PROFESSOR CARLOS MORENO



Born on 16 April 1959, Tunja, Colombia - lives in Paris French nationality

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BIOGRAPHY

Summary: PASSER OF WORLDS

Carlos Moreno is an associate professor at IAE Paris Sorbonne - Université Paris 1 Panthéon Sorbonne in France and co-founder and scientific director of the ETI Chair in Entrepreneurship, Territory, and Innovation.

He is also a professor at the International Academy of Architecture (IAA). His peers in France elected him to the prestigious Académie des technologies, a lifetime accolade for his body of work.

A multi-disciplinary researcher specialising in the intelligent control of complex systems, he is a worldrenowned, multi-award-winning scientist. He is known for his pioneering commitment to cities and the quest for quality of life, being one of the architects of a vast international movement to make the city we live in humane, sustainable, and inclusive.

Carlos Moreno was born in Tunja, Colombia, in 1959. He arrived in France at age 20 as a political refugee in Paris, where he has always lived. He studied at university in Paris and stayed there. He adopted French nationality in 1986 and built his professional and personal life intending to give back to France what it had generously offered by welcoming him. He became a university professor, an expert in innovative technologies and then an international pioneer in cities and territories. In April 2010, he was made a Knight of the French Legion of Honour in the Ministry of Defence contingent. After developing innovations through robotics in his joint research unit at the CNRS, and being a profoundly Euro-sovereignist, he worked on strategic applications in the nuclear and military sectors.

This scientist and humanist describes his career as a journey driven by passion: a passion not only for innovation, creativity and exploration but also for sharing, connecting and bonding with others. His journey has always been informed by the man he considers one of his primary sources of inspiration, the century-old complexity thinker Edgar Morin, whom he also befriends.

In line with his thinking, he has always explored various disciplines and fields of action in a wide range of areas - education, research, and industry - and with the firm belief that innovation comes from their interaction.

Carlos Moreno is deeply convinced of the urgent need for a new quality of human relations based on otherness, respect, dialogue, exchange, education, and benevolence. Acceptance of difference and nonviolence are the foundations of this. His week-long meeting in Dharamsala, as part of a group of 40 invited international personalities, with the Dalai Lama's scientific adviser, Samdsong Rinpoche, and then with the Dalai Lama himself in 2018, helped shape his proposals for impact.

Today, Carlos Moreno is one of the pioneering researchers of cities for people and sustainable cities offering solutions. Since 2014, he has been focusing on the convergence of triple zero: zero carbon, zero poverty and zero exclusion, following his meeting with Nobel Peace Prize winner and friend Professor Muhammad Yunus, who inspired him with his eponymous text. His research concept, known worldwide as the "15-Minute City", has become a new global urban path towards a sustainable, liveable and inclusive city. This concept proposes a

new urban and territorial approach based on a synthesis of chrono-urbanism, chronotopia and topophilia, and a social circularity of the six essential urban and territorial functions.

Carlos Moreno's contributions are internationally acclaimed for their originality and have been incorporated into numerous local governance and urban transformation projects in France and worldwide.

Carlos Moreno has received numerous awards and accolades in France and abroad.

These include:

- In 2019, the French Academy of Architecture's Medal for Foresight.
- The OBEL Prize 2021 is a renowned international architecture award that "*honours recent outstanding architectural contributions to human development around the world*." It was announced on World Habitat Day, 4 October 2021.
- On World Habitat Day, 3 October 2022, his global initiative "The 15-Minute City" was awarded the UN-Habitat 2022 Scroll of Honour, one of the world's most prestigious awards for those working to promote the well-being of people in cities and territories. He was rewarded as a creator for having "provided a convincing model of sustainable urban development with global reach and for having contributed to accelerating the implementation of the new urban agenda as a recovery plan after 19 years of crisis".
- In 2023, he was co-opted into the American Academy of Housing & Communities and, in the same year, into the world's oldest and largest honorary network of scientists, Sigma Xi, The Scientific Research Honor Society, founded in 1886 at Cornell University and counting more than 200 Nobel laureates among its members.
- Among the various organisations and think tanks to which he belongs is the Scientific Committee of the Italian Council of Architects, Planners, Landscape Architects and Curators (CNAPPC), which Carlos Moreno has chaired since its creation in 2023.
- On 24 October 2024, at the 19th session of the United Nations, he received the "Global Leadership Award for Sustainable Development" at the United Nations headquarters in New York.

The "Politico Europe" media considers Carlos Moreno to be one of the 28 most influential people in Europe and the second most visionary in the field of sustainable development.

In 2023, the American online magazine "Planetizen" ranked Carlos Moreno 10th among the world's most influential contemporary urban planners.

1° SCIENTIFIC TEACHING, RESEARCH AND EXPERIMENTATION

Carlos Moreno is now world-renowned for his ideas, initiatives, and applications focused on the intelligent, sustainable, and inclusive city, including the 15-Minute City concept. However, his background is that of a multidisciplinary, passionate, and creative teacher-researcher.

A political refugee from Latin America at the time of the dark and violent dictatorships, Carlos Moreno arrived from his country in search of protection for his life. He joined the French academic and scientific community when he arrived in 1979. In 1983, he became a researcher and teacher at the University of Paris Sud's Cachan Institute of Technology in the Computer Science and Robotics Laboratory (LIMRO), directed by Professor James Richard. He trained and worked with the pioneers of robotics then, an emerging discipline that drew on mechanics, computing, electronics, and mathematics to study the adaptive interface between robots and their environment.

Carlos Moreno's work in the field of robotics and artificial intelligence made him aware of two things: firstly, that systems must be designed in terms of complexity, i.e. that an entity can only be understood in the context of its environment and must be studied in the context of its relationships and dependence on other factors; and secondly, that this complexity can be applied in the real world to create value through innovative services and uses. Driven by a desire to put scientific innovation at the service of society, Carlos Moreno also helped set up

one of France's first technology transfer centres in the Paris region, the Centre d'Études et de Recherches en Mécanique et d'Automatisme (CERMA) in Cachan.

He became an expert on the technical secretariat of one of the first scientific, technical, and industrial cooperation programmes of the European EUREKA programme, FAMOS, focusing on complex manufacturing methods.

In 1990, after taking part in its creation, he began working at the University of Evry, where he became a full professor after obtaining France's highest university diploma, the Habilitation à Diriger de Recherches / Habilitation to direct research (HDR / PhD) in Mathematics-Computer Science, specialising in Robotics. His jury was made up of Philippe Coiffet, a French pioneer in robotics and co-founder of the Académie des Technologies, Professor Michel Israël, a member of the board of directors of the international scientific organisation IEEE, a pioneer in computer science methodologies and co-design, and one of the pioneers of artificial intelligence, and his former professor Patrick Greussay.

At the Laboratoire des Méthodes Informatiques (LaMI), a joint unit of the Centre National de la Recherche Scientifique (CNRS), he founded and led the 'Systèmes Réactifs et Adaptatifs Distribués' (SYDRA) team and developed important links with industry. At the end of the 1990s, the creation of Genopole, a biotechnology cluster in Evry, allowed the university's scientists, research engineers and entrepreneurs to work together, despite their differences in training and specialisation, an approach that Carlos Moreno has been promoting ever since. Carlos Moreno works closely with this programme led by Pierre Tambourin and Gabriel Mergui. For the LaMI, professors and colleagues Gilles Bernot, now a bioinformatician, and Pascale Legall, it was a time of great epics, the decoding of the human genome and epigenetics.

After developing a set of methods and tools with his team, he applied them to numerous projects closely linked to innovation. Initially, he worked in various industries, including automotive, medical, nuclear, and military. Later, thanks to his research into change, he decided to tackle the world's increasingly demanding urban challenges. Under the Innovation Act (1998), he set up a successful start-up in his laboratory. As a pioneer, he developed the concepts of the "Digital and sustainable city" in 2006 (before the emergence of the "Smart city" concept in 2010), to which he preferred the "Human smart city" launched in 2012, then refined it with the "Living city" in 2014, up to the "15-Minute City" proposed in 2016.

On returning from this period of entrepreneurship, Carlos Moreno joined the IAE Paris Sorbonne of the University Paris1 Panthéon Sorbonne in November 2017. He is co-founder of the 'Entrepreneuriat Territoire Innovation' chair - ETI, which focuses its research on urban and territorial change.

Carlos Moreno offers new ways for cities to tackle the pressing issues of the 21st century. The "15-Minute City" concept has crossed borders, regions, cities of all sizes, and geographical and cultural areas. Thanks to mayors, international organisations, the media, the private sector, and urban ecosystems, it is now a breakthrough being applied in many cities worldwide.

In November 2019, the mayor of Paris, Anne Hidalgo, adopted this concept as the centrepiece of her urban strategy. In May 2020, the mayor of Milan Giusseppe Sala, the epicentre of COVD-19 in Europe and heavily affected by the pandemic. The C40 global network of cities, led by the mayor of Milan, set up a working group to recover from the pandemic. In July 2020, the C40 Cities adopted it as a strategy for all major cities to meet the crucial challenges of global warming and the COVID-19 pandemic. In November 2020, with Pritzker Prize director Martha Thorne, Carlos Moreno signed the Manifesto to mobilise researchers and innovators on the climate and pandemic challenges facing our cities. In December 2020, together with 18 partner cities, the C40 launched the "*Student reinventing cities*" initiative. A global competition that allows students to share their vision of green and prosperous urban neighbourhoods. In New York, in September 2022, during "*Climate Week*" organised in parallel with the United Nations General Assembly, the Mayor of New York, Eric Adams, together with C40, UN-Habitat, Bloomberg and a Danish partner, announced the launch of a global "15-Minute Cities"

initiative with new pilot cities. In Buenos Aires, in October 2020, the C40 Cities summit launched a worldwide structured action for the development of transformative city projects in proximity, in the presence and with the active participation of Carlos Moreno. This action has become a strategic focus for C40 and its allies and partners.

UN-Habitat has also adopted this vision, which was supported by other international organisations, such as the World Health Organisation, in 2020. The IPCC also advocated it in its Working Group III report of April 2022.

On 10 October 2020, Carlos Moreno was one of 39 French personalities who participated in the launch of the "*Countdown*" global climate initiative. Alongside Antonio Guterres, Pope Francis, European Union President Ursula Von der Leyen, Prince William, and actress and activist Jane Fonda, an appeal was launched to step up the fight against climate change. Former US Vice President Al Gore introduced the "15-Minute City" concept, one of the initiatives proposed for cities.

In June 2021, Carlos Moreno was appointed co-chair of the French Ministry of Culture's scientific and technical network on architectures in extreme environments, RST ARCHES, alongside architect and academician Jacques Rougerie, astronaut Jean Jacques Favier, and architect Lina Ghometh.

The Global Observatory on Sustainable Proximity was launched in June 2022 in collaboration with UN-Habitat, C40 Cities, the global network of United Local Governments (UCLG), and other leading international partners. The ceremony occurred during the 11th World Urban Forum in Katowice, Poland.

UN-Habitat's World Cities 2022 report, published to coincide with the event, presents the "15-Minute City" as a promising way to tackle ecological, economic, and social challenges. In her closing speech, UN-Habitat Executive Director Maimunah Mohd Sharif also made this recommendation, one of six key recommendations.

UCLG invited Carlos Moreno to be one of the five drafters of the strategic vision, the "Pact for the Future", which was adopted at the General Assembly in Daejeon (South Korea) in October 2022.

In 2024, Carlos Moreno actively participated in the 12th World Urban Forum in Cairo. His influence is reflected in the theme, which was the central focus of this global event, the most important of the urban and territorial ecosystem biannual "*It All Starts at Home: Local Actions for Sustainable Cities and Communities.*"

In 2025, as part of the World Ocean Conference, UNOC, organised by France and Costa Rica in Nice, under the authority of UNESCO, Carlos Moreno is actively involved in its preparation and development as a member of the prestigious Jacques Rougerie Foundation, the Académie des Beaux-Arts, and the Institut de France, of which he is one of the Ambassadors.

2° SHARING KNOWLEDGE

Professor Carlos Moreno has strived to create links between worlds throughout his career. His considerable work in building bridges between public bodies, large companies and SMEs in the high-tech sector is motivated by a strong belief in working together and a desire to cultivate collective intelligence. He also actively participates in public and private initiatives focused on innovation and research partnerships. As a scientific expert, he has participated in numerous government committees, working groups and public service missions. As a lecturer and populariser of science, Carlos Moreno is constantly in demand by the media in France and abroad to disseminate his work on science, technology, and the city. His TEDx talk "*Countdown*", the "15-Minute city", has been translated into 14 languages and viewed by nearly 1.5 million people.

Carlos Moreno also initiates numerous projects that bring together experts from all over the world. These projects enable him to deploy his concepts with a view to real-life application, benefiting his activities from the contribution of a broad national and international ecosystem.

Carlos Moreno advocates a profound transformation of our lifestyles and urban spaces, proposing solutions to the problems of cities, metropolises, and territories.

His contribution is recognised worldwide. It provides a convincing global model for sustainable urban development and helps accelerate the implementation of the New Urban Agenda as an action plan.

Books (1 January 2025):

Published by prestigious publishers and world leaders in publishing (Wiley, Hachette, Elsevier, L'Observatoire, etc.):

° 15 books as an author in 11 languages (French, Spanish, English, German, Korean, Italian, Romanian, Polish, Japanese, and Portuguese (from Portugal and Brazil), and soon, his 16th book in the 12th language, Chinese,

° 16 books as scientific director (9), co-publisher (1), and co-collection director (6) in French, English, Italian, Spanish and Korean.



Scientific publications:

Professor Carlos Moreno is widely recognised in the international academic world for his contributions through scientific publications and his participation in high-level conferences. He has been published in high-impact indexed journals on urban sustainability, digital transformation, and innovation in cities. In addition, he is a frequent guest author and editor of special editions of prestigious scientific journals and books, where he shares his vision of the concept of the city of proximities, the 15-Minute city, the territory in half an hour, the happy proximity, which is at the heart of his contribution to the international community. As a guest lecturer at the world's most prestigious universities and events, he promotes his ideas and works with researchers, institutions, and governments to develop innovative solutions for the future of cities.

- ORCID : 0000-0003-0207-6626
- Google Scholar
- <u>ResearchGate (in the top 5% of this international scientific community, top 2% in urban policy, top 4%</u> in IT in the social sciences, arts and humanities)
- <u>https://www.moreno-web.net/agenda-carlos-moreno/</u>

His <u>open-access</u> publication, "Introducing the 15-Minute City: Sustainability, Resilience and Place Identity in Future Post-Pandemic Cities," was published in January 2021 and became an iconic paper. By January 2025, it had almost 150,000 full reads.

In October 2024, the <u>publication</u> with Nobel Prize winners Paul Krugman, Peter Niejkamp and Karima Kourtit opened up an original approach to the concept of proximity as resilience, "*proxilience*" as an extension of the "*prosilience*" mentioned in this text: "Old wisdom and the New Economic Geography: Managing uncertainty in 21st century regional and urban development".

3° PARTNERSHIPS WITH INDUSTRY

In 1998, France's new law on innovation and research encouraged researchers to set up disruptive technology companies. Professor Carlos Moreno, with the support of his university, was one of the first researchers in France to seize this opportunity to bring together his best doctoral students, capitalise on the critical mass of knowledge they had generated and find industrial applications for the knowledge he had acquired about complex, intelligent systems. His company, Sinovia, was founded in 1998.

Based at the Laboratoire des Méthodes Informatiques, LaMI, its university research laboratory, Sinovia focused on the intelligent control of complex systems, with a particular emphasis on infrastructure. With initial funding from ANVAR (then BPI) to support researchers, Sinovia signed its first partnerships with industrial companies. It subsequently received support from business angels and investment funds in four rounds. All the projects developed by Professor Carlos Moreno during this period represented significant technological breakthroughs and revealed his visionary spirit. He was one of the first French researchers to become CEO of a start-up and subsequently took a leave of absence from the civil service, without leaving research, to honour this commitment.

Carlos Moreno became vice president of the Comité Richelieu, an association of high-tech SMEs that promotes entrepreneurship among researchers and innovators. The Comité Richelieu promoted market access for startups and SMEs with the "SME Pact," which is similar to the American Small Business Act. He was responsible for links with research and, in this capacity, signed the "Pacte PME Recherche" with OSEO (now BPI) at the time.

At the instigation of Jean-Jacques Gagnepain, and the suggestion of the Agence Nationale de la Recherche (ANR), under the direction of Jacqueline Lecourtier, and with François Goulard as Minister for Research, Carlos Moreno took part in the creation of the French university technology transfer system, the Carnot Institutes, which came into being in 2006. He was a member of the jury for the creation, accreditation, and monitoring of the Institut d'Excellence en Énergies Décarbonées (IEED), which became the Institut de la Transition Énergétique (ITE).

Following the launch of the French strategic project of the Grand Emprunt (Rocard - Juppé), under the government of François Filon, at the initiative of Thierry Coulhon, in 2010, as part of the "Centres of Excellence" programme of the Investissements 'Avenir, of the Commissariat Général à l'Investissement headed by Réné Ricol, Carlos Moreno was a member of the Strategic Orientation Advisory Committee.

At the same time, he is opening to new fields, aware of the critical role of cities and anticipating their changes in the face of climate change; he has been interested in them since 2004 as a complex system par excellence. This has led to a synthesis of his work with the 'Sustainable Digital City' concept, proposing a revolutionary, selfadapting, incremental and interactive digital platform to optimise, through dynamic mapping, the services supported by the infrastructures necessary for the well-being of a city's inhabitants. In this context, Professor Moreno's start-up has begun working with INEO, a French industrial group GDF SUEZ subsidiary, now ENGIE, which acquired Sinovia in 2010. Carlos Moreno then became the scientific advisor to Guy Lacroix, Vice-Chairman of GDF SUEZ, Chairman of the FISA business unit, infrastructures and services, and CEO of INEO. For five years, until December 2015 (when there was a change in the governance and strategy of the group, which became ENGIE), he worked to support Guy Lacroix, INEO, the FISA BU and the GDF SUEZ group in their strategic programme "The city of the future". He has played an active role in its transformation and actively contributed to opening new horizons in France and worldwide. With his DNA still turned towards high-level international meetings, he also created the "*Living in a Living City*" forum, bringing together the world's leading experts (Saskia Sassen, Carlo Ratti, Sunil Dubey, Carmen Santana, and many others) to tackle the challenges of our rapidly changing urban environments.

Carlos Moreno's proposals for the '15-Minute City', short distances, polycentrism, and happy proximity redefine various players in the private sector ecosystem, such as residential property, professional property, retail, and others. This approach prioritizes proximity and sustainability, leading to developments that integrate housing, retail, and services in accessible environments. Moreno's vision inspires the private sector worldwide to adopt innovative models that improve the quality of urban life.

The recognition received in 2022 by the International Real Estate Federation, FIABCI, as a pioneer in sustainable urban development with the "*World Pioneer Awards for Building Better Lives*" illustrates, among other things, this trend.

4° Among Carlos Moreno's contributions in the field of technology with industrial transfer:

- Assembly systems (automotive industry) Adaptive robotics for multi-user production systems 1990s
- Mass market innovation (home automation and assistive robotics) 1995 including the world's first hoover in 1997 (not marketed by Rowenta because it was too innovative and became five of the robots in the football team that represented France at the 1998 Robocup in Paris and the 2000 Robocup in Stockholm, as well as various home automation assistive devices).
- Offshore oil installations (intelligent and adaptive laying of pipelines in the North Sea) 1999
- Auto-adaptive oven control for firing aircraft parts (wings) made of composite materials 2000
- Multi-technical and multi-service platforms for sharing urban resources (open components with three worldwide patents) - 2001
- Intelligent and adaptive control systems for nuclear reactors (steam generator monitoring) All French power plants and abroad (using Plug & Net open components) -2001
- ♦ Intelligent public lighting systems for safety and sustainability (Plug & Net) 2002
- Robotics for genetic analysis (in collaboration with the Evry bioinformatics laboratory and Genopole) 2003
- Multi-technical risk prevention on high-risk industrial sites in France (as part of the Seveso directive) -Plug & View and development in 2004 of the Alertbox, to alert the population in the event of a crisis using a home device (Innovation prize)
- ♦ UAV programme for the French Army (DRAC programme, MALE in particular) 2005
- Development of city-wide surveillance of complex infrastructures (video surveillance, etc.) 2006
- Technology transfer to GDFSUEZ (INEO BU FISA) for the purchase of the start-up company SINOVIA (Plug & Net, Plug & View, Open Component) 2010.
- After 2020, multiple global players will be massively inspired to create business models, transform their businesses, or launch new companies in the activity of the 15-Minute City, the half-hour territory, and the happy proximity.

5° Detailed awards:

Carlos Moreno was appointed Chevalier de l'Ordre de la Légion d'honneur in April 2010 by the French Republic at a ceremony held at the Maison de la Recherche. Jean Jacques Gagnepain, then President of the Académie des technologies, who is now deceased, presented him with the award.

In 2019, he was awarded the 2019 Prospective Medal by the Academy of Architecture (France).

In 2021, it was awarded the OBEL AWARD 2021 in Paris by the Henrik Frode Obel Foundation (Denmark) and the Leadership Award, Smart City Expo World Congress (Barcelona).

In 2022, it received the European Congress of Local Governments Award (Poland), the FIABCI World Pioneers Award in Paris for Building Better Lives, along with academics Jacques Rougerie, Thomas Pesquet and Bertrand Piccard, and the Spanish International Mobility Award for Innovation in Sustainable Mobility (Madrid).

The renowned international organisation World Resources Institute (WRI), based in Washington, D.C., has selected the 15-Minute city as one of five finalists for the Ross Center 2022 Prize for Cities.

As creator of the global "15-Minute City" initiative, Carlos Moreno has received the 2022 Scroll of Honour from UN-Habitat, one of the world's most prestigious awards for those working to achieve sustainable urbanisation.

The official ceremony occurred on 3 October 2022, during the World Habitat Day celebrations in Balikesir, Republic of Turkey, in the presence of Executive Director Maimunah Mohd Sharif.

In 2023, he was co-opted into the American Academy of Housing & Communities and, in the same year, into the world's oldest and largest honorary network of scientists, Sigma Xi, The Scientific Research Honor Society, founded in 1886 at Cornell University and counting more than 200 Nobel laureates among its members.

In September 2024, at the 6th Urban Economy Forum in Toronto, UEF6, received "*special recognition*" "for his *tireless dedication and unwavering commitment to advancing sustainability, we pay tribute to his remarkable achievements*".

To mark World Cities Day 2024 at the 19th Global Forum on Human Settlements at the United Nations headquarters in New York, Carlos Moreno was invited to give the opening speech at the working session on "*Leadership for cities and innovation*". He received the "Global Leadership Award for Sustainable Development".

6° Organisations :

Member of the French Academy of Technology,

° Member of the American Academy of Housing & Communities

Professor at the International Academy of Architecture (IAA),

Member of Sigma Xi, The Scientific Research Honor Society, one of the oldest and largest scientific organisations in the world (founded in 1886),

Chairman of the Scientific Committee of the Italian Council of Architects, Planners, Landscape Architects and Curators - CNAPPC,

Ambassador of the Jacques Rougerie Foundation | French Academy of Fine Arts at the Institut de France,

Member of the strategic committee of UN-Habitat's SAGE partners,

Member of the Scientific Committee of the Urban AI Think Tank,

° Co-founder of the Observatoire Mondial des Proximités Durables (UN-Habitat, UCLG, IAE Paris Sorbonne).



UN-HABITAT Scroll of Honour - 2022 Dalai Lama Prix Nobel 1989 Muhamad Yunus Prix Nobel 2006 Samdong Rinpoche – Conseiller scientifique du Dalai Lama Paul Krugman Nobel 2008- Edgar Morin



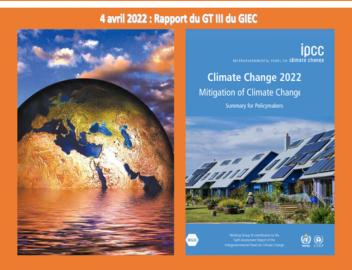
June 30th: World Urban Forum - WUF11 - UN HABITAT



" L'importance pour les villes de développer des stratégies dédiées à l'utilisation de l'espace public



World Cities Report 2022





« Mettre en œuvre 15 / 20 Les programmes de la ville Minute sont très susceptibles de réduire la consommation d'énergie en milieu urbain ... »

