



SMART AND SUSTAINABLE CITIES – INFRAVIA® SYSTEM Dr. ALOISIO PEREIRA DA SILVA



IS A SMART CITY?

SMARTCITY EXPO WORLD CONGRESS

MOBILITY

ITERATIVITY

EFFICIENCY

URBAN PLANNING

ACCESSIBILITY

SUSTAINABILITY

INTEGRATION

QUALITY OF LIFE

CONNECTIVITY

TECHNOLOGY

CREATIVITY

INNOVATION

IS NOT RESTRICTED ONLY TO THE CONCEPT OF "CONNECTED CITY"

BUT TODAY,



IS OUR INFRASTRUCTURE FIT FOR A SMART CITY?





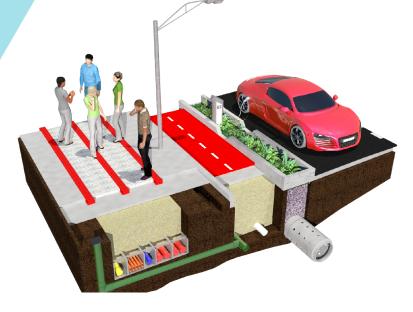
- No coordination with urban planning
- Without standardization of underground space
- •No coordination between utility concessionaires
- Unknown and unsafe underground
- Installations located mainly under the street
- •Only in the UK: 4 million holes / 7 billion pounds per year in direct and indirect costs





INFRAVIA® SYSTEM

Next Generation Infrastructure and Sustainable Mobility for Smart Cities

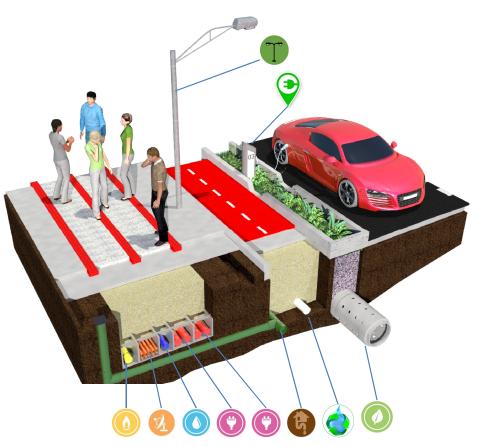


"Simplicity is the ultimate sophistication" Leonardo da Vinci



INFRAVIA® SYSTEM





- Integrates urban planning with networks
- No more networks under the streets
- All networks in an orderly and secure place
- Structure of recycled plastic produced through urban waste
- "Zero waste" concept
- Construction of accessible sidewalks and bike lanes
- Green infrastructure for drainage
- Integrated and efficient management

INFRAVIA® SYSTEM



Research and projects: Started in 2007

Location: Technologic Park "Sapiens Parque" - Brazil

Production of the components: 2015 / Construction: 2016









Pilot results:

Reduces construction costs by **30%** and maintenance and operation costs by **70%**













https://www.youtube.com/watch?v=15ua-_G6ATo&t=107s&pbjreload=10

HIGH-LEVEL TECHNICAL DEVELOPMENT SMARTCITY EXPO WORLD CONGRESS



Brazilian standard about the theme

Highlight in specialized magazines and international awards

NORMA ABNT NBR BRASILEIRA 16584 Primeira edição 07.04.2017 Galeria técnica pré-moldada em concreto para compartilhamento de infraestrutura e ordenamento do subsolo — Requisitos e métodos de ensaios Precast concrete technical gallery to share and order the underground systems — Requirements and test methods



Companies and institutions that participated or participate in the research of the INFRAVIA® System



















DO MORE.





























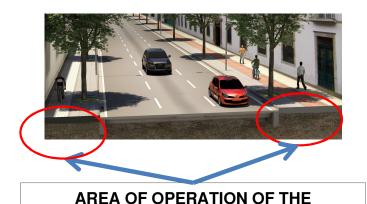




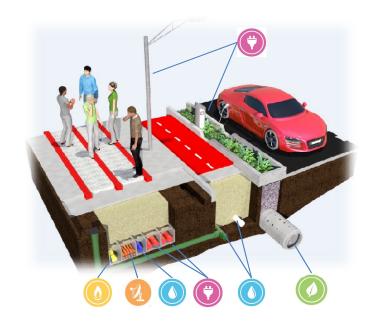
GOVERNANCE AND MANAGEMENT MODEL



- Creation of a "entity" for the centralized management
- Private partners and government (PPP)
- May have the participation of the concessionaires
- "New concessionaire": construction and maintenance
- Current infrastructure concessionaires: rent structure and operation



"NEW CONCESSIONAIRE"



CONCESSIONAIRES

0 NATURAL GAS

TELECOM / TV / DATA

WATER / SEWER

ELECTRICITY
/STREET LIGHTING /

DRAINAGE

EVERYONE WINS!



Municipality:

- Reduced costs No holes in the streets
- Use of urban waste as raw material Revenue
- Percentage of revenue from the integrated system

Dealers / Concessionaries:

- Reduction in construction and operation costs
- Focus on business and consumers
- No more initial investments.

Investors:

- New Business and Opportunities
- Modular and scalable business
- Circular Economy
- INFRAVIA® System can be used in ANY CITY in the world. (standard)



Society:

- Transparency in resource management
- Accessible sidewalks and bike lanes
- Sustainability

WHY IS NOT INFRAVIA® SYSTEM EVERYWHERE?



- Fear of innovation.
- Lack of planning culture.
- Lack of transparency in information.
- Lack of communication between government and concessionaires.

So, let's start to innovate with responsibility? We can help!

Thank you

SMARTCITY EXPO WORLD CONGRESS



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