



XIII SEMANA DA REABILITAÇÃO URBANA

3 - 5 MARÇO 2026
LISBOA SOCIAL MITRA

Rui Gavina

Engenheiro Civil

Professor do DEC - ISEP/ ISEP

BIM

BIM enquanto infraestrutura de dados do edificado

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Engenheiro Civil
Professor do DEC - ISEP/ ISEP
BIM



- ✓ **B**uilding **I**nformation **M**odel
- ✓ **B**uilding **I**nformation **M**odeling
- ✓ **B**uilding **I**nformation **M**anagement

✓ **I**nformation **M**anagement



Enquadramento do BIM em Portugal

- **Portaria 255/2023**

Introduz BIM na elaboração de projetos de obras públicas

- **Decreto-Lei 10/2024**

Modelos digitais paramétricos (BIM) obrigatórios em licenciamentos a partir de **2030**



DIÁRIO
DA REPÚBLICA

- **Estratégia nacional PortugalBIM (2025)**

Definição da estratégia nacional de implementação

- **Crescente inclusão de requisitos BIM em contratos públicos**

ENQUADRAMENTO EM PORTUGAL



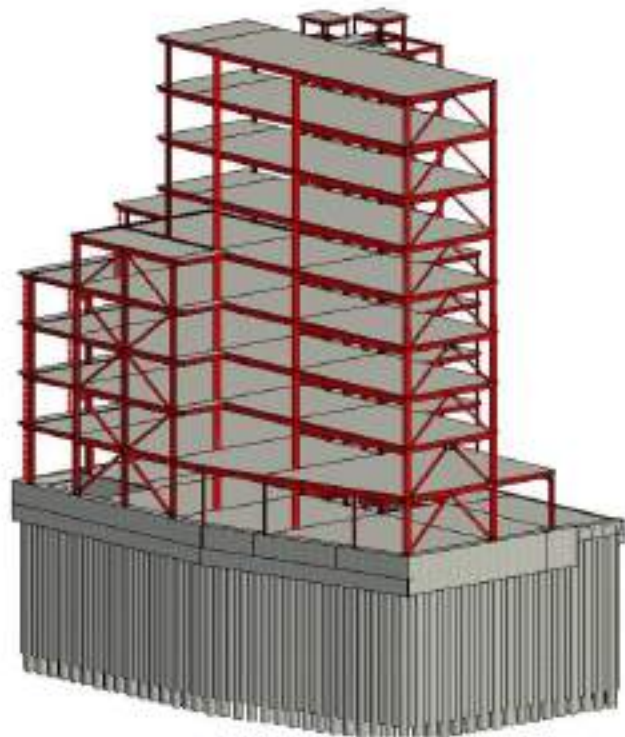
Criada em março de 2015



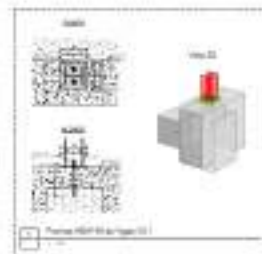
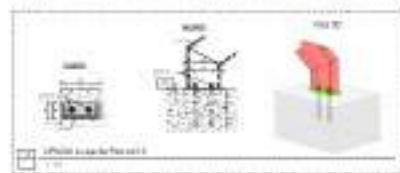
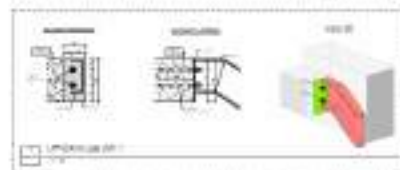
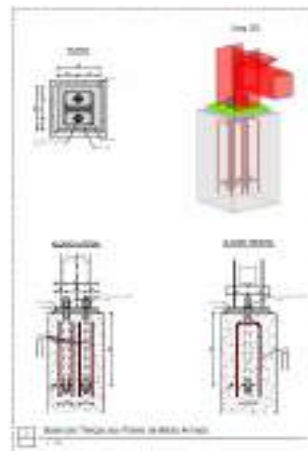
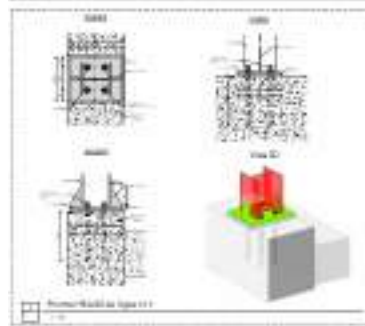
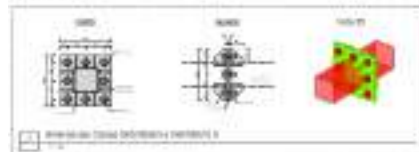
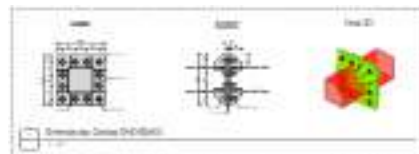
International
Organization for
Standardization



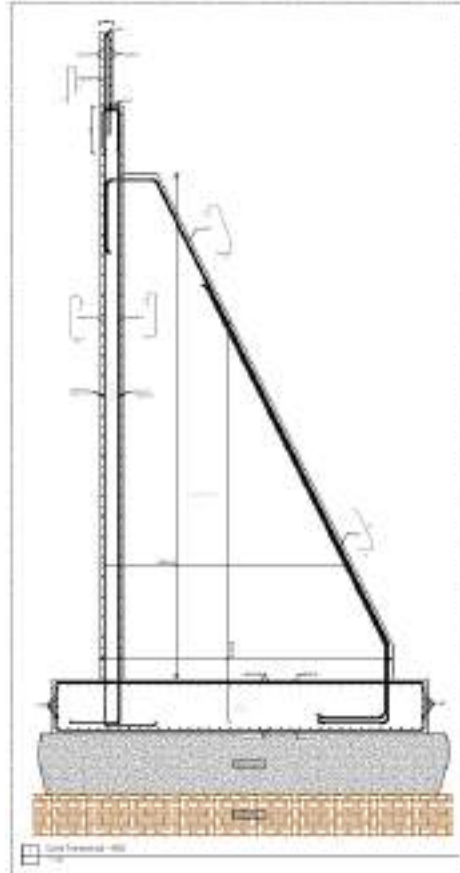
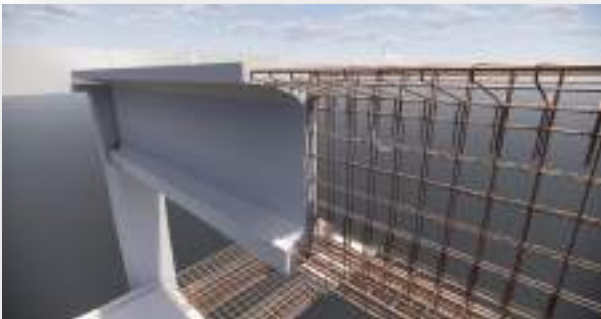
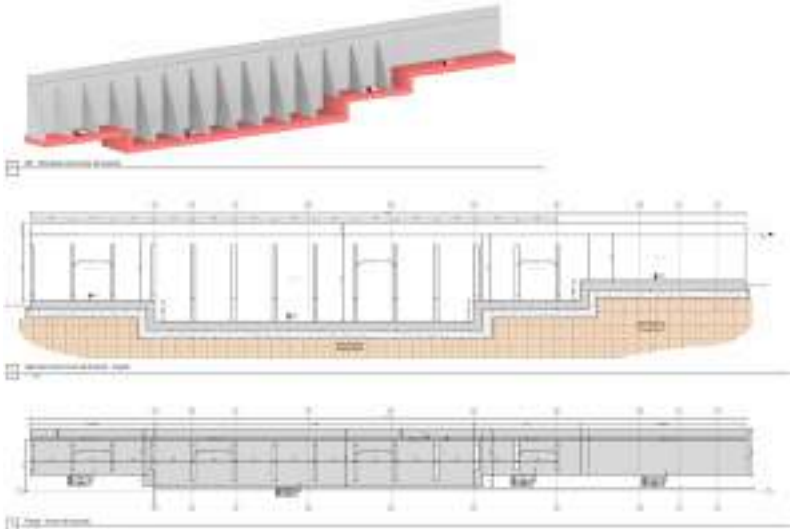
O LADO MAIS VISÍVEL DO BIM



VN2R



O LADO MAIS VISÍVEL DO BIM



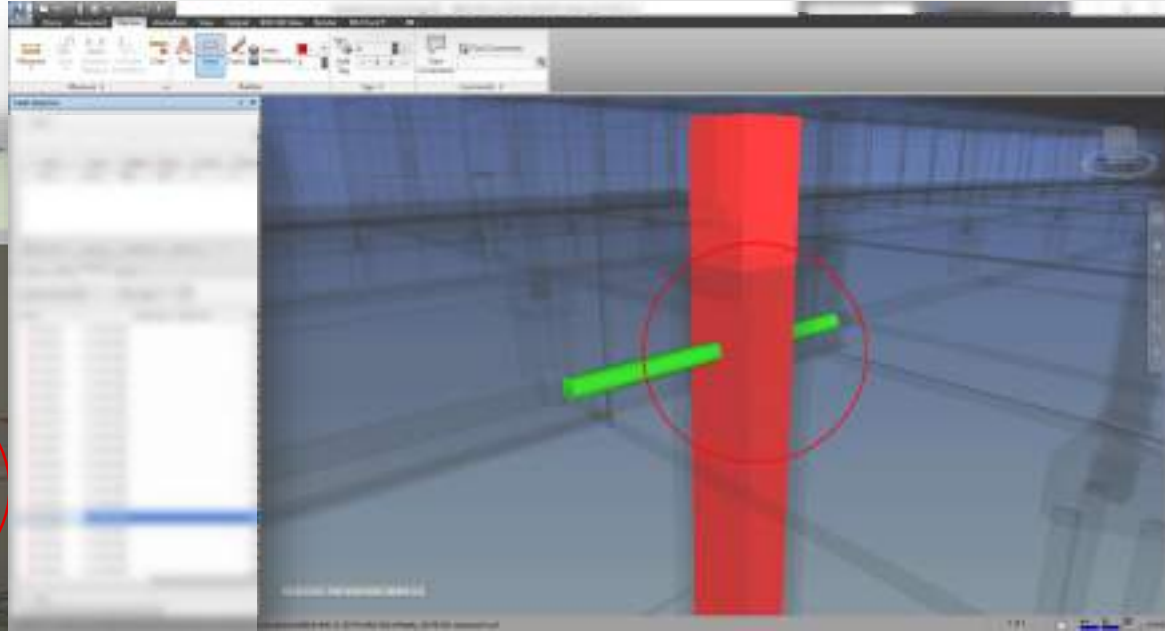
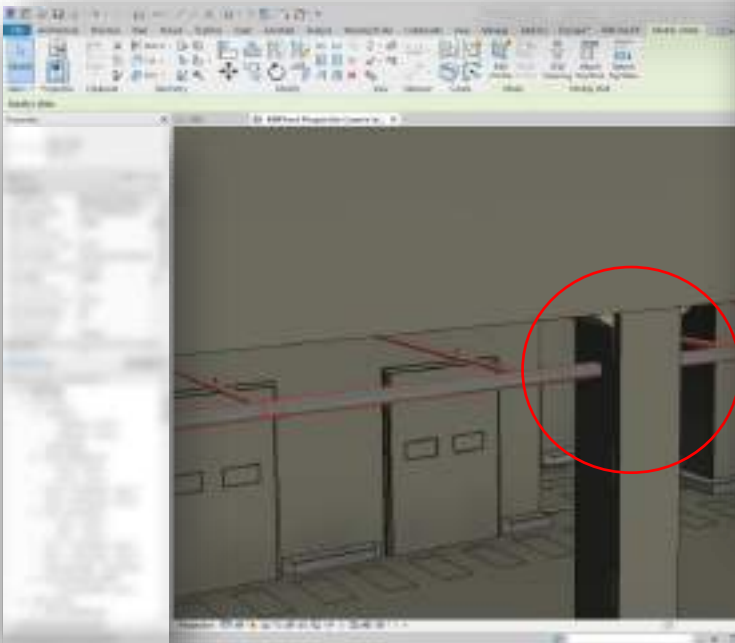
VN2R
redefining boundaries

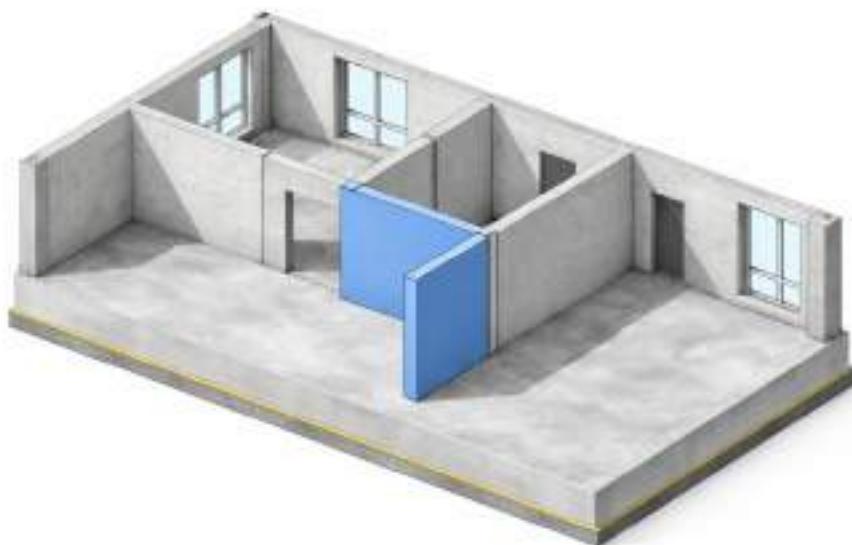
O LADO MAIS VISÍVEL DO BIM



VN2R

redefining boundaries





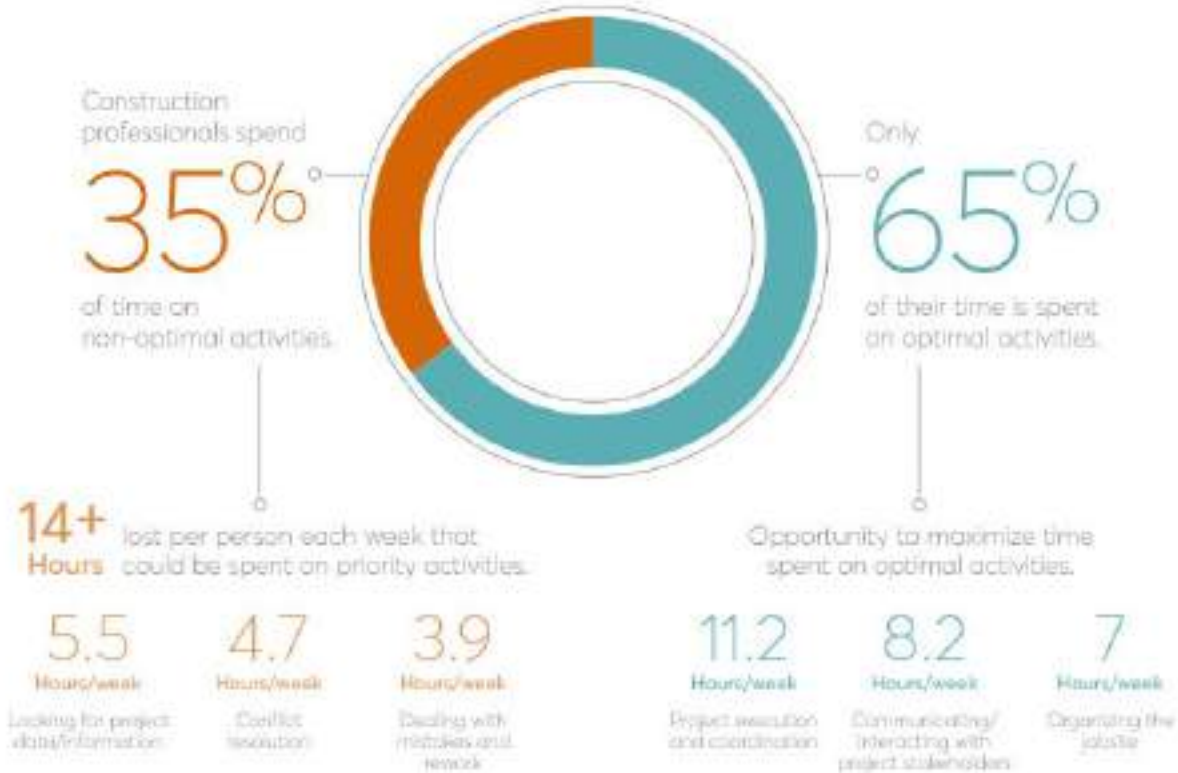
Modelo BIM

Propriedades do Objeto

BIM

Tipo:	Parede (Interior)
Código:	W-INT-200
Espessura:	0,20 m
Altura:	3,00 m
Composição:	Reboco 15mm Tijolo 170mm Reboco 15mm
Materiais:	Reboco / Tijolo Cerâmico
Resistência ao Fogo:	El 60
Coef. U (W/m²K):	0,45
Custo:	45 €/m²
Fabricante:	— / Catálogo genérico
Data de Instalação:	—
Notas:	Requer pintura Classe II

O PROBLEMA DA INFORMAÇÃO



PlanGrid & FMI (2018). *Construction Disconnected: Rethinking the Management of Project Data and Mobile Collaboration to Reduce Costs and Improve Schedules. Industry Report, 2018.*

Informação inconsistente

Projeto A

Parede

Altura: 3 m

Resistência ao fogo: rei90

Custo: 45 €/m²

Projeto B

Parede exterior

h = 3000

RF = REI 90

cost: 45

Informação normalizada





**Dados não
tratados**



**Dados
estruturados**



**Dados
relacionados**

ANÁLISE DE DADOS

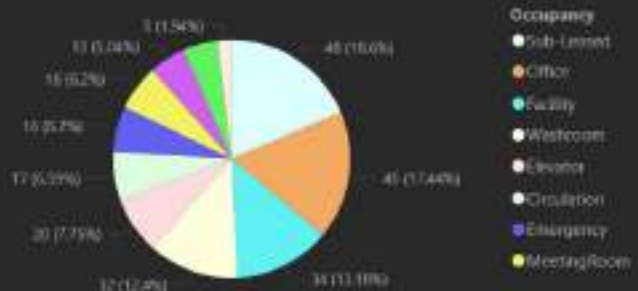


VCAD Level: **All** Occupancy: **All**

Asset List

name	Perimeter (m)	Area (m ²)	Volume (m ³)
Cubicles 4000-09 [806432]	55.774	129.272	394.021
Cubicles 4019-39 [806402]	62.297	181.883	540.654
Cubicles 4042-63 [806652]	64.774	258.316	781.864
Cubicles 4065-74 [806436]	55.277	91.608	276.540
Cubicles 4083-122 [811481]	82.992	318.949	972.150
Cubicles 5000-12 [796293]	55.774	129.272	394.021
Cubicles 5025-48 [796908]	84.747	258.334	781.794
Cubicles 5052-64 [796142]	41.336	110.101	336.589
Cubicles 5074-82 [796985]	64.815	150.360	456.726
Cubicles 6000-11 [804350]	55.772	129.266	394.001
Cubicles 6021-37 [804251]	55.981	161.047	490.872
Cubicles 6047-66 [804598]	93.371	219.324	645.924
De Vinci Meeting Room 5501 [796811]	22.458	25.377	76.359
Elevator [801688]	9.131	5.158	15.720

Count of Area (m²) by Occupancy



ANÁLISE DE DADOS



RE
LIB
OA

VCAD

507.20

Concrete (m³)

1.67K

Brick (m³)

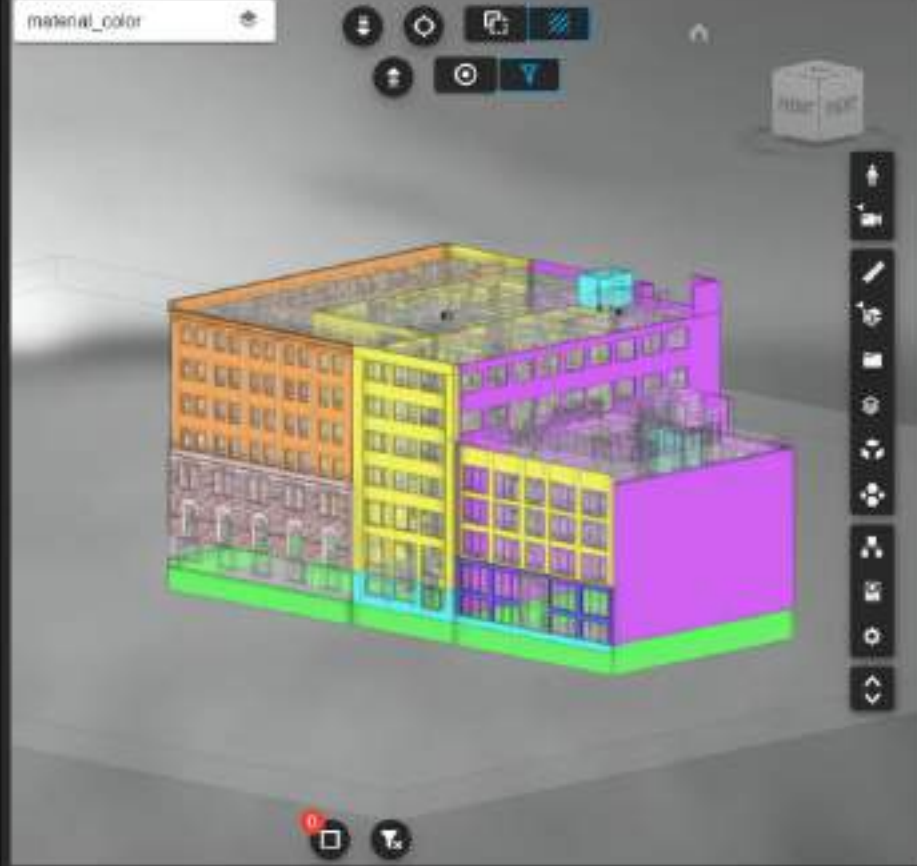
Asset List

Name	Structural Material	Volume (m³)
Basic Wall [176552]	Masonry - Brick-BLDG 1-King Facade - Sleekup-15"	76.13
Basic Wall [181305]	Masonry - Brick-BLDG 1-King Facade - Sleekup-15"	118.25
Basic Wall [196230]	Masonry - Brick-BLDG 1-King Facade - Sleekup-15"	13.62
Basic Wall [239670]	Masonry - Brick	38.78
Basic Wall [237815]	Masonry - Brick	45.00
Basic Wall [239636]	Masonry - Brick	26.97
Basic Wall [238705]	Masonry - Brick	117.74
Basic Wall [238823]	Masonry - Brick	41.27
Basic Wall [239390]	Masonry - Brick	85.76
Basic Wall [239648]	Masonry - Brick	21.42
Basic Wall [239848]	Masonry - Brick	15.86
Basic Wall [242224]	Masonry - Brick	14.02
Basic Wall [242345]	Masonry - Brick	62.09
Basic Wall [242592]	Masonry - Brick	27.96

Volume (m³) by Structural Material



material_color



INICIATIVA WBS - buildingSMART Portugal



LABORATÓRIO NACIONAL
DE ENGENHARIA CIVIL



Work
Breakdown
Structure

WBS

PROPOSTA DE ARTICULADO
PARA O MAPA DE QUANTIDADES
E TRABALHOS (MQT)

v01 12/2018

ACA

Fábio Araújo
Ofélia Araújo

A400

António Monteiro
Diogo Teixeira
Tiago Campelo

TOPBIM

Miguel Pires
Pedro Carneiro

**CONSERVATION
PRACTICE**
CONSERVATION PRACTICE

António Soares
Cristina Pedrosa

iscte

Ricardo Pontes Resende

KTU

Carlos Gonçalves

LIMSEN

Filipe Lima
Laura Almeida
Sebastian Roux

LISBOASRU

André Mendes

ANEK

António Cabaço
Paula Couto

MAGNETICO

Marta Campos

MOTAENGIL

Ana Lirio
António Hipólito
Pedro Tomás

newton

José Carlos Lino

NLA

Teresa Afonso
Vasco Leal
Vasco Leonidas



QUADRANTE

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Ricardo Cunha
Susana Duarte

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PROJECT SOLUTION

Rita Andrade

WALNUT
DESIGN + BUILD

Ricardo Simões

xispoli

Ricardo Reis

tpf

Fernando Araújo

José Cruz

Luís Ribeiro

Miguel Sileira

Óscar Vieira

Pedro Monteiro

Rafael Espírito Santo

Sofia Henriques

Susana Freitas



Universidade da Beira

Andressa Oliveira

José Granja

Miguel Azenha

ATIVOS EXIGEM MANUTENÇÃO



ATIVO FÍSICO



ATIVO DIGITAL





buildingSMART INTERNATIONAL SUMMIT

PORTO, PORTUGAL

24-26 MARCH, 2026

#bSSPorto26

