

POWERBIM

DIGITAL TWIN PLATFORM BIM BASED FOR ASSET LIFECYCLE PERFORMANCE
SMART BUILDINGS INTEGRATED IN SMART CITIES

powerbim.com



CYBERPHISICAL DATA VALUE CHAIN ECOSYSTEM
FOR SMARTER AND MORE SUSTAINABLE ASSETS



FERNANDO MORALES TOSAR
CEO & Digital Innovation Manager. POWERBIM / BIM6D

- Architect / Bim Manager ACP excellence
- Expert in Sustainability and Energy Efficiency
- +15 years of experience in AECO sector
- +5 years of experience in DIGITALTWINs – POWERBIM product



**AUTODESK
FORGE®**
Certified Systems
Integrator

POWERBIM

DIGITALTWIN PLATFORM COMPANY FOR LIFECCYLE ASSET MANAGEMENT – 10 PEOPLE

POWERBIM IS A CLOUD SCALABLE DIGITALTWIN PLATFORM FOR BUILDINGS AND CITIES BASED IN BIM + DATA ANALYTICS
BIM6D IS THE DIGITALIZATION SERVICES COMPANY ABLE TO COMPLEMENT POWERBIM WHEN NEEDED

KEY POWERBIM TEAM MEMBERS:



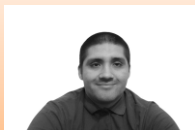
Juan. CTO
-Infrastructure
-Full Stack Developer



Gonzalo.
-Product Manager
-Architect. VR spec.



Roman.
-Software Developer
-System Analyst



Brandon. CTO
-Data Science
-Full Stack Developer

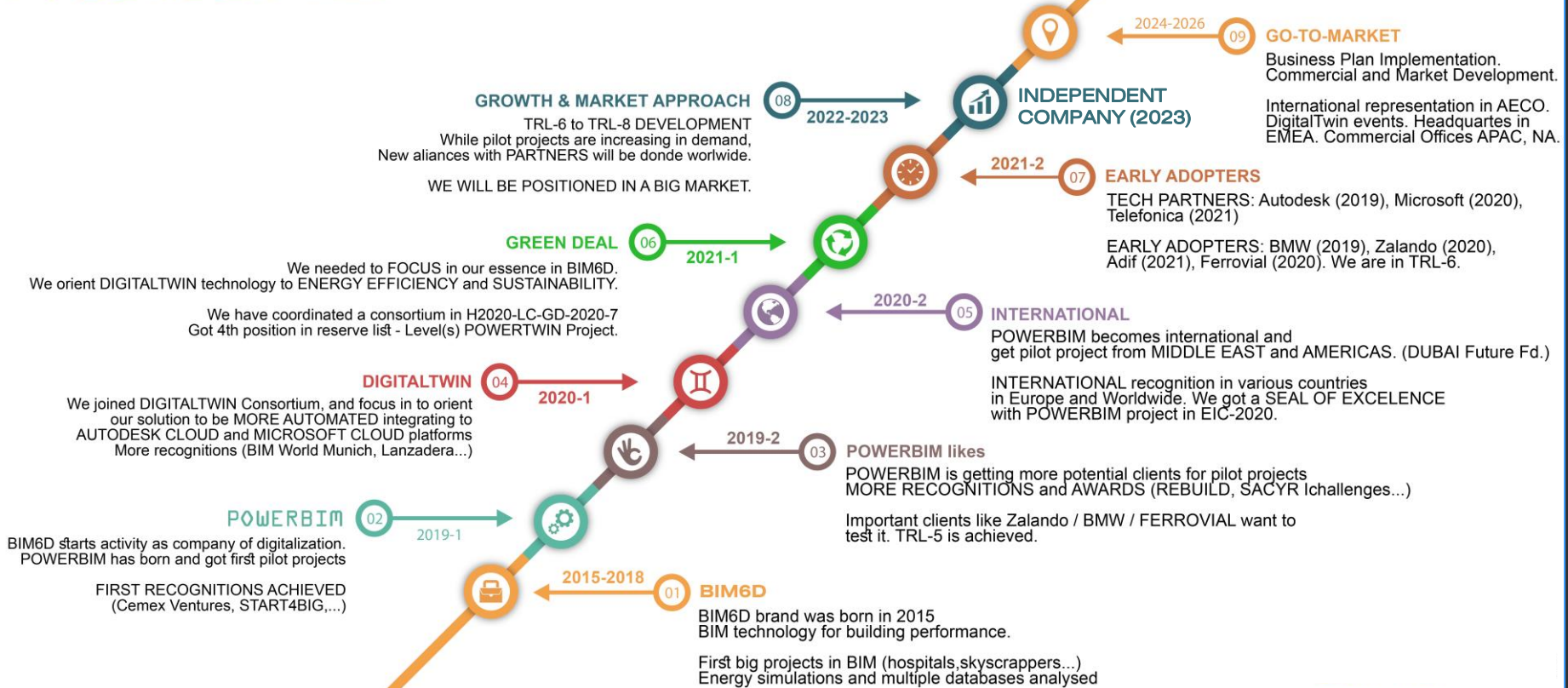


Pablo.
-BIM developer
-BIM Manager



Renzo.
-BIM developer
-BIM Manager

POWERBIM[®] TIMELINE



TIMELINE WITH A SUMMARY OF PAST, PRESENT AND FUTURE

40%

OF ENERGY CONSUMPTION BY
BUILDINGS

93%

OF EUROPEANS CONSIDER
CLIMATE CHANGE IS A
SERIOUS PROBLEM

EACH HOME IN EUROPE
PRODUCES

10tn of CO₂

AND DEMAND

75Kwh/m²

OF PRIMARY ENERGY WHEN
GOAL IS TO ACHIEVE

35Kwh/m²



*CLIMATE CHANGE IS THE BIG PROBLEM TO SOLVE
BUILDINGS ARE RESPONSIBLE OF 40% OF CARBON EMISSIONS
TECHNOLOGIES AND STAKEHOLDERS NEED TO BE INTEGRATED TROUGH DATA*

POWERBIM

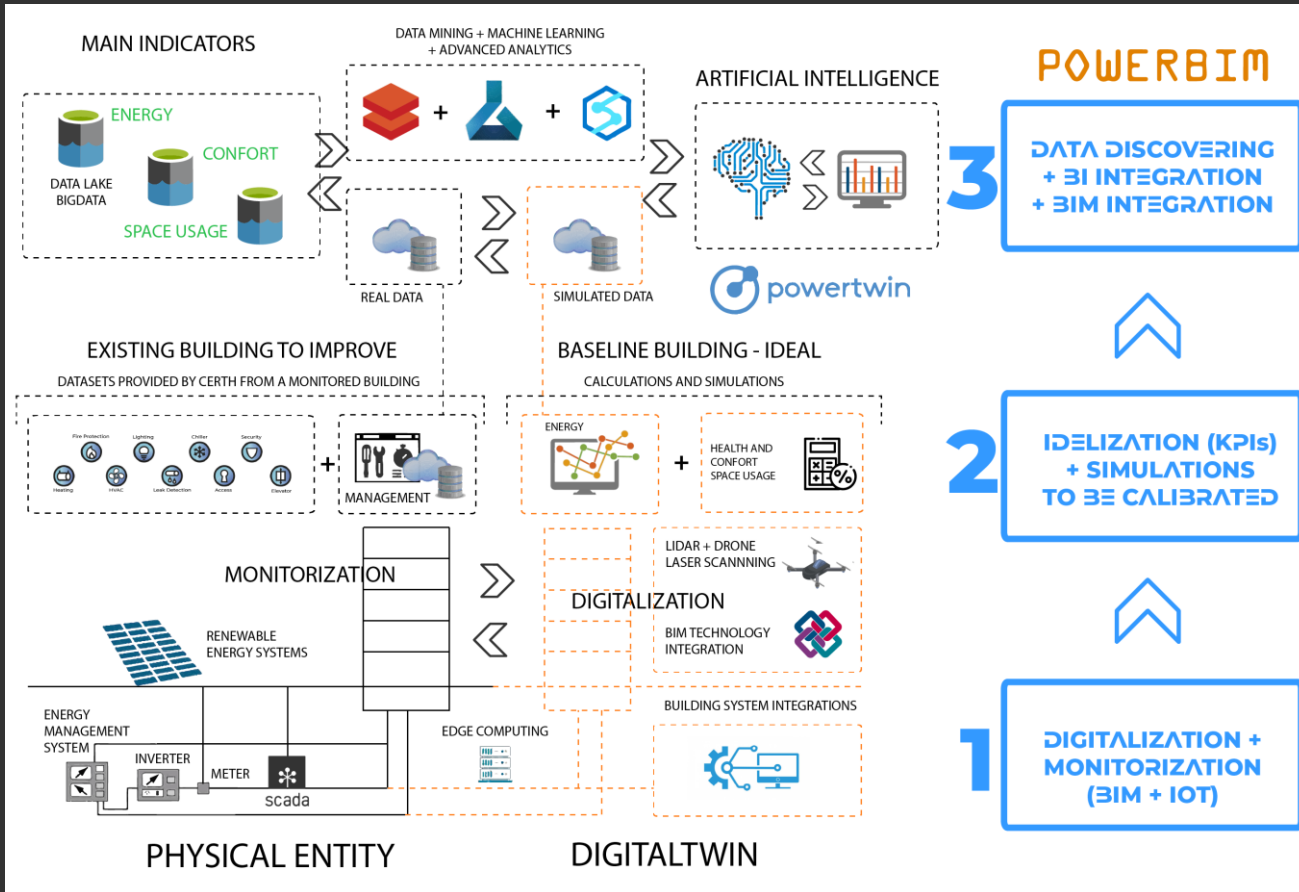
20Kwh/m2
FOR PRIMARY ENERGY

30%
CO2 REDUCTION

30%
WASTE REDUCTION IN
CONSTRUCTION

30%
COST REDUCTION

30%
IMPROVEMENT
OPERATIONAL
PROCESSES



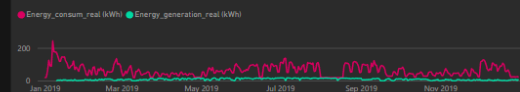
WE INTEGRATE DIGITALTWIN SOLUTION TO RETROFITTING AND NEW CONSTRUCTION BUILDINGS, SIMULATING BIM MODELS AND ENERGY GENERATION, SUSTAINABILITY INDICATORS AND ARTIFICIAL INTELLIGENCE.

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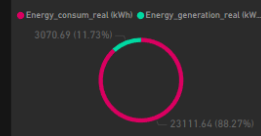


ENERGY BALANCE

ENERGY CONSUMPTION VS GENERATION



ENERGY CONSUMPTION VS GENERATION



ENERGY CONSUMPTION

23,111.64
Energy_consum_real (kWh)

ENERGY GENERATION

3,070.69
Energy_generation_real (kWh)

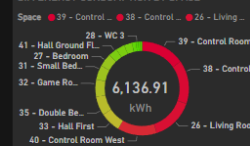
ENERGY BALANCE (kWh)

20,040.95

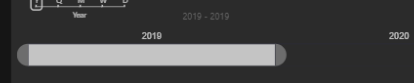
REAL ENERGY CONSUMPTION BY SPACE



SIM ENERGY CONSUMPTION BY SPACE



Q M W D



CONSUMPTIONS

ENERGY BALANCE

WEATHER

SPACES

- 26 - Living Room
- 27 - Bedroom
- 28 - WC 3
- 29 - WC 1
- 30 - WC 2
- 31 - Small Bedroom
- 32 - Game Room
- 33 - Hall First Floor
- 34 - Bathroom Up
- 35 - Double Bedroom
- 36 - Engine Room
- 38 - Control Room East
- 39 - Control Room Up
- 40 - Control Room West
- 41 - Hall Ground Floor
- 42 - Stairs

NUM. VALUES

34992

SPACES

20

SENSOR / DISPOSITIVO PRUEBA 3

temperature

29.00



energy

0.37



humidity

76.00



co2

72.00



voc

271.00



occupancy

3.00



412 - EU031 - Metabuilding - wellBIM_IFCA_2022_1R
20220718_210218_P81M_MENU_WELLBIM
Page: IAQ

IAQ INDEX

AIR QUALITY (IAQ_INDEX)
Temperature: 200
Humidity: 36.00
Saturation: 36.00
Humidity: 4.00
CO2: 1000

WEB LINK
<https://bim6d.eu/portfolio/wellbim-metabuilding-project/>

metabuilding

Financiado por la Unión Europea
NextGenerationEU

Plan de Recuperación, Transformación y Resiliencia

51C-M3-A-R2021-1R
20220727_155958_P81M_REPORT1E
Page: EQUIPOS

HOSPITALES 4.0
48.14%

WEB LINK
<https://bim6d.eu/portfolio/hospitales-4-0/>

22039_GAIA_UPC
20220509_150718_P81M_F_PowerTwin
Page: CONSUMOS

CONSUMOS

CONSUMOS REAL VS ESTIMADO EN FUNCION DE LA OCUPACION

CONSUMOS REAL VS ESTIMADO

WEB LINK
<https://bim6d.eu/portfolio/powerwin-aei-2023/>

URJC

75.00

VIDEO LINK
<https://vimeo.com/1576750469>

Financiado por la Unión Europea
NextGenerationEU

Plan de Recuperación, Transformación y Resiliencia

**MORE THAN 50 DIGITALTWIN PROJECTS
RESEARCH AND DEVELOPMENT PROJECTS / UNIVERSITIES**

POWERBIM

<https://powerbim.com>

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THANK YOU !!

