



THE COUNCIL OF EUROPEAN GEODETIC SURVEYORS
COMITÉ DE LIAISON DES GÉOMÈTRES EUROPÉENS

euREAL v2.0

First Reading

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Oradea, 12 May 2023



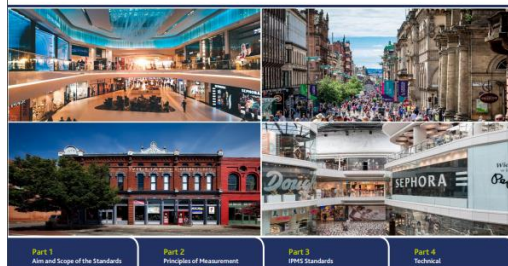
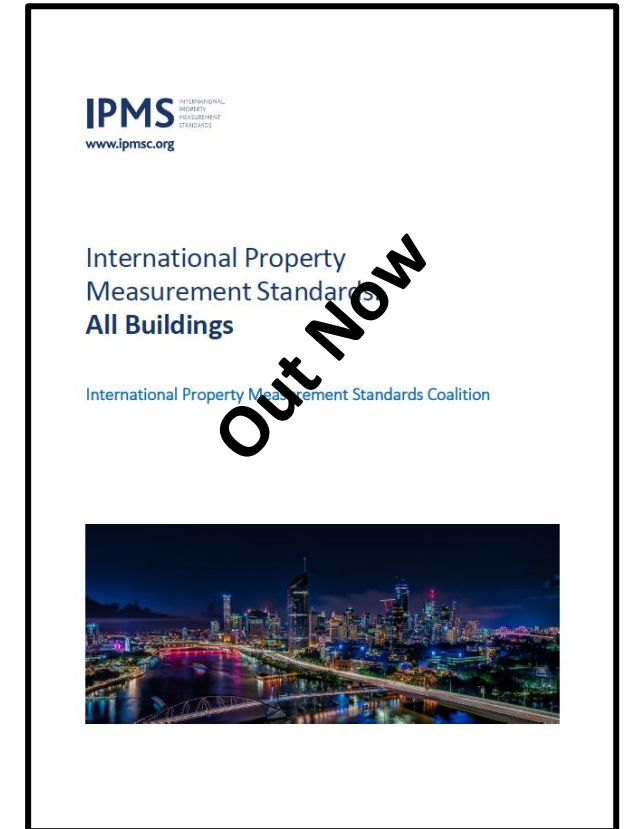
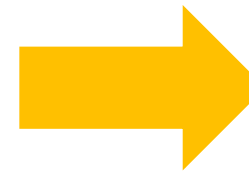
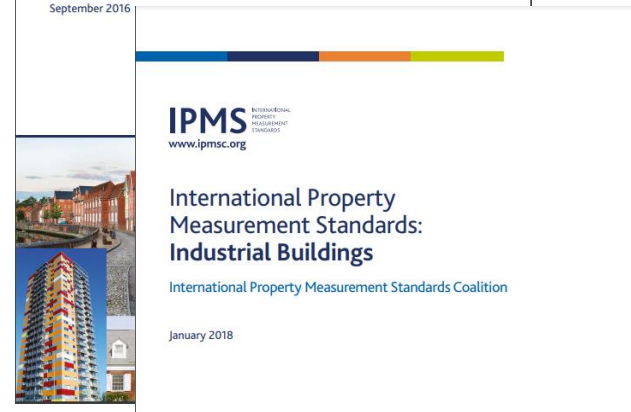
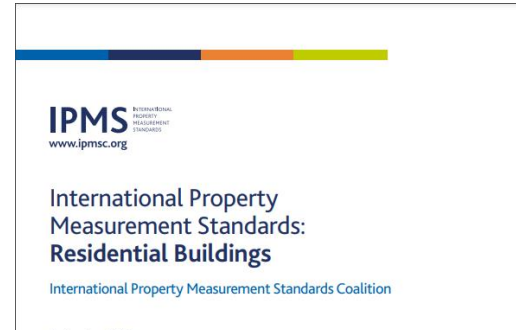
euREAL v1.0 - the History

- Text accepted unanimously in Tallinn, @CLGE GA, September 2011
- Integrated in directive INSPIRE - Data Specification Buildings, 11 April 2012
- Booklet presented to the general public in Hanover, @III CLGE Conference of the European Surveyor, 11 October 2012
- Basis for IPMS, @World Bank Washington DC, 1 May 2013





IPMS Standards - the Evolution





euREAL v2.0 - the Future

- IPMS: All Buildings, 15 January 2023
- WG euREAL
 - Discussions about how to use IPMS within euREAL (creation of euREAL v2.0 IPMS Compliant)
 - First proposal on 20 February 2023
 - WG meeting in Brussels on 9 March 2023, discussions based on first proposal
 - First draft sent out to WG member on 16 March 2023
 - First reading @CLGE GA in Oradea, 13 May 2023 (e-mail dd 26 April 2023)





euREAL v2.0 - the Similarities and the Changes

- ✓ euREAL v2.0 applies to all existing buildings, as well as to all phases of the construction process, from the design on to the completion of works
- ✓ The code has the flexibility to measure only part of a building or to measure all the areas in the building and allocate these areas into separate components
- ✓ Aim is to meet the requirements of civil society in terms of transparency, legal certainty, planimetric representation and economic requirements





euREAL v2.0 - the Similarities and the Changes

• Extensive Glossary

- Existing definitions from euREAL v1.0
- Definitions from IPMS: All Buildings

• 3 Reference Areas

- External Area (SEM) => IPMS 1
- Internal Area (SIM) => IPMS 4.2
- Constructed Area (SDC)

• Update/fine-tuning of general measurement principles





euREAL v2.0 - the Similarities and the Changes

- Use of IPMS 1 and IPMS 4.2 definitions

- For both,
- measurement practice from IPMS: All Buildings (*e.g. how to measure the boundary of IPMS 1, ...*)
- combined with additional guidance from euREAL (*e.g. what areas are included in IPMS 1, how to measure mezzanines, ...*)

- Distinction between private and common areas

- Distinction between above ground and below ground

- Need for new diagrams as existing diagrams create confusion
- Probably some changes in the original euREAL text to clarify





euREAL v2.0 - the Similarities and the Changes

- Division of IPMS 4.2 Area into 4 subcategories
 - Primary Areas, Residual Areas, Other Areas and Service Areas
 - Correspondance table added to show the relation between euREAL subcategories and IPMS Component Areas





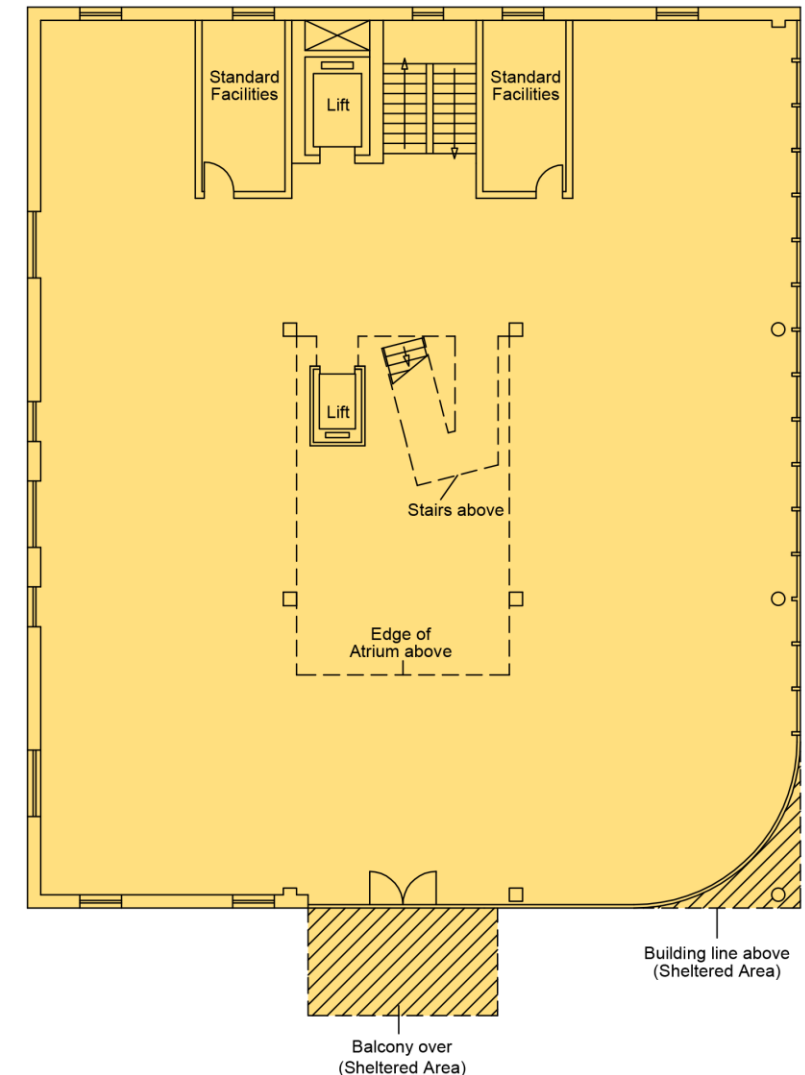
The floor area measured to the external extent of the external walls and to any notional boundaries, external floor areas or sheltered areas.

The boundary of IPMS 1 for each level is determined by considering the following in sequential order:

- Notional boundaries
- External floor area
- Sheltered area
- External wall

The following areas are included in IPMS 1 but, for completeness and clarity, must be itemised individually on a level by level basis: any area between a notional boundary and the external perimeter of external walls; sheltered areas; external floor areas; enclosed walkways or passages connecting separate buildings; enclosed rooftop plant such as mechanical, electrical and lift motor rooms; external stairs that lead to upper levels, excluding open framework fire escapes, which are excluded; limited use area(s) not otherwise identified above.

IPMS 1





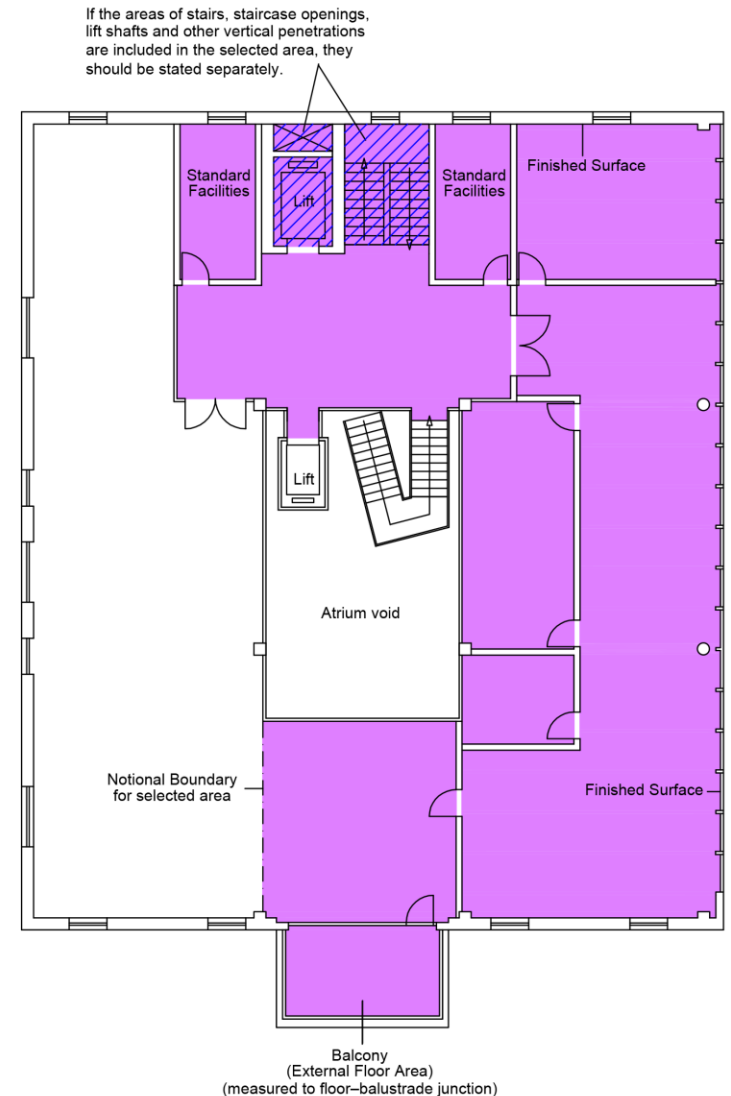
IPMS 4.2

The selected floor area in a building measured to finished surfaces and to any notional boundaries, external floor areas and sheltered areas excluding (subtracting) all floor area occupied by walls and columns

The selected boundary of IPMS 4.2 for each level is determined by considering the following in sequential order:

- Notional boundary
- External floor area
- Sheltered area
- Finished surface

The following areas, if included in IPMS 4.2, must be itemised individually on a level by level basis for purposes of completeness and clarity: external floor areas; sheltered areas; secondary areas; limited use areas; stairs; staircase openings; lift shafts; other vertical penetrations.





euREAL v2.0 - IPMS 4.2

- Division of IPMS 4.2 Area into 4 subcategories

PRIMARY AREAS

All portions of **Floor Areas** with a headroom ≥ 2.10 m associated with the principal uses of the **Building**.

RESIDUAL AREAS

All portions of **Floor Areas** with a headroom < 2.10 m associated with the principal uses of the **Building**.

OTHER AREAS

All portions of **Floor Areas** regardless of height which are not consistent with the main use of the **Building**.

SERVICE AREAS

All portions of **Floor Areas** used for building services, irrespective of height or occupation.



euREAL v2.0 - Correspondance table

- Correspondance table between euREAL Subcategories and IPMS Component Areas

		euREAL	IPMS
IPMS 1	IPMS 4.2	PRIMARY AREAS	
		All portions of floor areas with a headroom* ≥ 2.10 m associated with the principal uses of the building. These include in particular: - in housing: living areas (dining rooms, bedrooms), toilet areas (bathrooms, lavatories), interior spaces and passageways, storage areas, etc. - in offices: work areas, meeting rooms, annexes, recreational areas, toilets, interior spaces and passageways, etc.	Component Area D : Sanitary Areas ≥ 2.10 m Component Area E : Horizontal Circulation Areas ≥ 2.10 m Component Area F : Primary Areas ≥ 2.10 m Sub-component Area G1 : Amenity Areas ≥ 2.10 m
		RESIDUAL AREAS	
		All portions of floor areas with a headroom* < 2.10 m associated with the principal uses of the building.	Component Area D : Sanitary Areas < 2.10 m Component Area E : Horizontal Circulation Areas < 2.10 m Component Area F : Primary Areas < 2.10 m Sub-component Area G1 : Amenity Areas < 2.10 m
		OTHER AREAS	
	All portions of floor areas regardless of height which are not consistent with the main use of the building. These include in particular: - underground storage and archive rooms - cellars - parking garages - unconverted usable roof space* - balconies*, upper floor terraces*, loggias*, etc. - passageways and non-enclosed covered areas (canopies, car-ports, etc.).	Sub-component Area G2 : Ancillary Areas	
		SERVICE AREAS	
		All portions of floor areas used for building services, irrespective of height or occupation. These include in particular: - lift shafts - stairwells - access ramps - maintenance areas and technical areas serving the building - (not included are technical areas for the use of an occupant which are regarded as annexes of the primary area).	Sub-component Area B1 : Vertical Circulation Areas Component Area C : Technical Areas
	CONSTRUCTED AREA	CONSTRUCTED AREA	
		Constructed area is the difference between the IPMS 1 area and the IPMS 4.2 area.	Sub-Component Area A1 : Notional Boundary Sub-Component Area A2 : External Structural Elements Sub-Component Area A3 : Inter-Surface Adjustment Sub-Component Area A4 : Internal Structural Elements Sub-Component Area A5 : Internal Non-Structural Elements Sub-component Area B2 : Vertical Technical Areas



euREAL v2.0 - the Final Draft

- To create a final draft the WG needs to:
 - update *PREFACE*, *INTRODUCTION* and *AIMS*
 - check the glossary for missing definitions
 - check the whole document for incorrect or contradictory information
 - clarify the distinction between above ground and below ground
 - create new diagrams for IPMS 1 and IPMS 4.2
 - update the detailed area chart, table of areas, plan of areas





euREAL v2.0 - the Next Steps

- WG also wants YOUR input!
 - Until end of June (e-mail dd 26/04)
- Final approval euREAL v2.0 in November during our Paris GA

