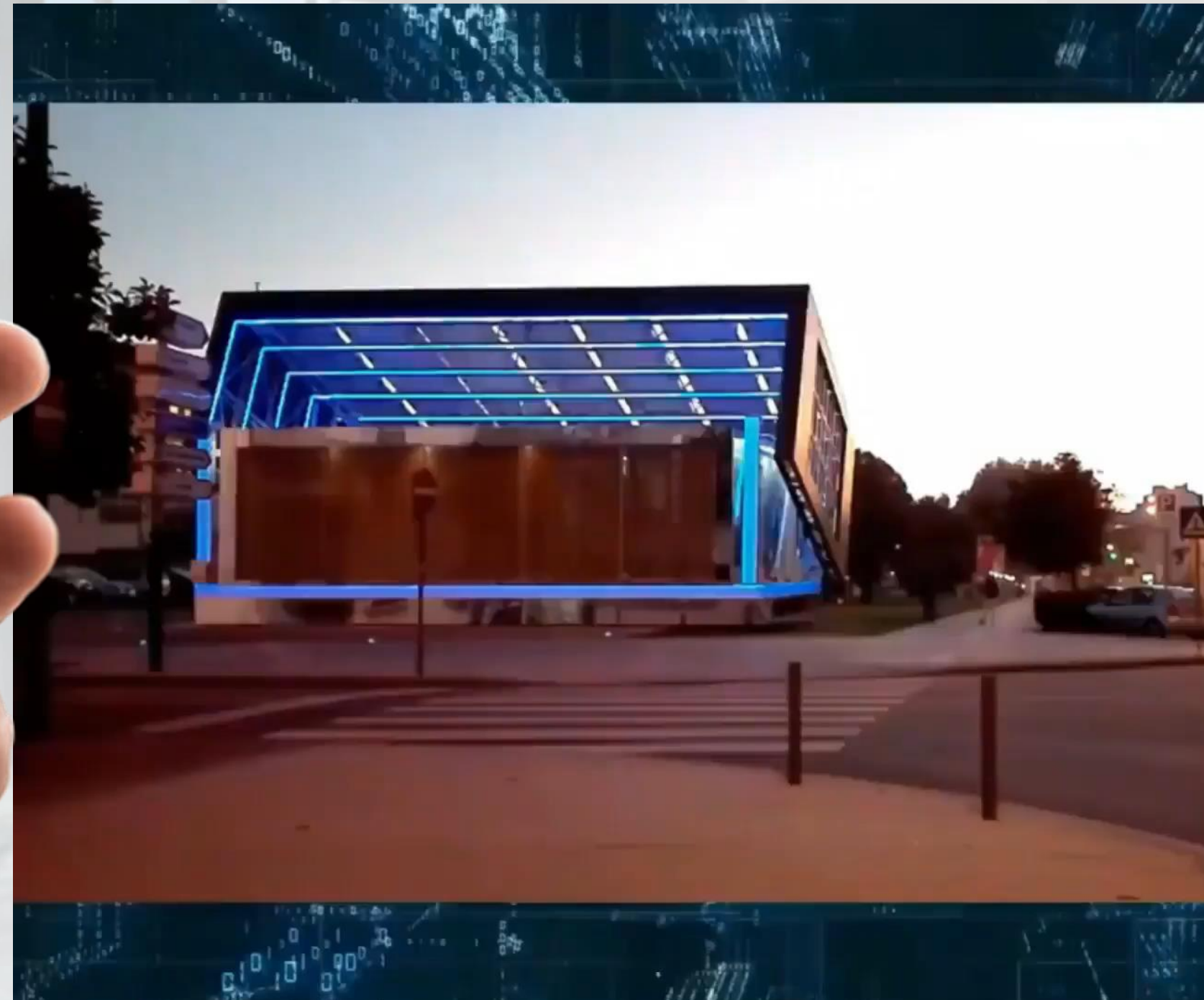


The image shows the interior of a modern building with a glass facade. The structure is composed of a white metal frame with diagonal bracing. Large windows offer a view of a beach and the ocean. A car is visible through the glass. The text 'Buildings In Motion' is overlaid on the right side of the image.

Buildings In Motion

Casas Em Movimento
by Vieira Lopes

Casas Em Movimento



Casas Em Movimento is a Portuguese company (**Spin-off of the Faculty of Architecture of the University of Porto**), with a worldwide patented technology, that **designs, licenses the technology, and markets Buildings In Motion: innovative and energy-positive buildings** that integrate:

- Kinetic Architecture,
- Passive Solar Architecture,
- Smart Architecture
- and much more!...

Casas Em Movimento Our Path



- Founded by Manuel Vieira Lopes, architect;
- More than 10 years dedicated to Research, Development, and Technological Demonstration;
- Technology patented on all continents;
- Positive-Energy building (100% green energy);
- Artificial Intelligence;
- More than 3 million euros invested:
 - ✓ European Funds (R&D)
 - ✓ Private investment
 - ✓ Sponsors | Partners (NORD, BOSCH, IBERDROLA, METALOVIANA, etc.)

2024/25
CEM VL 400 (Luxury)



2024/25
Portugal / Norway



2024
Rio Leça
Network CEM



2023
Viana do Castelo
(PT2020 = 97,57%)



2021
Matosinhos
(Iberdrola)



2017
Matosinhos
Living Lab



2015
Porto
I&DT (QREN)



2012
Madrid
Solar D Europe



Casas Em Movimento Patented Technology



Country / Region	
Germany	Patent Validated.
Angola	Patent Pending.
Australia	Patent Validated.
Belgium	Patent Validated.
Brazil	Patent Validated.
Canada	Patent Validated.
Chile	Patent Validated.
Chine	Patent Validated.
Denmark	Patent Validated.
Emirates	Patent Validated.
Spain	Patent Validated.
USA	Patent Validated.
Finland	Patent Validated.
France	Patent Validated.
Hong-Kong	Patent Validated.
India	Patent Validated.
Ireland	Patent Validated.
Italy	Patent Validated.
South Korea	Patent Validated.
Luxembourg	Patent Validated.
Macau	Patent Validated.
Mexico	Patent Validated.
Mozambique	Patent Pending.
Monaco	Patent Validated.
Norway	Patent Validated.
New Zealand	Patent Validated.
OAPI (Benin, Burkina Faso, Cameroon, Chad, Ivory Coast, Gabon, Guinea, Equatorial Guinea, Guinea-Bissau, Mali, Mauritania, Niger, Central African Republic, Republic of Congo, Senegal and Togo)	Patent Validated.
Netherlands	Patent Validated.
Portugal	Patent Validated.
United Kingdom	Patent Validated.
Sweden	Patent Validated.
Switzerland / Lichtenstein	Patent Validated.

**EUROPÄISCHES PATENT | EUROPEAN PATENT
BREVET EUROPÉEN**

Hiermit wird bescheinigt, dass für die in der Patentschrift beschriebene Erfindung ein europäisches Patent für die in der Patentschrift bezeichneten Vertragsstaaten erteilt worden ist.
It is hereby certified that a European patent has been granted in respect of the invention described in the patent specification for the Contracting States designated in the specification.
Il est certifié par la présente qu'un brevet européen a été délivré pour l'invention décrite dans le fascicule de brevet, pour les États contractants désignés dans le fascicule.

Europäisches Patent Nr. / European patent No. / Brevet européen n°: **EP2891751**
Tag der Bekanntmachung des Hinweis auf die Erteilung des europäischen Patents / Date of publication of the mention of the grant of the European patent / Date de la publication de la mention de la délivrance du brevet européen: **03.08.2022**

AUTOMATED STRUCTURE FOR RECEPTION OF MODULAR CONSTRUCTIONS, AUTOMATION SYSTEM AND OPERATING METHOD THEREOF

Patentinhaber | Proprietor(s) of the patent | Titulaire(s) du brevet:
CASAS EM MOVIMENTO, LDA.
Rua Amaro Lopes, no. 30 r/çhão
Dto.
4440-766 Valongo
PT

António Campino
António Campino
Präsident des Europäischen Patentamts | President of the European Patent Office | Président de l'Office européen des brevets
München, den | Munich, | Munich, le: **03.08.2022**

URKUNDE | CERTIFICATE | CERTIFICAT

EPA/EPO/CEB 2021 04 22

Casas Em Movimento Awards & Validations



	Solar Decathlon Europe €100,000 prize at Solar Decathlon Europe, the largest Innovative and Sustainable Construction event, in Madrid (2012)		Siza Vieira (Pritzker Architect) This Project Should Be Explored From a Market Perspective!
	Innovation Award from the University of Porto Award presented by UP in recognition of the Innovative and Excellence nature of the Casas Em Movimento project		Souto Moura (Pritzker Architect) The World Asks For It, And We Are Pioneers!
	Born From Knowledge Attribution of the Born From Knowledge Award by the National Innovation Agency.		Nuno Portas A Smart Home for Smart People
	Green Project Awards Attribution of the Sustainable Cities and Mobility Award, presented at the Green Project Awards Ceremony.		Web Summit Remote Control of the House in Motion Matosinhos From Web Summit
	Most Incredible Home – Facebook Winners of 'The Most Incredible Home' Vote, Held for Facebook Original Documentary		The Circle Spin-Offs The only Spin-off of the Faculty of Architecture of Porto University
	Chambre de Commerce et industrie Franco-Portugaise Innovation Award from the Franco Portuguese Chamber of Commerce and Industry		Home of the Future - BBC Distinguished as the “Home of the Future” by the BBC
	National Innovation Agency – Certification Recognized by the National Innovation Agency as a company dedicated to Research and Development activities		New European Bauhaus 1 of 14 winners (out of more than 100 European applications) within the scope of the New European Bauhaus

Casas Em Movimento R&D Timeline

Construction Process ->



Programa: PT2020
Nº Projeto: 45.434
NUP: NORTE-01-0247-FEDER-045434
Promotor: CASAS EM MOVIMENTO LDA

Nº da Formalização: 7
Sentido: Favorável

Data da Decisão: 2024-01-19
Competência: IAPMEI
Autor: IAPMEI
Decisão: Aprovado nos termos da proposta

Detalhe do Pagamento
Nº do Pedido de Pagamento: 5
Despesa Certificada: 1.109.749,24

Fundamentação do Sentido:
AVALIAÇÃO DA EXECUÇÃO MATERIAL DO PROJETO

A CASAS EM MOVIMENTO LDA , enquanto spin-off do projeto Lidera da Universidade do Porto, como objetivo de criar uma «arquitetura viva, com uma composição plástica integrada e uma diversidade espacial forte» que se adaptasse à dimensão dos espaços à rotina de quem usa esses espaços, e que tivesse o Sol como fonte de energia e referência do movimento.

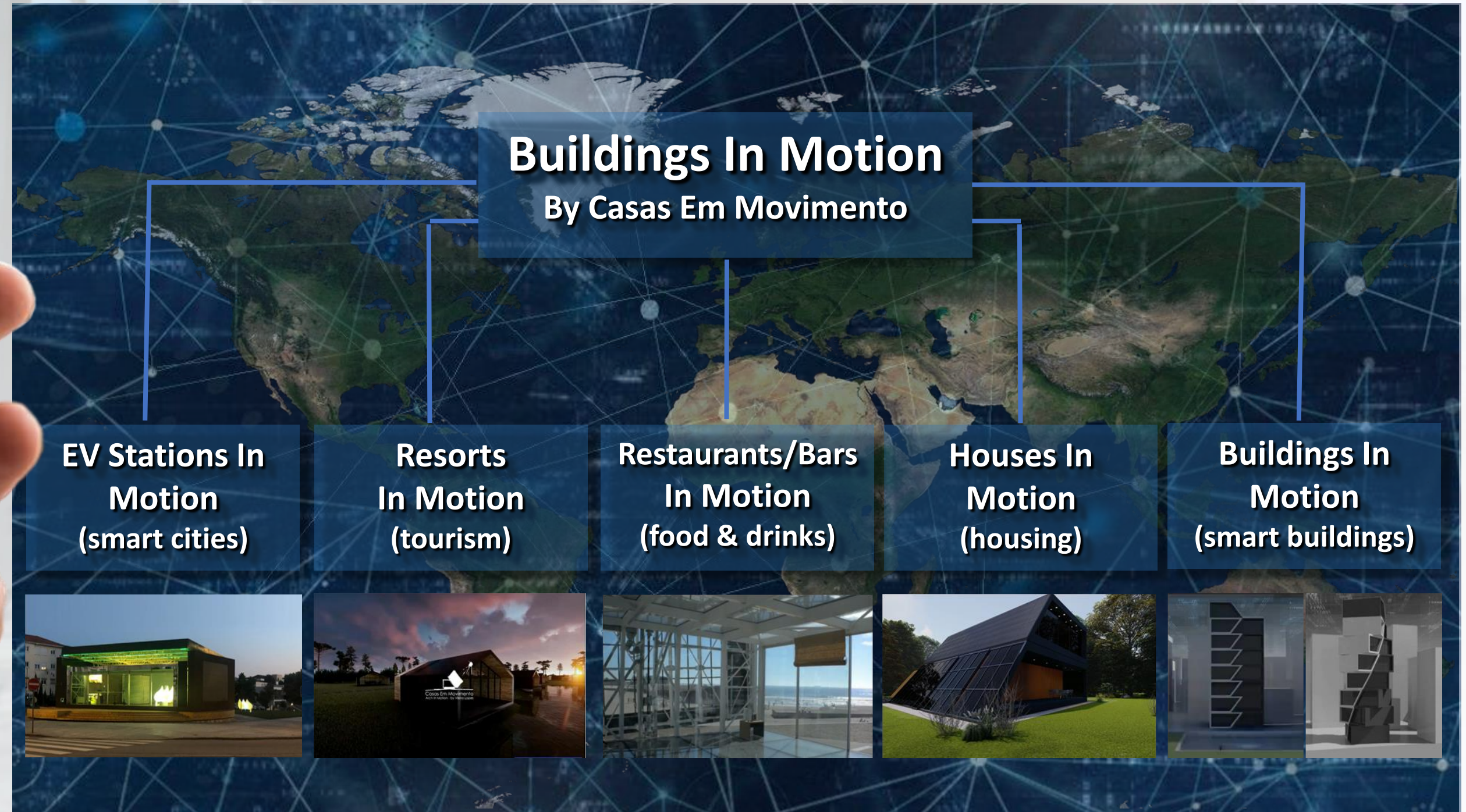
O Pedido de Pagamento Final em apreço, que reporta um grau de **realização de 97,57%**, foi submetido em 29/09/2023. Considerando a data de conclusão do investimento, ocorrida em (30/06/2023) esta submissão foi efetuada dentro do prazo legal estabelecido para o efeito.

**Conclusion
of the
Research &
Development
Project
PT2020**

**Achievement
rate = 97.57%**



Our Vision – Different Market Segments



Resort Casas Em Movimento

www.casasemmovimento.com | www.buildingsinmotion.com

Buildings In Motion:

- ✓ That rotate to follow the Sun!
- ✓ Smart and Interactive!
- ✓ Energy-Positive!

Designed in accordance with the:

- ✓ New Green Deal
- ✓ New European Bauhaus
- ✓ Paris Agreement
- ✓ UN Sustainable Development Goals



Resort In Motion... The Resort of the Future



Show case for the world:	
Nº of Buildings	50
Solar Production	800 000 KWh/year
Reduction of CO2 Emissions	500 tons/year
Expected Consumption	135 000 KWh/year
EVs' Consumption	200 000 KWh/year
Surplus for use in the Resort	465 000 KWh/year
Values for Portugal	



Resort In Motion... The Resort of the Future



Customize your experience:

- Building's Orientation:
 - Automatic (follows the Sun)
 - Manual (with smartphone)
- Feng Shui

- Dynamic Space configurations;
- Different interior designs;
- Different materials;

- Illumination;
- Music;
- Temperature;

Luxury Houses In Motion

www.casasemmovimento.com | www.buildingsinmotion.com

Buildings In Motion:

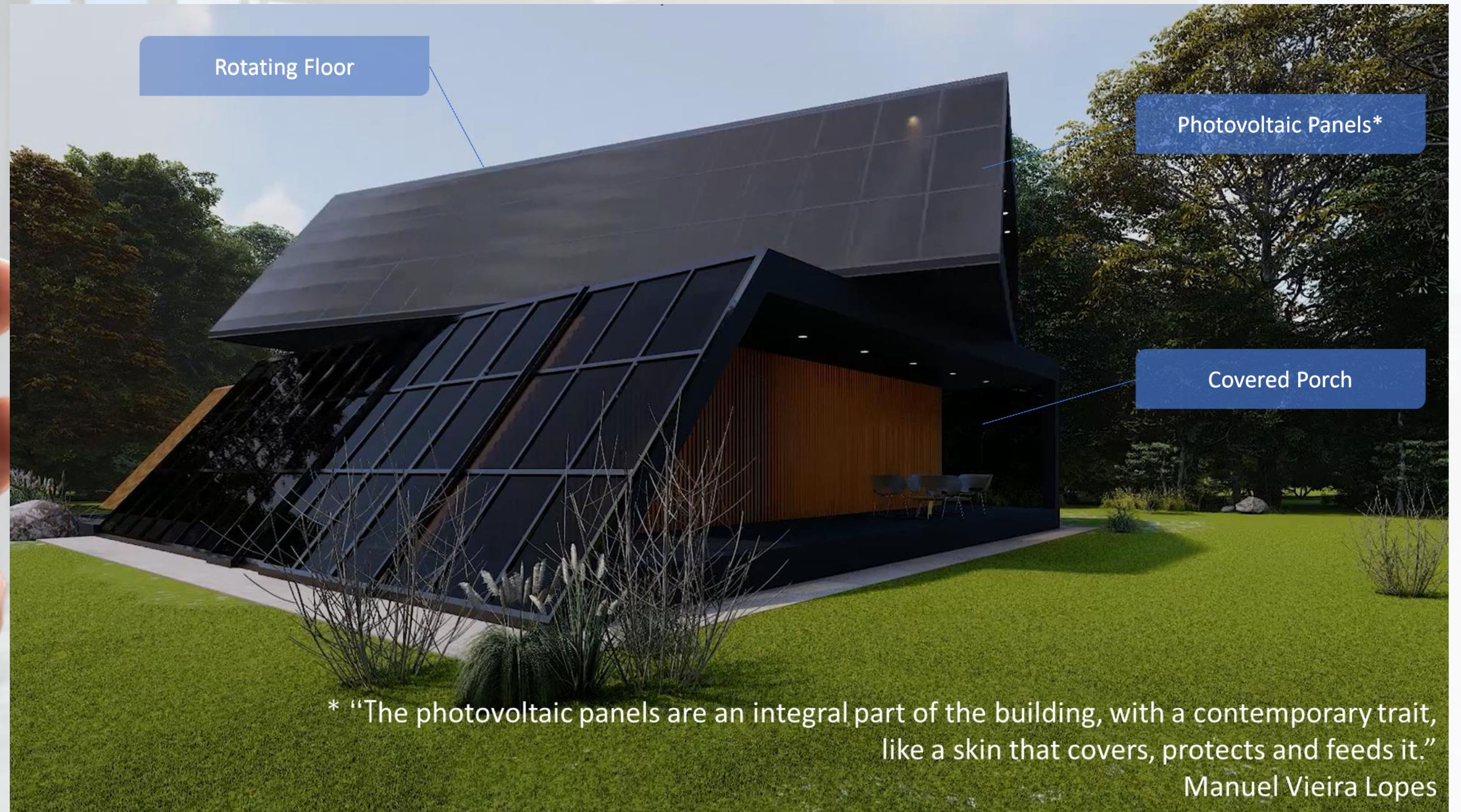
- ✓ That rotate to follow the Sun!
- ✓ Smart and Interactive!
- ✓ Energy-Positive!

Designed in accordance with the:

- ✓ New Green Deal
- ✓ New European Bauhaus
- ✓ Paris Agreement
- ✓ UN Sustainable Development Goals



Houses In Motion for the World



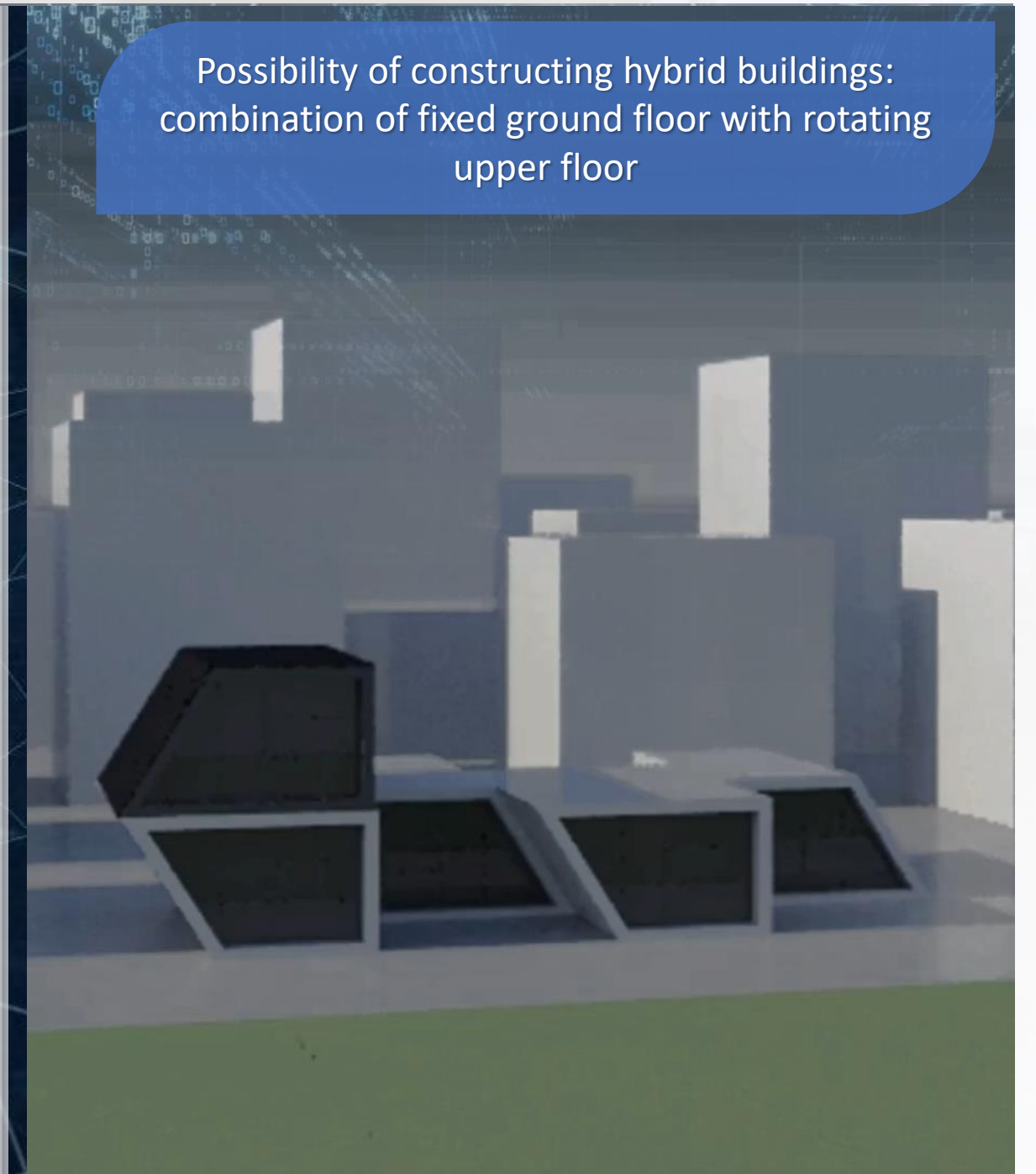
Houses In Motion for the World



Houses In Motion for the World



Possibility of constructing hybrid buildings:
combination of fixed ground floor with rotating
upper floor



Restaurants In Motion

www.casasemmovimento.com | www.buildingsinmotion.com

Buildings In Motion:

- ✓ That rotate to follow the Sun!
- ✓ Smart and Interactive!
- ✓ Energy-Positive!

Designed in accordance with the:

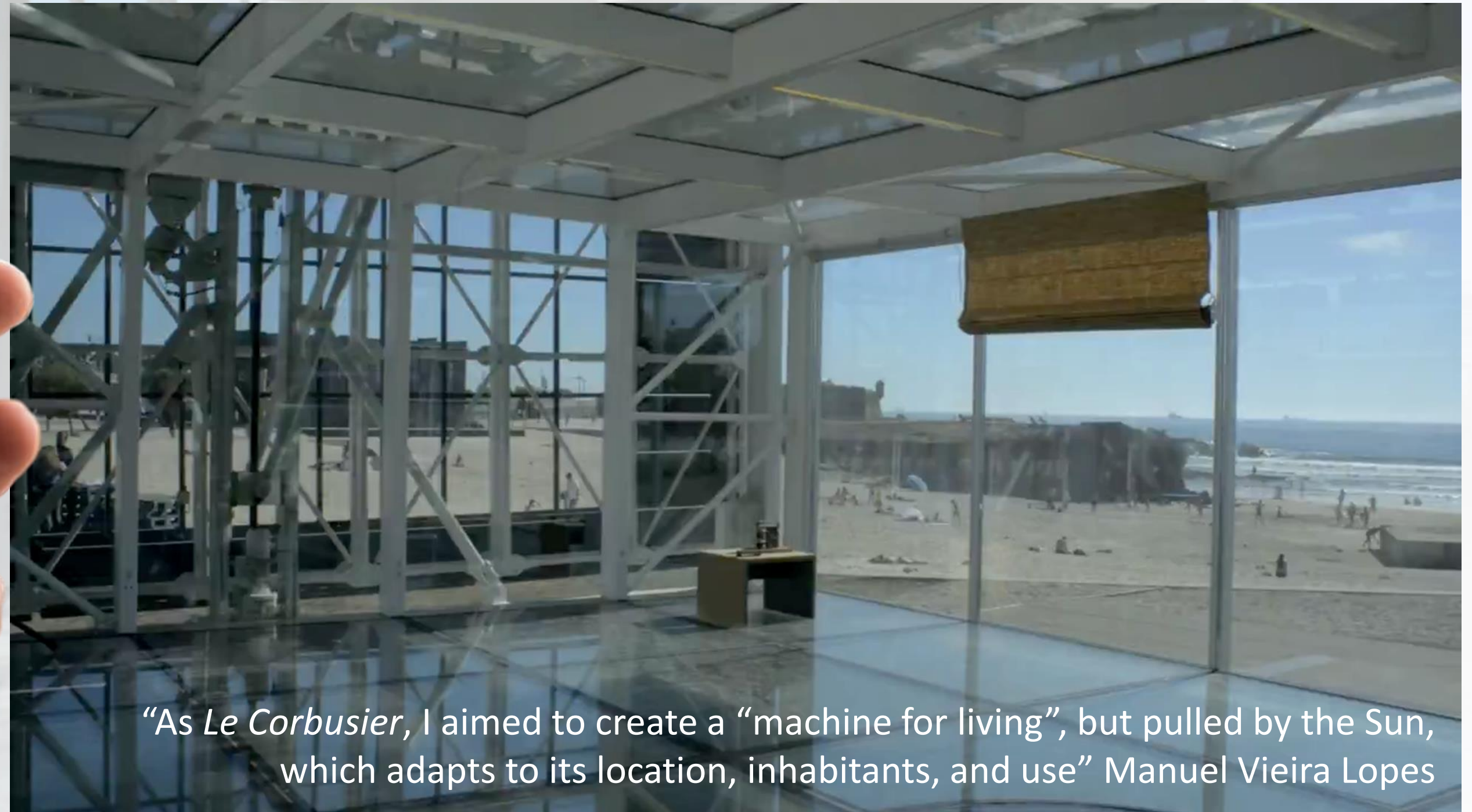
- ✓ New Green Deal
- ✓ New European Bauhaus
- ✓ Paris Agreement
- ✓ UN Sustainable Development Goals



Our Vision Buildings In Motion



Our Vision Buildings In Motion



“As *Le Corbusier*, I aimed to create a “machine for living”, but pulled by the Sun, which adapts to its location, inhabitants, and use” Manuel Vieira Lopes

Smart Cities In Motion

www.casasemmovimento.com | www.buildingsinmotion.com

Buildings In Motion:

- ✓ That rotate to follow the Sun!
- ✓ Smart and Interactive!
- ✓ Energy-Positive!

Designed in accordance with the:

- ✓ New Green Deal
- ✓ New European Bauhaus
- ✓ Paris Agreement
- ✓ UN Sustainable Development Goals



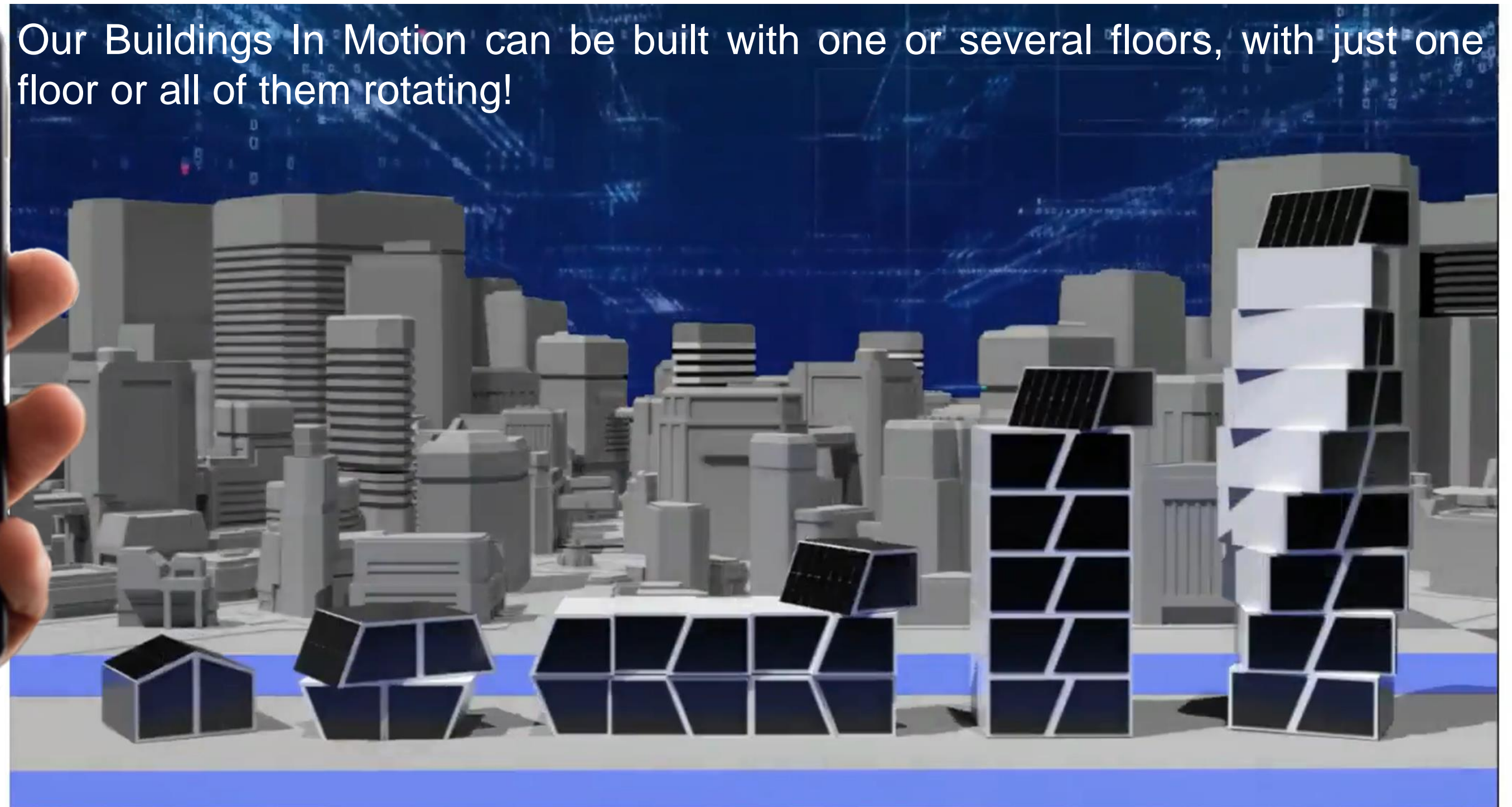
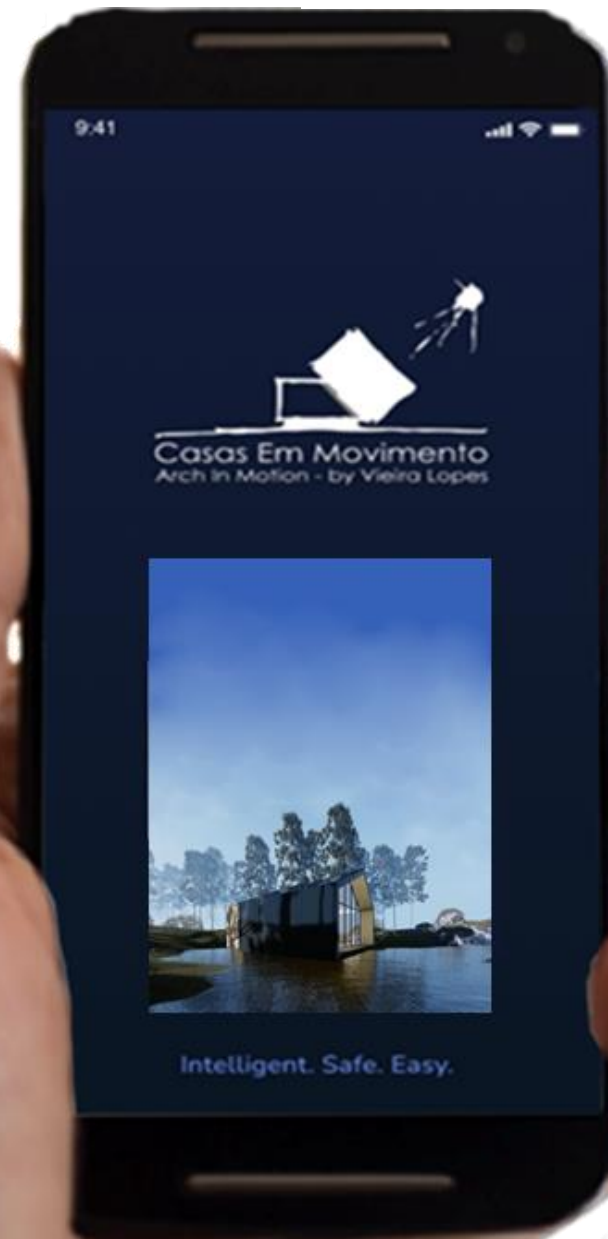
Our Startup Approval by New European Bauhaus



Buildings In Motion by Casas Em Movimento



Our Buildings In Motion can be built with one or several floors, with just one floor or all of them rotating!



Buildings In Motion

www.casasemmovimento.com

www.buildingsinmotion.com