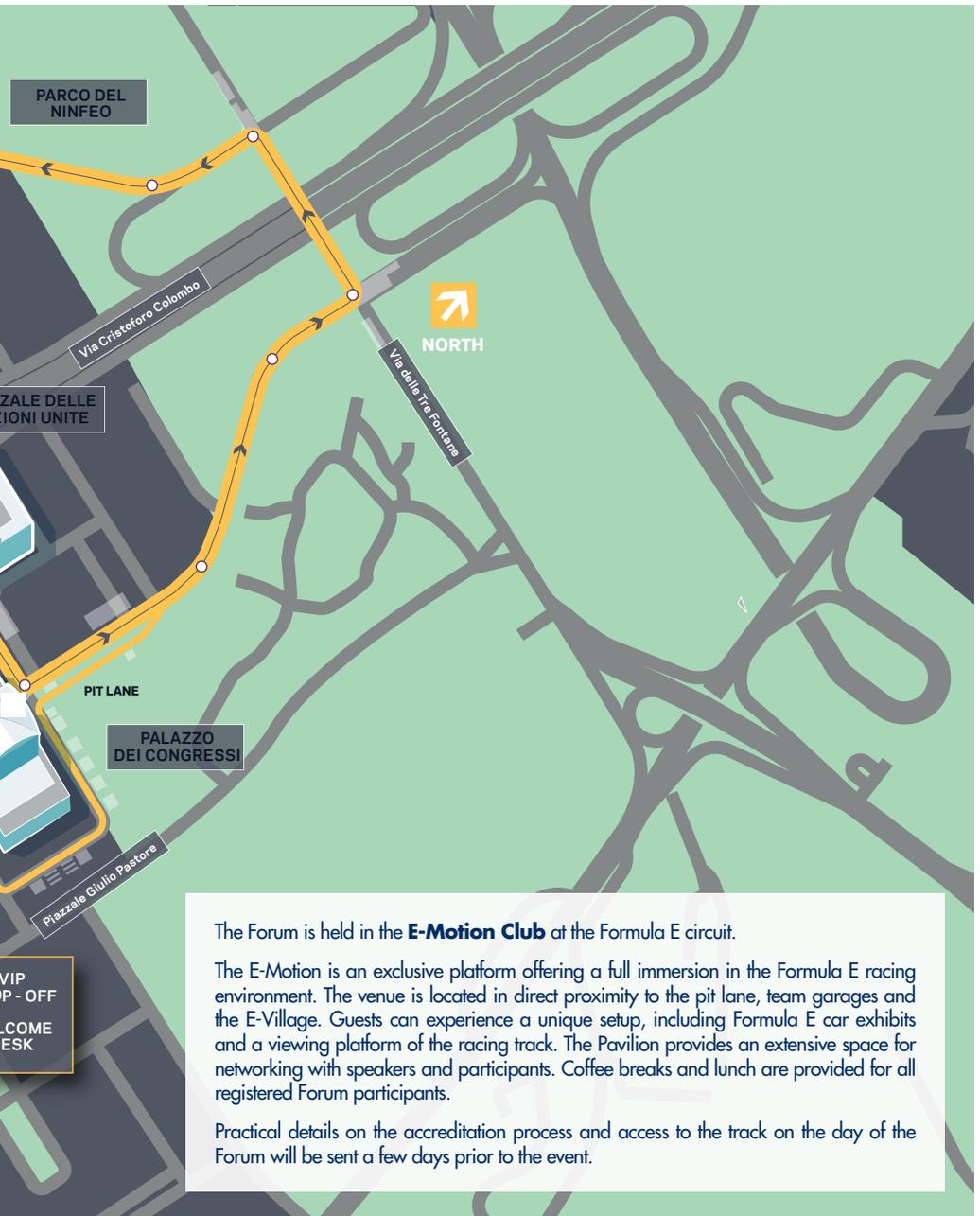
Mercedes-Benz Italia



# LOCATION



Please note that access to the E-Motion Pavilion is valid on Friday 13 April only.



The Forum is held in the **E-Motion Club** at the Formula E circuit.

The E-Motion is an exclusive platform offering a full immersion in the Formula E racing environment. The venue is located in direct proximity to the pit lane, team garages and the E-Village. Guests can experience a unique setup, including Formula E car exhibits and a viewing platform of the racing track. The Pavilion provides an extensive space for networking with speakers and participants. Coffee breaks and lunch are provided for all registered Forum participants.

Practical details on the accreditation process and access to the track on the day of the Forum will be sent a few days prior to the event.

# INTERVIEW WITH VIRGINIA RAGGI

## Mayor of Rome

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### **Q.** What forces are driving the transformation of the transportation sector in *Roma Capitale*?

**A.** Our common objective is sustainable and inclusive development, it is our strength toward change, especially in the transportation sector. We are designing the town of the future, favoring interconnected mobility with low-environmental impact works. Once again, Rome is the protagonist in the debate on climate change thanks to the commitment underwritten in Mexico City where we announced a stop to the use of diesel engine cars in the city centre from 2024.

Our task is to facilitate transfers and discourage the use of private cars so that everybody may benefit from useful and efficient links. To do, this we are drafting the first Urban Plan on Sustainable Mobility together with citizens, getting them truly involved in this change. This is a medium and long term structured programme based on the construction of new tram lines, underground, cableways, bike lanes, and green islands.

This is a chance to reorganise space with new dedicated areas. This means less space for cars, limiting traffic and focusing on the ambitious zero emission objective. Rome must be competitive and is ready to take up the challenge.

### **Q.** What are the city's priorities to make mobility more sustainable?

**A.** Innovation, technology, sustainability and relaunching of all local public transport. Establishing a sustainable city model means giving access to safe and convenient transportation systems for everybody and improving road safety. Rome is focused on the future and has set a list of priorities. Policies targeted to enriching railway infrastructure, targeted initiatives aimed at encouraging pedestrian and bike mobility, as well as the use of electric cars.

As far as the issue of mobility is concerned, we must focus very strongly on the use of electric vehicles, looking with great interest at the development of innovation in this sector. The aim is to place the citizens and their needs right at the centre of the project. This is the reason why we have promoted and still support measures and initiatives to protect the right to health and the green-sustainable economy. As to electric vehicles, our minimum objective is to have at least 700 new power columns built by 2020. This is the process we are following for a human scale city.





**Virginia Raggi**  
Mayor of Rome

*Virginia Raggi was born in Rome and grew up in the San Giovanni Appio Latino neighbourhood, where aqueducts and ruins of Roman walls are still visible. She studied law, focussing on civil and judicial law and out-of-court settlements, with a particular focus on intellectual property.*

*She has published several articles and case notes in academic journals, and in 2007, she was appointed Honorary Fellow at the University of Rome. She joined the 5 Star Movement in 2011. In 2013, she was elected as City Councillor. For her entire term, she was part of the Commission for Culture, Employment and Youth Policies, as well as the Commission for Social Policies and Health.*

*For Virginia, "politics" is about developing a better idea of society, of civilization, and, as a consequence, a better administration. It is not a generic and vague idea about what is 'good' for voters, and even less about occupying a seat of power. Politics is not a job, nor a mission: it is the desire to bring back legality, normality and sustainable progress.*

# INTERVIEW WITH ANGELO STICCHI DAMIANI

## President of the Automobile Club d'Italia (ACI)

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**Q.** ACI is the voice of Italian motorists. The development of Smart Cities requires behavioural changes on the part of drivers. Are they ready and how can we help them?

**A.** Motorists are first and foremost citizens and they are aware that their city's quality of life strongly depends on the quality of its mobility services. They are therefore more attentive to any concrete solutions that might improve their daily commute. I firmly believe that their willingness to change their habits should be encouraged with appropriate programmes, continuous and clearly structured information, connectivity services and real time info-mobility.

**Q.** How is ACI supporting cities to mitigate their transport-related environmental impact?

**A.** I'd like to point out that the impact of private transport on pollution and greenhouse gases has drastically diminished over recent years, thanks to the enormous technological development of endothermic engines. That being said, ACI is currently working on the following:

1. Development of sustainable models for better urban mobility planning and management;
2. The implementation of new technologies to support and facilitate sustainable solutions;
3. Constant dialogue with motorists to inform them of the advantages stemming from new forms of mobility and encourage all mobility stakeholders to adopt responsible behaviours.

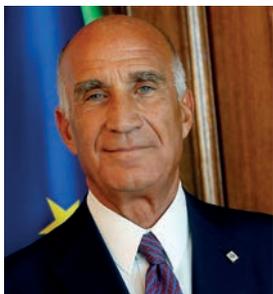
**Q.** Motor sport represents a powerful instrument for research and innovation. For you, how can it help us develop new sustainable mobility solutions?

**A.** Motor sport contributes both to the development of new-generation cars and integrated systems which are necessary for the implementation of useful solutions for Smart Cities. New technologies are pushed to the limit by sport competitions before being rolled out, offering innovative and reliable features to all road users.

**Q.** The first official "Rules of the Roads" were written for Rome by Julius Caesar. How can the Eternal City face tomorrow's mobility challenges?

**A.** Rome is one of the most important ancient cities of Europe. Finding suitable solutions that combine the historic urbanisation of the city with the needs of our contemporary life is crucial for us going forward. We must first and foremost create a single control-room in terms of city government that involves the entire urban mobility stakeholder system. This will help achieve concrete mobility planning based on a combination of sustainable solutions that are safe, environment-friendly, and economically affordable.





### **Angelo Sticchi Damiani**

President of the Automobile Club d'Italia (ACI)

*A civil engineer, Angelo Sticchi Damiani, was born in Lecce in 1945.*

*A professional in the field of road infrastructure, Angelo Sticchi Damiani is a successful road designer at national level.*

*A rally driver in the '70s, he has been a leader of the ACI Motor Sport Federation since 1975. From 1984 to 2000 he was International Race Director.*

*His professional experience is linked to the world of motor sport through a number of projects in the field of plant engineering and racing tracks, including an international testing centre for the automotive sector.*

*A former member of the FIA Circuits Commission, he was also a member of the FIA Senate from 2013 to 2017 and was appointed FIA Vice-President for Sport in December 2017. He is member of the FIA World Motor Sport Council.*

*As a classic car lover, he has participated in many historical races. He is the founder and President of "ACI Storico", the classic car club of the ACI.*

*In 2010 he was awarded the "Gold Star for sporting merit" of the Italian National Olympic Committee (CONI) where he serves as national advisor.*



Automobile Club d'Italia

# INTERVIEW WITH CARLO RATTI

Director, MIT Senseable City Lab

Founding Partner, Carlo Ratti Associati

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**Q. Innovative infrastructure is an important factor in creating Smart Cities: how can new technologies be deployed to really make a difference in the urban environment?**

**A.** First, I would like to say that what people sometimes define as a Smart City (a name I do not particularly like) is nothing else than the outcome of a broad technological phenomenon, that has been unfolding over the last two decades and is now undergoing a dramatic acceleration. The Internet is entering physical space, becoming an Internet of Things (IoT), and ushering in a series of unprecedented possibilities in terms of how we can understand, design and live in a city. Applications are manifold: from mobility to energy, from water to waste. If we play it right, these transformations can help make urban areas more sustainable and produce new forms of citizen participation.

**Q. Can technologies create a positive influence in changing user behaviour with regard to mobility?**

**A.** Technology is usually neutral – it is up to us to decide how to use it. Let's look at Autonomous Vehicles (AVs): they could lead us in two radically different directions.

The advent of AVs will have a dramatic impact on our urban life. For instance, "your" autonomous car could give you a lift to work in the morning and then, rather than sitting idle in a parking lot, give a lift to someone else in your family – or to anyone else in the neighbourhood. This could potentially blur the distinction between private and public modes of transportation and allow us to run a city such as New York, Singapore or Delhi with a small percentage of the cars we have today. In general, fewer cars could mean shorter travel times, less congestion, and a smaller environmental impact.

However, the same technology could lead us in a radically different direction. Problems might arise from what one could call the "unfair competitive advantage" of vehicle autonomy. The cost of traveling a mile might drop so substantially that people would abandon public transportation in favour of autonomous cars. That, in turn, could lead to an increase in the number of vehicles in a city – and with that increase, surreal gridlock.

As Robin Chase, the founder of ZipCar, wrote recently, "Simply eliminating the drivers from cars, and keeping everything else about our system the same, will be a disaster." As was the case in the 20<sup>th</sup> century, much will depend on a healthy cycle of trial and error – and on the policy decisions we will make.

**Q. Managing the transition: is it really possible to "redesign" an eternal city like Rome?**

**A.** Why should we redesign it? I think that, as we explore the consequences of IoT, we should start working from a city as it is. One of the major upsides of IoT technologies is that they do not require an infrastructural overhaul. This is very different from what happened in the past century. Historical cities have never been able to adapt to the technologies of the past century – which were heavy, invasive, and not compatible with our cultural heritage and urban morphology. To the contrary, IoT technologies can easily adapt to historic urban fabric.

**Q. For you, what is the city of tomorrow?**

**A.** A playful city. I like the dream of New Babylon, the mid-20<sup>th</sup> century utopia by Dutch artist Constant: "In the worldwide city of the future... a society of total automation, the need to work is replaced by a nomadic life of creative play, a modern return to Eden. The 'homo ludens', whom man will become once freed from labor will not have to make art, for he can be creative in the practice of his daily life."



**Carlo Ratti**

Director, MIT Senseable City Lab  
Founding Partner, Carlo Ratti Associati

*An architect and engineer by training, Professor Carlo Ratti teaches at MIT, where he directs the Senseable City Laboratory, and is a founding partner of the international design and innovation practice Carlo Ratti Associati.*

*A leading voice in the debate on new technologies' impact on urban life, his work has been exhibited in several venues worldwide, including the Venice Biennale, New York's MoMA, London's Science Museum, and Barcelona's Design Museum. Two of his projects – the Digital Water Pavilion and the Copenhagen Wheel – were hailed by Time Magazine as 'Best Inventions of the Year'.*

*He has been included in Wired Magazine's 'Smart List: 50 people who will change the world'. He is currently serving as co-chair of the World Economic Forum's Global Future Council on Cities and Urbanisation, and as special advisor on Urban Innovation to the European Commission.*

# INTERVIEW WITH VINCENT KOBESSEN

## CEO, PTV Group

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**Q.** What are the main pillars of the PTV vision known as the “the mind of movement”?

**A.** Our vision is: “We plan and optimise everything which moves people and goods worldwide. Integrated and in real-time.” Therefore, we deliver cutting-edge software solutions for traffic planning, transport logistics and new mobility to cities and industry. PTV ensures that people and goods arrive at their destinations safe and sound, and on time.

**Q.** Which measures are to be undertaken today to make sure the future of urban transportation encompasses the targets of sustainable development?

**A.** Today we can already analyse and demonstrate the impact of traffic on our environment. At PTV Group we can show and model the current status quo as well as future mobility scenarios and the consequences of different measures. If we want to establish sustainability in cities, we have to find a common sense between the different aspects.

Every city has to define the rule set and framework for its future: which mode will be the favourite one? How can alternative mobility be integrated? What can be done to improve air quality? How do we organise urban logistics and last-mile delivery? The challenge is to find a suitable set up which is fit for the future. The good news is, even today you can plan and simulate different sustainable scenarios and eventually, find the right decisions for the future.

**Q.** Does the global trend of city networks reflect the overall shift towards a more profound collaboration between sectors, stakeholders, industries and institutions?

**A.** There is still a long way to go. There are still significant political and economic borders to overcome.

**Q.** How does the PTV Group position itself in regards to other players in the mobility ecosystem?

**A.** We take a holistic approach that integrates all aspects of traffic, transport and logistics to create and promote sustainable mobility. We have unique know-how, a start-up mindset, we work locally on a global scale and supply four decades of experience in regard to optimising traffic and transport logistics. And, with our shareholder Porsche Automobil Holding SE, we have a financially strong partner behind us.





**Vincent Kobesen**  
CEO, PTV Group

*Vincent Kobesen has been a member of the PTV Executive Board since 1 July 2008. He was appointed CEO in July 2011. In this capacity, he focuses on PTV's global business development.*

*After completing his degree in Business Administration, Vincent Kobesen joined Fokker Aerospace and Districon. He acquired Districon and founded Ordix (today PTV Nederland), both long-term business partners of PTV.*

*Moreover, Vincent Kobesen is a member of several supervisory boards, including the boards of PTV and external shareholdings.*

# BIOGRAPHIES

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## **Raffaele CHIULLI**

President of ARISF  
Chairman, Centre of  
Excellence for Energy and  
Environment (SAFE)

*Raffaele Chiulli has previously worked in Chief Executive positions within the energy industry and held board membership in multinational energy companies.*

*Mr Chiulli has proven abilities in building relations, attracting investments and gaining support at the highest level with government authorities, sport institutions and multinational companies.*

*He is also a published author and professor at the Universities of Rome and Pisa, teaching classes on the economy and strategy of energy resources research and management.*



## **Erik GRAB**

Vice President, Strategic  
Anticipation, Innovation &  
Sustainable Development,  
Michelin Group

*Erik Grab has more than 10 years of market research experience in the automotive industry and more than 10 years of consulting and marketing experience.*

*Since 2009, he has been taking on different responsibilities in the innovation and strategic anticipation fields for global companies. He began his career at Michelin as Sales Representative and Market Research Officer, before moving agency-side where he held a number of senior roles in other companies.*

*In his current role, Mr Grab focuses on the challenges and opportunities presented by new technologies and business models, and the increasing demand for new mobility solutions worldwide.*



## **Linda MELEO**

Councillor for Transport  
Policies, City of Rome

*Linda Meleo is currently the Councillor for Transport Policies of Rome. She holds a PhD in Law and Economics (LUISS Guido Carli University, Rome), an LLM in Competition Law and Economics (Erasmus Universiteit, Rotterdam), a Master in Law and Economics (University of Ghent) and a Master in Economic Analysis of Law (Paul Cézanne-Aix Marseille III University, Aix-en-Provence)*

*She has senior experience in regulatory and antitrust issues especially in transport and mobility.*



### **Alberto PIGLIA**

Head of e-Mobility, Enel X

*Alberto Piglia has more than 20 years of experience in Marketing, Sales and Innovation. He has worked in complex environments both in Italy and worldwide.*

*Mr Piglia covered several roles in Nokia including Marketing Director Europe and Global Marketing Planning Director. He has also been a Partner in the Consultancy Ars et Inventio division of Bip, and a co-founder and CMO of Scuter, a smart e-scooter sharing start-up. He joined Enel in May 2017 as Head of e-Mobility for Enel X.*



### **Sheila WATSON**

Deputy Director, Director of Environment and Research at the FIA Foundation

*Sheila Watson works for the FIA Foundation – a UK-based charity committed to promoting safe sustainable mobility across the world. She is also Executive Secretary to the Global Fuel Economy Initiative (GFEI) and the Real Urban Emissions Initiative (TRUE).*

*An economist with many years experience as Senior Special Adviser to the UK Labour government, her former roles include Deputy Director of the Centre for Local Economic Strategies, and Policy Researcher at the Institute for Fiscal Studies.*

*Ms Watson has an Honours Degree from the University of Oxford, and an MSc in Economics from Birkbeck College, London.*



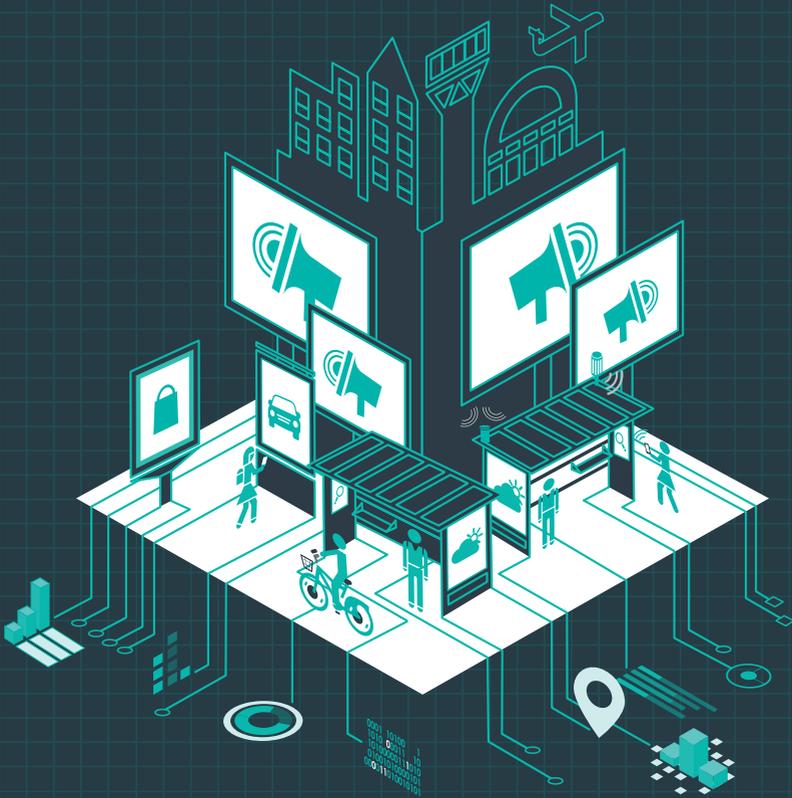
### **Olivier WENDEN**

Executive Director, Prince Albert II of Monaco Foundation

*Olivier Wenden is the Executive Director of the Prince Albert II of Monaco Foundation. Created in 2006 by HSH the Prince of Monaco, the Foundation acts against the environmental dangers threatening our planet and making populations vulnerable. Since 2014, the Foundation has joined the FIA Formula E Championship as an international charity partner, in order to promote the vast potential of clean mobility.*

*Before joining the Foundation, Mr Wenden worked for the Parliament of Monaco as Chief of Staff and International Affairs and Communication Advisor (2007-2013).*

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