

POLITECNICO DI MILANO

Department of Architecture, Built Environment and Construction Engineering
Real Estate Center



ERES 2021

How Higher Education Prepares Workplace Managers. A New Discipline Wanted

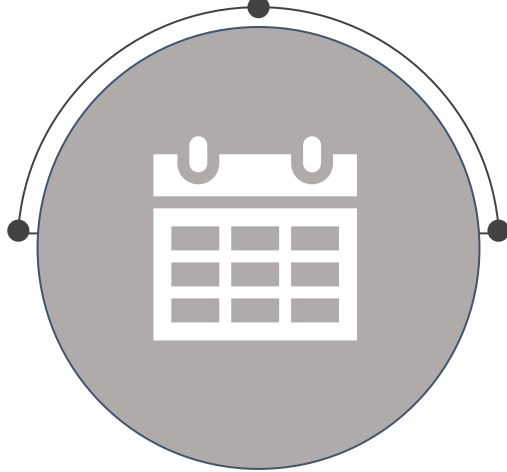
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Agenda



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Workplace Management, issues in real estate education, and background

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Analysis of WPM contents

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Conclusions and expansion

• Workplace Management (WPM) wanted

Trends in society and working environments [1, 2]:



Industry 4.0



Optimization of
resources



Covid-19

• Workplace Management (WPM) wanted

Trends in society and working environments [1, 2]:



Industry 4.0



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REM

Real Estate Management

Mission is to add value to the organization through the strategic management of physical resources [4]

FM

Facility Management

Mission to improve the quality of life of people and the productivity of the core business [5]



WHAT IS WPM?



*“an ecosystem comprising a careful balance of **people, process and place** developed to support people and the nature of their work” [6].*

*“a process that deals with **changing user needs**, workplace and office layouts and concepts, space standards, evaluation of effects of different workplace solutions and design” [7].*

*“the management of all resources needed to design and maintain appropriate, effective and economical workplace **experiences** that align to strategic business objectives and support people in doing their best work every day, **wherever they are.**” [8].*

• Workplace Management (WPM) wanted

Trends in society and working environments [1, 2]:



A HANDBOOK OF
MANAGEMENT THEORIES
AND MODELS FOR
OFFICE ENVIRONMENTS
AND SERVICES

CBRE

Taylor & Francis
Not for distribution
Edited by Vitalija Danivska
and Rianne Appel-Meulenbroek

REM

Real Estate Management

Mission is to add value to the organization through the strategic management of physical resources [4]

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WHAT IS WPM?



Workforce



Space and facilities



Change management

• Background of the study

INTERVIEWS TO PROFESSIONALS

- (a) Invited guests to a roundtable organized at Politecnico di Milano on July 8th, 2019 around workplace management and workplace management education in the context of the *Erasmus + Strategic Partnership “An Innovative Approach to Workplace Management Education”*.
- (b) Follow-up interviews were administered to 14 people between CREM, FM and WPM departments from 10 major corporations acting either as external consultants or as end-users based in Italy and to 2 academics.
1. one-to-one or group interviews,
 2. semi-structured,
 3. key topics, including:
 - what key issues WPM entails nowadays and what is its relevance at corporate level?
 - what are the competences and skills that are required to workplace managers? and
 - how well does the training offer match job demand?

Workplace Consultants (4/10)



DEGW



workitect

= il prisma =
DESIGN HUMAN LIFE

End-user organizations (6/10)



ABB



NOKIA

Educators (+2)



• Background of the study

HIGHLIGHTS FROM INTERVIEWS

- (a) Among the key issues that WPM should take into account today, are there: **technology, flexible working policies including multi-location of work, and branding.**
- (b) A specialist to guide this continuous evolution is in high demand. However, introducing this specialist in all organizations as a permanent figure would partially overlap FM and HR roles, indeed workplace managers' competences entail a technical background (either architects or building engineers) with skills in management engineers and experience in change and strategy management. All interviewees recognized the **interdisciplinarity** of WPM.
- (c) The workplace manager figure should be educated as a **leader that can communicate to and guide multiple supporting teams** (e.g. HR, architects, engineers, etc.) toward a common solution through change. The peculiarity and challenge of a workplace manager lays into aligning several and different disciplines to the same objective or scope.

Workplace Consultants (4/10)



DEGW



workitect

= il prisma =
DESIGN HUMAN LIFE

End-user organizations (6/10)



ABB



NOKIA

Educators (+2)



• General issues in real estate education

ADDITIONAL CHALLENGES

- The **definition** of WPM is still blurred and the job role as well
 - Young **discipline**, still to be defined
- (a) The built environment industry is a dynamic sector where many variables (economics, regulations, laws, technology) constantly **change** the job market [9]
 - (b) Education in real estate still presents a gap between the desired **employability** skills and the topics taught at universities [9]
 - (c) **soft skills** are more and more significant for companies but higher education is still weak in supporting their development [10]
 - (d) attention should be put in “*engaging those graduate students in the **real business challenges***” [11]

9. Borg, Turner, & Scott-Young (2018)

10. Poon (2012)

11. CIHE (2010)

• Research questions



Is higher education integrating WPM contents in order to prepare students enter the job market?



How does academia prepare students with WPM competences?



How can proper preparation be improved for managing and designing the future workplaces?

Methodology

Secondary data – Desk research

RE Academic programs (591) [*]

+ data scraping software



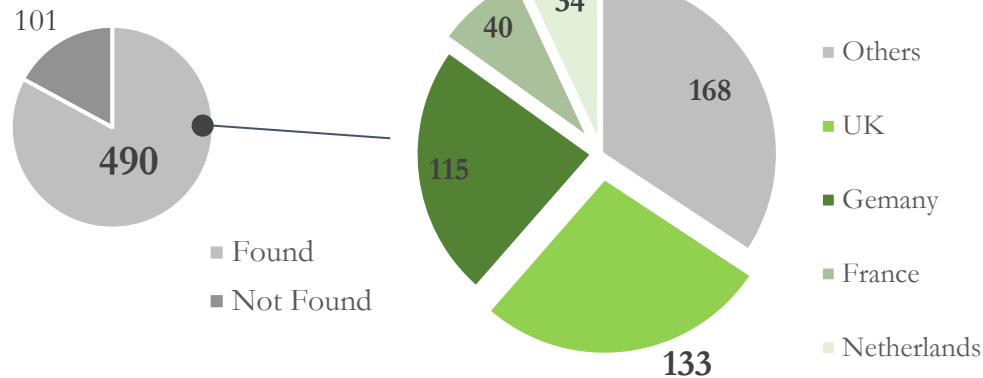
```
def is_link_relevant(a, keyword_list):
    """
    Determine whether a given link might be relevant to navigate.
    If it doesn't match any keyword, there's still a small probability for the
    link to be randomly chosen.
    """
    link_text = a.text.lower()
    # print("[INFO] Link text: {}".format(link_text))
    for keyword in keyword_list:
        word = keyword[0]
        if link_text.find(word) != -1:
            return True
    if random.uniform(0.0, 1.0) > 0.999:
        return True
    else:
        return False
```

	A	B	C	D	E	F	G	H	I	J	K
1	Country	City	Institution	Name of program	Type of degree	Necessary prequalification	period of study (in years)	Total amount of ECTS	FT/PT	Course language	Homepage
89	Germany	Bonn	College Savings Bank Finance Group - Universi	Finance with Specialisation Real Estate Economics	B.Sc.	University Entrance Diploma or Advanced Technical	3,5	210	PT	German	www.s-hochschule.de
90	Germany	Darmstadt	Technical University Darmstadt	Industrial Engineering and Civil Engineering	B.Sc.	University Entrance Diploma or equivalent Degree	3	180	FT	German	www.tu-darmstadt.de
91	Germany	Darmstadt	Technical University Darmstadt	Industrial Engineering and Civil Engineering	M.Sc.	Bachelor degree or its equivalent	2	120	FT	German	www.tu-darmstadt.de
92	Germany	Dessau	Anhalt University of Applied Sciences	Facility Management	B.A.	University Entrance Diploma or equivalent Degree	3	180	FT	English	www.hs-anhalt.de
93	Germany	Dessau	Anhalt University of Applied Sciences	Facility Management	B.Sc.	University Entrance Diploma or equivalent Degree	3	180	FT	German	www.hs-anhalt.de
94	Germany	Dresden	European Institute of Postgraduate Education	Real Estate Development - sustainability in new and existi	Real Estate Developer (EIPOS)	University Degree or Real Estate specific Education a	114 hours	n/a	PT	German	www.eipos.de
95	Germany	Dresden	European Institute of Postgraduate Education	Expert for Real Estate Valuation Level 1	Certified expert for property val	University Degree or Real Estate specific Education a	136 hours	n/a	PT	German	www.eipos.de
96	Germany	Dresden	European Institute of Postgraduate Education	Expert for Real Estate Valuation Level 2	Certified expert for property val	Expert for Real Estate Valuation Level 1 or Equivalent	134 hours	n/a	PT	German	www.eipos.de
97	Germany	Dresden	European Institute of Postgraduate Education	Construction and Real Estate Management	Construction and Real Estate ma	University Degree or Real Estate specific Education a	60 hours	n/a	PT	German	www.eipos.de
98	Germany	Dresden, Shanghai	European Institute of Postgraduate Education	Real Estate Management	M.Sc.	University Degree or Equivalent Degree with Qualifyi	26 months	90	PT	German	www.eipos.de
99	Germany	Eltville	International Real Estate Business School (IRE	Real Estate Economics	Real Estate Economist (IREBS)	University Degree or Real Estate specific Education a	15 months	n/a	PT	German	www.irebs-immobilienakademie.de
100	Germany	Eltville	International Real Estate Business School (IRE	Executive MBA Real Estate	MBA	University Degree or Real Estate specific Education a	53 days	n/a	PT	German/English	www.irebs-immobilienakademie.de
101	Germany	Eltville	International Real Estate Business School (IRE	Corporate Real Estate Management	Corporate Real Estate Manager	Application by personal interview and motivation	17 days	n/a	PT	German	www.irebs-immobilienakademie.de
102	Germany	Eltville	International Real Estate Business School (IRE	Commercial Real Estate	Retail Property Manager (IREBS)	Application by personal interview and motivation	20 days	n/a	PT	German	www.irebs-immobilienakademie.de
103	Germany	Eltville	International Real Estate Business School (IRE	Real Estate Asset Management	Real Estate Asset Manager (IREE	Application by personal interview and motivation	17 days	n/a	PT	German	www.irebs-immobilienakademie.de
104	Germany	Frankfurt	Akademie der Immobilienwirtschaft (ADI)	Real Estate Economics	Real Estate Economist	University Degree and Professional Experience	59 days	n/a	PT	German	www.adi-akademie.de
105	Germany	Frankfurt am Main	International Real Estate Business School (IRE	Certified Real Estate Investment Analyst	Certified Real Estate Investment	Application by personal interview and motivation	21 days	n/a	PT	German	www.irebs-immobilienakademie.de

* ERES list of University programs in Real Estate 2016 and 2018; REALS software by PhD student Stefano Ribes

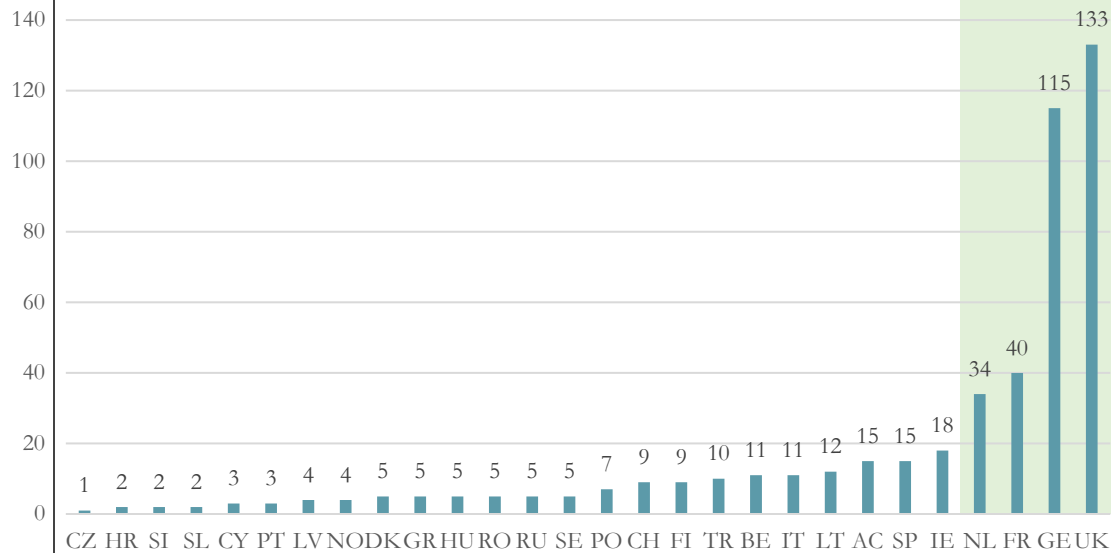
Number and type of available training in Real Estate

ERES programs 2019



Number of RE programs by country

65%



Country code	Country	Not specified	Postgraduate	Undergraduate	Total
AC	Austria		12	3	15
BE	Belgium		7	4	11
CH	Switzerland		6	3	9
CY	Cyprus		2	1	3
CZ	Czech Republic		1		1
DK	Denmark		2	3	5
FI	Finland		6	3	9
FR	France		16	24	40
GE	Germany	2	74	39	115
GR	Greece		5		5
HR	Croatia		2		2
HU	Hungary		2	3	5
IE	Ireland		3	15	18
IT	Italy		10	1	11
LT	Latvia		7	5	12
LV	Lithuania		3	1	4
NL	Netherlands		22	12	34
NO	Norway		4		4
PO	Poland		5	2	7
PT	Portugal		3		3
RO	Romania		4	1	5
RU	Russia		4	1	5
SE	Sweden		3	2	5
SI	Slovenia		1	1	2
SL	Slovakia		1	1	2
SP	Spain		15		15
TR	Turkey		9	1	10
UK	United Kingdom	10	85	38	133
Total	28	12	314	164	490

• Education level in Real Estate

Country code	Country	Not specified	64% Postgraduate	33% Undergraduate	Total
AC	Austria		12	3	15
BE	Belgium		7	4	11
CH	Switzerland		6	3	9
CY	Cyprus		2	1	3
CZ	Czech Republic		1		1
DK	Denmark		2	3	5
FI	Finland		6	3	9
FR	France		16	24	40
GE	Germany	2	74	39	115
GR	Greece		5		5
HR	Croatia		2		2
HU	Hungary		2	3	5
IE	Ireland		3	15	18
IT	Italy		10	1	11
LT	Latvia		7	5	12
LV	Lithuania		3	1	4
NL	Netherlands		22	12	34
NO	Norway		4		4
PO	Poland		5	2	7
PT	Portugal		3		3
RO	Romania		4	1	5
RU	Russia		4	1	5
SE	Sweden		3	2	5
SI	Slovenia		1	1	2
SL	Slovakia		1	1	2
SP	Spain		15		15
TR	Turkey		9	1	10
UK	United Kingdom	10	85	38	133
Total	28	12	314	164	490

189 graduate programs (54%) and 91 undergraduate programs (55.5%), can be considered **“economic degrees”**

145 (46%) graduate programs and 73 undergraduate programs (44.5%) can be defined **“technical degrees”**

• WPM contents

Country	no	yes	no access	n.s.	Total
AC	9	3		3	15
BE	4	2		5	11
CH	6	3			9
CY	2			1	3
CZ	1				1
DK	2	3			5
FI	6	3			9
FR	36	1		3	40
GE	97	5 ←		13	115
GR	5				5
HR	2				2
HU	5				5
IE	15	1		2	18
IT	8	2		1	11
LT	12				12
LV	4				4
NL	25	5 ←	4		34
NO	4				4
PO	5	1		1	7
PT	3				3
RO	5				5
RU	5				5
SE	5				5
SI	2				2
SL	2				2
SP	12	1	1	1	15
TR	3	3		4	10
UK	112	8 ←	3	10	133
Total	397	41	8	44	490

The scraping software confirmed that, out of 490 academic programs in real estate, **only 8%** (41) presented some contents **dedicated to WPM**.

Overall, **64%** of **WPM classes /modules/contents** belong to **“technical degrees”**, and 36% to **“economic degrees”**.

<https://ccc.tuwien.ac.at/management-school/professional-mba-facility-management>



> Management School / Professional MBA Facility Management

Professional MBA Facility Management

Die Inhalte konzentrieren sich auf die Vermittlung von operativ-wirtschaftlicher und operativ-technischer Kompetenz. Neben betriebswirtschaftlichen Inhalten, denen eine besondere Bedeutung zukommt, werden vor allem **Management-Perspektiven von FM und Immobilienmanagement** abgedeckt.

Die Bereiche umfassen u.a. Prozess- und Risiko Management, Legal Compliance, New Ways of Working und die Auswirkungen auf Immobilien, Facility Services, strategisches und taktisches Facility Management.

- Grundlagen des Facility Managements
- Economics & General Management
- Organisation & Führung
- Legal Compliance
- Projektmanagement
- Architektonische & bautechnische Aspekte
- Facility Management: Strategisch – Taktisch – Operativ
- Facility Services & ihr Management
- IT-Support im FM
- Interdisziplinäres Projekt
- Masterthese

• WPM contents

<https://www.zhaw.ch/storage/lspm/studium/master-fm/master-facilitymanagement-brochure.pdf>

“The focus is on property and facilities as resources (asset and portfolio management), service design and strategic services marketing and relationship management challenges in a B2B4C field, and workspace design with its impact on productivity and wellbeing.”



available at www.zhaw.ch/ifm/master/en

Module Block	1 st semester ECTS*	2 nd semester ECTS*	3 rd semester ECTS*	Total ECTS*
Module				
Managerial Skills				
Managerial Finance and Accounting	4			
Change Leadership	4			
Systems Engineering and Project Management		4		
Strategic Management				
Business Environment		4		
FM Environment		4		
Business Processes and Value Management		3		
International FM			4	
Strategic Planning of Facilities and Services				
Real Estate Strategy and Innovation	4			
Service Strategy and Innovation	4			
Workplace Strategy and Innovation	4			
FM Integrated				
Advanced FM	4			
Case Study I	4			
Case Study II		4		
Applied Research Project				
Research Lab 1	3			
Elective 1	3			
Research Lab 2	*	3	*	
Elective 2	*	*	*	
Research Lab 3	*	*	*	

• Conclusions



Is higher education integrating WPM contents in order to prepare students enter the job market?

Only 8% (41) of the RE programs (490 in total) that were active in 2019 showed to include WPM contents in their curricula



How does academia prepare students with WPM competences?

The approach is varied across countries and across different programs, which might depend on the relative novelty of the WPM field



How can proper preparation be improved for managing and designing the future workplaces?

More research is necessary to answer this question...

• Expansion

Expand the panel of interviewees to better profile WPM wanted (LinkedIn?)

II round of data collection after COVID-19

Focus on training modes and contents

ERES also heavily leans on northern European countries and therefore the data could be 'biased' a bit

In ERES lists all courses are specific to the real estate sector, but potential contribution to the WPM background knowledge could come from degrees in management engineering, business economics, psychology, human relations or others



Case study by:



WHAT IS SSWM? INTERNATIONAL AND INTERDISCIPLINARY WORKSHOP ON WORKPLACE MANAGEMENT

WHERE AND WHEN

28 JUNE - 4 JULY: Workplace management basics_ E-LEARNING / STREAMING

5-11 JULY: Focus on coworking spaces
E-LEARNING / LIVE WEBINARS

12-16 JULY: Focus on workplace
E-LEARNING / LIVE WEBINARS

APPLY NOW!

Selections based on CV

LINKS FOR APPLICATION

Option #1: Focus on coworking (5-11 July)
www.polimi.it/index.php?id=5782&uid=4723

Option #2: Full course (28 June – 16 July)
www.polimi.it/index.php?id=5782&uid=4722

WHO CAN APPLY?

Undergraduate and graduate students who are interested in design, strategies, change management and facility management, as well as the effects of new working spaces on the workers, urban space and peripheral areas. PoliMI students can gain **internship CFU** after the Full Course and AUIC's assessment.

Researchers who are investigating the social, economic and environmental impact of the most recent working space changes, and those who have joined the CA18214 or are interested in the topic of the action.

SUMMER SCHOOL DESCRIPTION

2021 edition: focus on coworking spaces

By referring to the 'COST Action CA18214', in which lecturers and organizers are involved, and by presenting preliminary outcomes of the CA18214, the participants of the summer school will get a comprehensive overview of the current knowledge on the **new working spaces such as coworking spaces** and new trends in the local and international contexts.

The nature of work has been evolving recently, along with the way **working spaces** are used. This dynamic has major implications for **working space design, management and location** that need to respond to new challenges. This course will assist students, practitioners and researchers to engage with these ongoing evolutions.

Participants will learn to:

- Integrate different disciplines in a sound reasoning around the workplace, with a focus on coworking spaces;
- Manage the planning, programming, and executing phases of a workplace change process;
- Manage planning and policy tools in fostering coworking space diffusion;
- Picture the future evolution of workplaces and its impact at the building and local scale, both in core and peripheral areas.

<https://www.rec.polimi.it/sswm/>

ERES 2021

How Higher Education Prepares Workplace Managers. A New Discipline Wanted

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The school is co-organized by COST Action CA18214 «The geography of New Working Spaces and the impact on the periphery»