INTERNATIONAL
PROPERTY
MEASUREMENT
STANDARDS:
RESIDENTIAL

SSC Response to Consultation Feedback
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Introduction

The International Property Measurement Standards for Offices Document was in consultation between 15 June and 30 September 2015. During this period there were over a 1,250 downloads of the Consultation Document and the responses were received from the 59 organisations or individuals listed below. The IPMS Standards Setting Committee has considered all the comments received before completing the IPMS – Residential Buildings.

In order to encourage an open and transparent consultation process the International Property Measurement Standards Coalition (IPMSC) has asked the Standards Setting Committee to publish the comments received during the consultation process and to explain how these comments were taken into consideration post-consultation.

ADAIR ASSOCIATES  NAVIN RAHEJA
AEV  NEERAJ BANSAL
ALEXANDER SYMONDS  NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT
AMVEST  NIMISH GUPTA
ANSHUMAN MAGAZINE  PAULO SERGIO
API  PCA
APPLEBY  PLANO E PLANO
ARRA  PLOWMAN CRAVEN
BRITISH ARABIAN  PRIVATE RESPONSE
CAMPBELL D FERGUSON  RICS BENELUX
CASOI  RICS BULGARIA
CAXTONS  RICS CZECH
CERTES REALTY  RICS GERMANY
CHRIS OWTRAM ARCHITECTURE  RICS ITALY
C K WONG  RICS OCEANIA
CLGE  RICS PORTUGAL
CURY  RICS SWEDEN
DUBAI LAND  RICS SWITZERLAND
ENGLEUX  RISM
ENPLAN  SANE ENGENHARIA
ESURV  SAPOA
EXPERT INVEST  SEBEL
FPRA  STRUTT AND PARKER
GIF  SUNIL AGARWAL
JLL BRAZIL  TARJAB
KALLAS  TENDA
KIRKBY DIAMOND  TCA CONSULT
KNIGHT FRANK AUSTRALIA  ZIA
KNIGHT FRANK LLP
LUCIANO WERTHEIM
MBIGUCCI
MOHAMMED ALI
A number of responses were received from various RICS country groups, such as RICS Germany. In these cases the responses were prepared by working groups of members, many of whom may have multiple affiliations with RICS and other professional bodies.

We are aware that a number of other responses such as those prepared by API, GIF, Netherlands Council for Real Estate, PCA, Plowman Craven and ZIA were also prepared by boards or working groups.

The IPMS principles, methodology and measurement practices used in this standard will be applied when the future IPMS standards for other building classes, for example industrial and retail, are drafted by the SSC. Obviously these will need to be consistent as another building class is mixed use, which will incorporate several IPMS standards. The objective is that there will be no variance between IPMS 1 and IPMS2 across the building classes. However it should be noted that though the concept of IPMS 3 as the area in exclusive occupation will be the same across building classes there may be some variance in the definition of IPMS 3 across the varying building classes to meet varying market practices and needs.

Individual markets around the world have well-established local measurement codes. The SSC realised that a standard that attempted to change these well-established concepts would not be globally adopted. It was therefore necessary to create a Standard that allowed existing standards to interface with the IPMS Standard.

Finally the diversity of responses received has underlined the need for IPMS Standards.
Executive Summary

In respect to the Consultation Document consultation process a consultation response form was issued and respondees were asked the following ten questions in relation to the Consultation Document. Please find here below the response summary and the IPMS Standards Setting Committee’s rationale in relation to the way these responses were treated:

Q1. IPMS: Residential Buildings is intended to improve market transparency for consumers. Does the document achieve this and if not what improvements would you suggest?

Response Summary: There were 49 responses to this question and a range of different opinions. On the whole the respondees felt that IPMS Residential Buildings improved market transparency for consumers. However a number of respondees stated that the standard required further clarification to be fit for purpose and others felt that a convertor tool was required to improve comparability of different national standards.

SSC Rationale: The SSC considered the responses received and noted that respondees generally accepted the need for an international measurement standard though felt some areas required further clarification in order for the standard to be fit for purpose. The SSC has spent the past three months discussing these matters, consulting and revising the document in order to prepare an Exposure Draft for further consultation to ensure that IPMS Residential Buildings is fit for purpose prior to publication.

The Exposure Draft includes revised user friendly floorplans with text labelling and magnification of key measurement areas to provide further clarification. The SSC has also studied current market residential practices and have revised IPMS 3B in order to market needs.

Q2. Which of the standards IPMS 1, IPMS 2 Residential and IPMS 3A, 3B and 3C Residential would be relevant to your markets?

Response Summary: There were 49 responses to this question and a range of different opinions. All the respondees would use at least one of
the IPMS standards (IPMS 1, IPMS 2 or IPMS 3 A,B or C) and the majority of respondees said they would use more than one of the IPMS standards. A number of respondees also commented on the variance in existing measurement standards (eg GEA and GIA) and the similarity between one of the IPMS measurements standards and their existing national measurement standards.

**SSC Rationale:** The SSC considered the responses received particularly those in relation to the similarity between IPMS 2 and the current IPMS 3B and the need for a simple internal measurement standard excluding interior walls. The SSC have revised IPMS 2 to include the following qualification that “Private and Common Areas can be stated and identified separately” to meet European market needs. The SSC have also revised IPMS 3B to create an end user friendly measurement, which measures the internal area excluding external walls. The SSC will issue an Exposure Draft with further targeted questioning to provide feedback on the changes prior to the issue of IPMS: Residential Buildings.

**Q3. How would you use IPMS 1, IPMS 2 Residential and IPMS 3A, 3B and 3C - Residential within the markets in which you operate?**

**Response Summary:** There were 49 responses to this question and a range of different opinions. The majority of respondees would use at least one of the IPMS standards. The majority of respondees stated that they would use IPMS 1 for town and land planning purposes, cost calculation and development appraisal and IPMS 2 or 3 for rental, sales, purchase and valuation of residential properties. On the whole all respondees felt that IPMS would be useful for various analytical needs and international comparisons.

**SSC Rationale:** The SSC considered the responses received and noted that nearly all the respondees could use IPMS 1, IPMS 2 Residential or IPMS 3A, 3B and 3C - Residential. The SSC noted that IPMS 2 and IPMS 3B were more or less equivalent and have slightly revised IPMS 2 and IPMS 3B and provided further clarification to the existing standards. The SSC will be issuing a further Exposure Draft to ensure IPMS is fit for purpose.
Q4. Within your residential market are there other measurement issues that the IPMS Residential Standard has not mentioned or clarified that you believe should be part of the IPMS Residential Standard?

**Response Summary:** There were 36 responses to this question. The majority of responses said that there were no other measurement issues to be added to the standard. Further responses asked for further clarification on the measurement of balconies, verandas and terraces. Other responses asked for IPMS to include differentiation between private and common areas or required further clarification on measurement boundaries such as IDF, sloping walls or roof overhangs.

**SSC Rationale:** The SSC have revised the existing floor plans and included magnification of measurement boundary lines to provide clarification on IDF, sloping walls and roof overhangs. The SSC have also revised IPMS 2 to include the possible incorporation of private and common areas if required. The revised IPMS: Residential Buildings Exposure Draft also incorporates additional guidance on the measurement of balconies, verandas and terraces.

Q5. IPMS: Residential Buildings has adopted Internal Dominant Face in order to maintain consistency across all IPMS Standards. Please advise whether you support this or whether you have an alternative proposal and if so what is it and why? How would you address the resulting inconsistency with IPMS Office Buildings?

**Response Summary:** There were 49 responses to this question and the majority of responses supported Internal Dominant Face and recognised that both dual reporting and Limited Use Areas would aid comparison with existing national standards. However a number of responses felt that the definition of both Internal Dominant Face (‘IDF’) and Vertical Section required further clarification.

**SSC Rationale:** The SSC considered the responses received and noted that the majority of responses supported the concept of Internal Dominant Face. However the SSC also noted that further clarification was required within the definitions and Floor Plans. The SSC have now revised the definition of both the IDF and Vertical Section now retitled...
IDF (Internal Dominant Face) Wall Portion within the Exposure Draft to make the definitions more user friendly.

Q6. Are the explanatory diagrams and text description for Internal Dominant Face sufficient? If not, what specific diagrams or explanation do you require?

Response Summary: There were 49 responses to this question and the majority of responses said that the explanatory diagrams and text for IDF were sufficient. However some respondees felt that the labelling of the Floor Plans could be improved and others requested further clarity on the IDF measurement boundary lines within the Floor Plan to include detailing for projected windows and door window combinations etc.

SSC Rationale: The SSC considered the responses received and noted further clarification of IDF was required within the Floor Plans. The SSC have revised the Floor Plans within the Exposure draft to include Floor Plans for detached, semi-detached, attached houses and apartments. The labelling within the Floor Plans has been revised to give text indication of living room, bedroom, kitchen and bathroom areas. The Floorplans have also been revised to include magnifications to provide magnification of key IDF measurement boundary lines such as projected windows and adjoining walls.

Q7. Are all other diagrams clear in demonstrating the concepts to which they apply?

Response Summary: There were 47 responses to this question and a range of different opinions. On the whole the respondees felt that the other diagrams were clear in demonstrating the concepts to which they apply. However a number of respondees commented on balcony and terraced areas and requested further clarification on the magnification of these and other areas.

SSC Rationale: The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Q8. IPMS: Residential has adopted Level 0, Level 1 and Level 2 to denote what in some markets would be called ground, first and second floor and in other markets floor 1, 2 and 3. Will this approach be understood in your market?

Response Summary: There were 48 responses to this question and the majority of respondees felt that the adoption of Level 0, Level 1 and Level 2 to denote what in some markets would be called ground, first and second floor and in other markets floor 1, 2 and 3 was acceptable. Some respondees further commented that this was acceptable providing that the user clearly states which system of description is being used when dual reporting is adopted.

SSC Rationale: The SSC considered the responses received and noted that respondees overwhelmingly accepted the floor labelling adopted within IPMS: Residential Buildings. However the SSC have supplied some further clarification within the Exposure Draft to ensure that IPMS Residential Buildings is fit for purpose.

Q9. IPMS 1 currently excludes ground floor patios from the total measurement, as the ground floor is not actually part of the building structure, although they can be measured and stated separately. A similar upper floor balcony is however included, as it forms part of the building structure, albeit is stated separately. Do you have any comments on this approach?

Response Summary: There were 46 responses to this question and a range of different opinions. On the whole the respondees were in agreement with the way that IPMS: Residential Buildings dealt with ground floor patios/terraces and balconies. Further respondees also commented that as these areas were also measured and stated separately it provided them with the flexibility to adjust IPMS measurements to meet the needs of their national standard. However a number of others felt that there was some inconsistency in the way ground floor patios/terraces and balconies were dealt with in IPMS.

SSC Rationale: The SSC considered the responses received and noted that there were some inconsistencies in the way that ground floor patios/terraces and balconies were treated within IPMS. The SSC have revised the text within IPMS: Residential Buildings Exposure Draft to iron
out any inconsistencies and have also added further clarification within the revised Floor Plans.

Q10. Do you have any other comments?

Response Summary: There were 38 responses to this question and a range of different opinions. On the whole the majority of respondees had no other comments in relation to IPMS: Residential Buildings. However a number of respondees felt that more examples with actual measurements of different typology of houses and buildings would be helpful and other respondees requested an additional IPMS 3 excluding internal walls and columns.

SSC Rationale: The SSC considered the responses received and have revised IPMS: Residential Buildings to provide further guidance on the measurement of detached, semi-detached and attached houses and apartments through some minor text revision and the addition of further Floor Plans. The SSC have also revised IPMS 3B to provide a new measurement excluding internal walls and columns.
Q1. IPMS: Residential Buildings is intended to improve market transparency for consumers. Does the document achieve this and if not what improvements would you suggest?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK: *Yes it does.*

2. ALEXANDER SYMONDS - Noel Gehren, UK: *Different users would have different requirements for determining areas of residential buildings. One of the intentions of a standard is to minimise conflict and confusion between users of the standard. When left to consumers to decide which method to use they will inevitably choose the method which best suits their needs eg a developer might use the IPMS 2 method for marketing (as suggested in the document) while a purchaser or tenant would want to determine only the area occupied possibly IPMS 3B or 3C giving very different results. It would be helpful to show the intended use of the different IPMS methods. The methods of measurement are often defined based on the existence of architectural drawings were lines drawn to the centre line of a wall are done on screen. In reality when there is conflict over an area the area needs to be physically measured and access to adjoining apartments is often not possible relying on assumptions to be made on wall thicknesses which is not ideal.*

3. AMVEST - Group Response, Netherlands; *Not very much for end consumers, more so for valuers and such.*

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; *The document doesn’t relate to our local market conditions and therefore we couldn’t explain more on the improvements. We believe that more transparency is required for consumers. Consumers should have access to the area statement of the entire building. At the moment, there is huge loading of common areas to the tune of even 50%. Even the reputed builders load to the tune of 30% common areas to the residential units and this seemed to be accepted by the consumers as there is less awareness.*

5. API - Kevin Thompson, Australia; *Yes it does. The chief concern is that IPMS 3b and 3c will lead to confusion. This confusion would be*
eliminated if IPMS 3c required the area occupied by full height internal walls to be delineated to form a true comparison between IPMS 3b and 3c.

6. APPLEBY - Alan Appleby, UK; It may do but only if applications are clearly stated for users and some mechanism put in place to check compliance.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; “The language needs to be simpler, common English as many using the Standard will not have English as their first language. 2.3. And elsewhere. Proof reading. Spaces missing between words are confusing. For simple single building residential valuations for mortgage purposes, the time and fee allocated by the client does not permit detailed drawings.”

8. CASOI - Anonymous, Brazil; I believe the current NBR already addresses the issue of transparency for the consumer.

9. CAXTONS - Charles Oliver, UK: Yes, although the attempt to satisfy everyone results in a complicated list of components and bases.

10. CERTES REALTY - Ramesh Menon, India; Yes, the introduction of the standards is extremely useful as it is imperative that we achieve a certain base level of standards in a market where the decision making for licensing is largely arbitrary. Therefore, a clean explanation and narration of the terminology would be useful for the consumer to discern their purchase. So far, the developers have been fairly opaque in their disclosures about standards. Also, it doesn’t help that the unit of measurement for land across the country is not uniform. (we do not yet practice the metric scale for calculation of acreage).

Developers, third party agencies like architects, engineers, construction companies and sellers use their own metrics of convenience which only compound the problem. Baby steps have been taken selectively by State Government on trying to introduce standardisation which having been found inadequate, and it seems to be just another step to augment their own revenues. There is also a need to contemporize the building byelaws across the nation. If there could be one code applicable across the country, for the calculation of
measurement, tolerance and values, and the same could be made binding on bodies which regulate in our federal structure. Secondly, the scope of the Real Estate Regulatory Act should encompass the standards suggested in the IPMS; the same since being part of the public interest can be started from the residential sector. With the Prime Minister’s announcing an ambitious goal “Housing for all by 2022”, standard practices would also eliminate arbitrary approvals and save time and money for the developers. It would also be helpful for buyers to differentiate between products and realise to value for money. The Real Estate Regulatory Act also talks about reporting and making available information for the public at large. Availability of standards to be followed would also encourage transparency.”

11. CHRIS OWTRAM ARCHITECTURE - Chris Owtram, United Kingdom; Yes.

12. C K WONG - C K Wong, Hong Kong; A set of universal rules and/or a common measurement method is always beneficial to property practitioners, the public and investors.

13. CLGE - Maurice Barbieri, Europe; We agree that the principle on which IPMS Residential Buildings is based is the improvement of market transparency for consumers. It fails, however, to achieve this in that major ambiguities and anomalies exist, commented on below, which negate the required transparency. There is also a requirement for consistency across documents (IPMS Offices, IPMS Residential Buildings and any further IPMS standards which may be defined in the future). There are discrepancies in detail between IPMS Residential Buildings and the previous Office document and these should be resolved as soon as possible, in particular, the retrospective insertion of the component areas, to be adopted for IPMS Residential Buildings, into IPMS Office Buildings to eliminate conflicts of definition between the two documents.

14. CURY - Ronaldo Cury, Brazil; Yes

15. ENGELUX - Mario Junior, Brazil; The document is a bit confusing. I did not understand the relationship between IPMS areas, and the component areas of a building. I understand that the sum of the components is equal to IPMS 1.
16. ENPLAN - Anonymous, Brazil; Yes, it does.

17. ESURV - Chris Ellis, UK; The IPMS document provides transparency, but it is considered that lenders and valuers will not see the need for change as the existing use of GEA and GIA is well understood and transparent enough. The house buying public are not likely to be familiar with any scheme of measurement, should they need to know in detail about what is and what is not measured they will have to reference documents which provide detail. It might as well be one covering GEA and GIA as their report will have used this standard and not IPMS.

18. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; We think that IPMS: Residential Buildings will improve market transparency for consumers. We consider that accommodation of three different measurement bases in IPMS 3 Residential will be not practical and will make more difficult working of the markets. It will be difficult to compare two apartments if the area of one is under IPMS 3 A Residential and the other is under IPMS 3 B Residential or IPMS 3 C Residential, which will lead to inconsistency. We suggest only one base for measuring to be remained in IPMS 3 Residential.

19. GIF - Dr. Ira Hörndler, Germany; Yes but we have to mention that measurement standards for residential buildings are very important in different areas of the economy and politics. In Germany the owner occupation rate is only 43 percent which is far below the average in the European Union with 60 percent. Therefore measurement standards have an impact on the costs of living and rents and the measurement standards are regulated e.g. in Wohnflächenverordnung. On the first look there is no need for another standard. The goal to improve the market transparency for consumers can only be achieved if the IPMS standard and the Wohnflächenverordnung is convertible. If this convertibility is fulfilled IPMS: Residential Buildings improves the global transparency and comparability of the different national standards.

20. JLL BRAZIL - Anonymous, Brazil; I believe it does.
21. KALLAS - Anonymous, Brazil; *The document is a bit confusing. I did not understand the relationship between IPMS areas, and the component areas of a building. I understand that the sum of the components is equal to IPMS 1.*

22. KNIGHT FRANK AUSTRALIA - David Way, Australia; *Yes. I think the document will provide good guidance to property professionals. Whilst it may sound obvious, I think consistency of analysis (ie comparing like areas between property’s being valued and those being analysed as sales evidence) has been lacking. I noted the papers suggestion to provide a coloured drawing. I think it should be stated that every area described should have a footnote: IPMS3A, etc.*

23. KNIGHT FRANK LLP – Andrew Gooding, UK; *We have reservations as to whether this will be achieved. Please see responses to the questions below for specific comments.*

24. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; *It does, however, it is a bit confusing and includes unnecessary information.*

25. MBIGUCCI - Janaina Jardim de Almeida, Brazil; *Yes, it does. However, it does need some changes as per answers below.*

26. MOHAMMED ALI - Mohammed Ali, UK; *The document does improve the market transparency for consumers. The colour coding of each residential component area in particular makes it easier to understand the plans.*

27. NEERAJ BANSAL - Neeraj Bansal, India; *Yes, the documents is a fair attempt to achieve market transparency for consumers by standardizing the measurement technique.*

28. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; *The current consultation document states that there are two types of IPMS – residential standard. IPMS 1 and 2 are measured for an entire building and the IPMS 3 standards are measured for the floor area that is exclusive available for an occupier. We believe that IPMS 3 is the most important for market transparency because home owners and tenants are primarily
interested in the space available and usable exclusively for themselves. We therefore believe that IPMS 3 will be the most used part of IPMS Residential and therefore in our response we have put most emphasize on this part of the standard. The IPMS 3 C gives the best representation of the area that is available for the home owner/occupier. So we think that also internationally this IPMS 3 C will be used most for the transparency of the consumer market. As most comparable with the widely used measurement code also in the Netherlands the IPMS 3C has the best chance to be accepted as a standard by governmental and private organisations in the Netherlands. Based on the experiences in the Netherlands some parts of the IPMS 3 C definition will create frequent changes in IPMS 3 C area of a property and avoidable costs for measuring the property. Most important elements are the definition on how to measure interior walls, areas with limited height, voids by staircases and areas concerning pitched roofs. These additions to the IPMS 3 C definition are necessary to make the IPMS 3 C uniform, efficient and transparent to a level that is comparable with the measuring practice based on the Dutch measuring code, NEN 2580. Because of these frequent changes and costs caused by this IPMS definition we don't expect that organisations in The Netherlands will accept the proposed IPMS Residential very easily.

29. NIMISH GUPTA - Nimish Gupta, India; The intent of the document is well appreciated. However, I do believe that the overall document is yet to achieve this. Improvements –
1. The format of the document is not very easy to read and correlate.
2. Measurement for vertical components in IPMS2 needs elaborate explanation including cases of voids deductions, interface of two finishes, treatment of projections/ depressions etc.
3. The terminology, since it follows a numbering system (eg. IPMS1,2,3,3A, 3B, 3C etc.) instead of naming conventions (as before e.g. Gross External Area, Net Internal Area) might create confusion. In addition, it could lead to potential contractual conflicts in case of a simple typing mistakes even.
4. The index in the document is missing making it a very discouraging read or referencing.

30. PCA - Nicholas Proud and Katharina Surikow, Australia; The Property Council supports the intention of the IPMSR to improve market
transparency and it is our view that this document will do so in many respects by providing greater consistency across the industry, if it is universally adopted. In saying that, this is likely to be a key issue in Australia as there are currently significant differences in methodology across State and Territory jurisdictions, and within industry itself. Whilst this is beyond the remit of the IPMSR to address, it must be considered if attempting to predict the success of the standard in improving market transparency. With regards to potential improvements, the diagrams in IPMS 3A appear to indicate that internal staircases are measured on each floor. It could be argued that this is not a transparent measurement, and we would suggest that this be amended to require measurement on a single level.

31. PAULO SERGIO - Paulo Sergio, Brazil; Yes.

32. PLANO E PLANO - Anonymous, Brazil; To be sure, it is a great leap forward in terms of standardising the language of real estate and its references.

33. PLOWMAN CRAVEN - Robertt Ash, UK; We believe that it will bring about a degree of consistency to the market. Transparency may only be achieved over time with growing consumer awareness.

34. PRIVATE RESPONSE - Anonymous, MENA; Yes.

35. RICS BULGARIA - Michaela Lashova, Bulgaria; There is a need to build on the standard to get it through to the consumer level. Currently, it requires knowledge and experience to apprehend the concept of the different standards. To involve consumers, further indicators of space efficiency could be developed on the basis of the standards to allow users to compare space usability.

36. RICS GERMANY - Rüdiger Hornung, Germany; Competing with strong local legislation and standards in Germany, very political topic.

37. RICS ITALY - Board Response, Italy; Yes.

38. RICS PORTUGAL - Group Response, Portugal; We think that the document is clear and objective.
39. RICS SWEDEN - Per Nördstrom, Sweden; **Achieve this.**

40. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; **IPMS allows now the reference to local practice (SIA 416) what increases the change of implantation. But there are still substantial difference in IMPS 2 und 3 referring Swiss practice.**

41. RISM - Dato' Sr Lau Wai Seang, Malaysia; **This has improve the market transparency and as a benchmark for the consumers. This has resolve the confusion in the methodology and measurement practice. The software for drafting the floor plan is not user friendly, i.e. CAD drawing and BIM data. The standard is easy to understand.**

42. SANE ENGENHARIA - Anonymous, Brazil; **Yes.**

43. SAPOA - Greg Pietersen, South Africa; **I think this is achieved. I think it is imperative to keep the final document brief and not too complex.**

44. SEBEL - Anonymous, Brazil; **Yes, the document achieves its goal, with the caveat that the private area is calculated by the external face of the walls in the common areas and not by the internal face of the apartment.**

45. SUNIL AGARWAL - Sunar Agarwal, India; **The document does achieve the intent to make the measurement transparent, however it must also address the community level areas built by a developer, i.e., the guard room and any community level amenities.**

46. TARJAB - Janaína Jardim de Almeida, Brazil; **Broadly speaking, it does achieve its goal. In my experience of more than 30 years as developer and builder, what I am concerned about is the clarity of floor areas, for residential property and other uses (garages, storage rooms, etc). I believe it is important to have a clear separation between the habitable and non-habitable areas. I don’t see a problem with including balcony areas in the total apartment area without separating from the internal area, but I believe it is important to have a clear distinction between what is habitable and non-habitable.**

47. TCA CONSULT - Anonymous, Brazil; **Yes.**
48. TENDA CONSULT - Anonymous, Brazil; Yes, it does.

49. ZIA - Sabine George, Germany; Yes but we have to mention that measurement standards for residential buildings are very important in different areas of the economy and politics. In Germany the owner occupation rate is only 43 percent which is far below the average in the European Union with 60 percent. Therefore measurement standards have an impact on the costs of living and rents and the measurement standards are regulated e.g. in Wohnflächenverordnung. On the first look there is no need for another standard. The goal to improve the market transparency for consumers can only be achieved if the IPMS standard and the Wohnflächenverordnung is convertible. If this convertibility is fulfilled IPMS: Residential Buildings improves the global transparency and comparability of the different national standards.

Response Summary: There were 49 responses to this question and a range of different opinions. On the whole the respondents felt that IPMS Residential Buildings improved market transparency for consumers. However a number of respondents stated that the standard required further clarification to be fit for purpose and others felt that a converter tool was required to improve comparability of different national standards.

SSC Rationale: The SSC considered the responses received and noted that respondents generally accepted the need for an international measurement standard though felt some areas required further clarification in order for the standard to be fit for purpose. The SSC has spent the past three months discussing these matters, consulting and revising the document in order to prepare an Exposure Draft for further consultation to ensure that IPMS Residential Buildings is fit for purpose prior to publication.

The Exposure Draft includes revised user friendly floorplans with text labelling and magnification of key measurement areas to provide further clarification. The SSC has also studied current market residential practices and have revised IPMS 3B in order to market needs.
Q2. Which of the standards IPMS 1, IPMS 2 Residential and IPMS 3A, 3B and 3C Residential would be relevant to your markets?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; All of them are relevant.

2. ALEXANDER SYMONDS - Noel Gehren, UK; Our predominant use for determining Residential Areas is as a result of a developer marketing and selling an apartment showing an area based IPMS 3B – Residential Apartments and then a purchaser measures the occupied space which often leads to litigation. The method most likely to be relevant would be IPMS 3B but measured to the internal face of shared walls between occupants.

3. AMVEST - Group Response, Netherlands; IPMS 2 and IPMS 3B. There is no information on IPMS 3C stated?

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; All the three Residential type are not relevant to our Market.

5. API - Kevin Thompson, Australia; IPMS 3A and IPMS 3B are the most relevant to the market in which we operate.

6. APPLEBY - Alan Appleby, UK; IPMS 3B Residential would be my preferred method of seeking consistency in figures used in UK valuation databases and analyses as well as rebuilding cost calculation for houses (GIA of individual flats already used for BCIS calc’s) thus avoiding the uncertainty caused by the potential 10-15% variance between the current GEA/GIA. This consistency should be enshrined in the new standards by making IPMS 3B – Residential the standard for valuation and rebuilding cost assessment (in UK at least).

7. ARRA - Nasreen Mahmoud Al Sawany, Ajman; I hope it is not too late. The following are the comments we received from surveyor firm implementing IPMS1 in one of the projects:
   • Mixed use floors/areas in a Residential building- The offices and shops in the ground floor were not coming directly under the purview of IPMS(Res 1). According to IPMS(Res1), those areas not directly residentially related has to be taken as part of Component H-Other
areas but as ancillary. We have taken the Shops and offices in tower as an ancillary part of the Other Areas Component-H. Their areas have not been taken into consideration in IPMSRes1 Area.
- Structural Columns part of the external wall enclosure. To be taken as Component B1(External wall) or Component B2(Internal Structural walls). We have taken all structural columns part of or along the external wall enclosure as part of the External wall-Component B1.
- The Doors or Lintel beams- To be part of the Wall element or the space element (Living area /Circulation Area). We have taken it as part of the space-for e.g. Living area or Circulation area.
- The ramps-do they come under Circulation(Component E) or Vertical penetration(Component A). We have taken it as part of the Vertical Penetration (Component A)
- The IPMS(Res1) Areas are taking into consideration the areas of all Vertical penetrations greater than 0.25 sq. m. into the final area.(Component A-Vertical Penetration) This is a considerable area which is not otherwise considered in the conventional area calculations.

8. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; IPMS1.

9. CASOI - Anonymous, Brazil; The information contained in all the standards is important – it depends on what the person who analyses any of the standards is interested in.

10. CAXTONS -Charles Oliver, UK; As valuation surveyors, we would use IPMS 2 {GIA} for houses as in diagram 6, but not as in diagram 5 for apartments, except for calculating reinstatement cost for insurance. IPMS 3B {GIA} seems to be the same as IPMS 2 for houses - there appears to be no difference between diagrams 6 and 12. You do not have a useful measurement for apartments. IPMS 3B is no good because no-one is going to measure to the middle of a wall, or even guess at how thick the wall is. 3C might be used by estate agents for apartments. What we need is 3B minus the walls between apartments (as in 3C) but including internal walls within each apartment (as in 3B). I can see no use for IPMS 1for property valuation, although it may be used by builders.

11. CHRIS OWTRAM ARCHITECTURE - Chris Owtram, United Kingdom; No.
12. C K WONG - C K Wong, Hong Kong; All of them are not relevant in the context of residential property sale/lease or valuation in the Hong Kong market. In Hong Kong, the definition of saleable area (SA) which is the measurement standard for residential properties is clearly laid down in the Residential Properties (First-hand Sales) Ordinance. Such definition also tallies with the Code of Measuring Practice and Supplement of HKIS for residential properties in Hong Kong. Comparing the definition of SA with IPMS 3A, apart from the differences in the treatment of ancillary accommodation (see answer to Q9), the full thickness of the walls separating adjoining units from common areas, lift shafts, light wells, staircases etc is included in the SA.

13. CLGE - Maurice Barbieri, Europe; IPMS 1 and IPMS 2 (IPMS 3X only as an application). All questions about IPMS 3 the CLGE GA unanimously has suggested to downgrade it as an application and not maintain it as a standard.

14. CURY - Ronaldo Cury, Brazil; IPMS 1 and IPMS 3A.

15. ENGELUX - Mario Junior, Brazil; IPMS 1 to measure floor area IPMS 3-A to measure what we currently call private area (área privativa), according to the Brazilian Standards. IPMS 3-C to measure free floor areas, excluding walls, for the exclusive use of the occupier IPMS 2 and IPMS 3B are not relevant.

16. ENPLAN - Anonymous, Brazil; IPMS 1, IPMS 3A and IPMS 3C.

17. ESURV - Chris Ellis, UK; IPMS 1 and IPMS 2.

18. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; All standards would be relevant to our markets, but the most applicable would be IPMS 1, IPMS 2 Residential and IPMS 3A Residential.

19. GIF - Dr. Ira Hörndler, Germany; IPMS 1, IPMS 2 (internal dominant face, limited use area), IPMS 3c.

20. JLL BRAZIL - Anonymous, Brazil; IPMS 1 and IPMS 3B.
21. KALLAS - Anonymous, Brazil; IPMS 1 to measure floor area.  
   IPMS 3-A to measure what we currently call private area (área privativa), according to the Brazilian Standards.  
   IPMS 3-C to measure free floor areas, excluding walls, for the exclusive use of the occupier.  
   IPMS 2 and IPMS 3B are not relevant.

22. KNIGHT FRANK AUSTRALIA - David Way, Australia; Refer to comments above regarding stairs. We generally exclude void above stairs.

23. KNIGHT FRANK LLP – Andrew Gooding, UK; The following proposed IPMS standards most closely resemble the existing standards used for the measurement of residential property in the UK:  
   IPMS 2 – Residential (Internal) is broadly equivalent to GIA under the current RICS Code of Measuring Practice.  
   IPMS 3B – Residential (Occupier) is broadly equivalent to NSA / GIA of a single unit under the current RICS Code of Measuring Practice.

24. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; IPMS 1 and IPMS 3A and 3C.

25. MBIGUCCI - Janaina Jardim de Almeida, Brazil; IPMS 1, IPMS 3A (with some changes), IPMS 3C.

26. MOHAMMED ALI - Mohammed Ali, UK; All of the standards would be relevant to my area of practice. I am involved in Mortgage Valuations, Homebuyer reports, Insurance Reinstatement valuations and drawing floor plans of residential properties for sale in the U.K.

27. NEERAJ BANSAL - Neeraj Bansal, India; IPMS 1 & IPMS 2.

28. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; If any, only IPMS 3C could be of relevance for the registration of properties, the property market and the valuation purposes. IPMS 1 might be of use when it comes to land use planning. IPMS 2 seems only relevant for dwellings and not for apartment buildings, because of the unequal allocation of common space.
29. NIMISH GUPTA - Nimish Gupta, India; All standards would be relevant to Indian market. However, if Real Estate Regulatory bill is approved the way it is envisaged, IPMS 3C will take prominence over others.

30. PAULO SERGIO - Paulo Sergio, Brazil; IPMS 3A.

31. PLANO E PLANO - Anonymous, Brazil; For our market, the most relevant standard is IPMS 3B.

32. PLOWMAN CRAVEN - Robert Ash, UK; Given that IPMS 3A, 3B and 3C incorporate the preceding definitions of IPMS 1 and IPMS 2, it begs the question as to why IPMS 1 and IPMS 2 have been included?

33. PRIVATE RESPONSE - Anonymous, MENA; All.

34. RICS BENELUX - Jeroen Govers, Belgium; IPMS 1 and IPMS 3A would be the most relevant to our Belgian market, under condition that terraces were to be excluded or weighted/ponderated and that there is a clear separation between shared surfaces and privately used surfaces – if not, none of the measurements are relevant.

35. RICS BULGARIA - Michaela Lashova, Bulgaria; In Bulgaria, differing market practices and standards co-exist, whereas new-builds are presented in a similar manner to the IPMS 1, including a number for the adjoining common area participation expressed in square meters. In the past, only the built areas for exclusive use were recorded in property deeds so these typically reflect the other two standards, depending on the market practice at the time.

36. RICS GERMANY - Rüdiger Hornung, Germany; IPMS 1, IPMS 2 and IPMS 3C;

37. RICS ITALY - Board Response, Italy; 3A for sale purposes, even if there is no common standard in Italy and very often, untransparently, common areas are included pro rata.

38. RICS PORTUGAL - Group Response, Portugal; IPMS 1, very similar with already used GEA, will likely be used for costing and planning. In Portugal the market is also already using a measurement criteria that
is similar to IPMS 3A. We think that given the existence of historical buildings where external walls are much thicker than in modern buildings the use of both IPMS 3A and IPMS 3B will be relevant.

39. RICS SWEDEN - Per Nördstrom., Sweden; All could be relevant, important to choose one standard and improve this one in several markets/countries.

40. RICS SWITZERLAND - Mr. Stämpfli, Switzerland;
   IPMS 1 = Geschossfläche SIA 416/0165.
   IPMS 2 = similar to Nettogeschossfläche SIA 416/0165 but including internal walls that is not Swiss practice.
   IPMS 3 = no reference to Swiss practice.

41. RISM - Dato' Sr Lau Wai Seang, Malaysia; This has improve the market transparency and as a benchmark for the consumers. This has resolve the confusion in the methodology and measurement practice. The software for drafting the floor plan is not user friendly, i.e. CAD drawing and BIM data. The standard is easy to understand.

42. SANE ENGENHARIA - Anonymous, Brazil; IPMS 1.

43. SAPOA - Greg Pietersen, South Africa; IPMS 1, IPMS 2 Residential would be relevant to our market. Our market uses the Gross Building Area and the Sectional Title Areas. You make no mention of Sectional Title Areas. Our SAPOA Method of Measuring Floor Areas, while noting the existence of Sectional Title Areas, specifically does not work by them. I don’t think we would use all three systems.

44. SEBEL - Anonymous, Brazil; IPMS 1, IPMS 3A and IPMS 3C.

45. SUNIL AGARWAL - Sunar Agarwal, India; IPMS 1 and 2.

46. TARJAB - Janaina Jardim de Almeida, Brazil; Especially IPMS 3A, 3B and 3C as the floor areas are the ones with the greater potential for conflict.

47. TCA CONSULT - Anonymous, Brazil; IPMS 1 and IPMS 2.

48. TENDA CONSULT - Anonymous, Brazil; IPMS 1, IPMS 3A and IPMS 3C.
Response Summary: There were 49 responses to this question and a range of different opinions. All the respondees would use at least one of the IPMS standards (IPMS 1, IPMS 2 or IPMS 3 A,B or C) and the majority of respondees said they would use more than one of the IPMS standards. A number of respondees also commented on the variance in existing measurement standards (eg GEA and GIA) and the similarity between one of the IPMS measurements standards and their existing national measurement standards.

SSC Rationale: The SSC considered the responses received particularly those in relation to the similarity between IPMS 2 and the current IPMS 3B and the need for a simple internal measurement standard excluding interior walls. The SSC have revised IPMS 2 to include the following qualification that “Private and Common Areas can be stated and identified separately” to meet European market needs. The SSC have also revised IPMS 3B to create an end user friendly measurement, which measures the internal area excluding external walls. The SSC will issue an Exposure Draft with further targeted questioning to provide feedback on the changes prior to the issue of IPMS: Residential Buildings.
Q3. How would you use IPMS 1, IPMS 2 Residential and IPMS 3A, 3B and 3C - Residential within the markets in which you operate?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; To define and compare floors areas and construction costs.

2. ALEXANDER SYMONDS - Noel Gehren, UK; IPMS 1, IPMS 2 – not likely to use IPMS 3A – could be used for valuations based on comparable sales in which area would be factor to consider. This is an efficient method of measurement and is likely to be used for bulk valuations for determining building values used in a government land tax system. Not practical for apartments without architectural drawings IPMS 3B – used for marketing and sales contracts of residential apartments.

3. AMVEST - Group Response, Netherlands; In our valuation and operation business in cooperation with valuers and property managers.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; As the three types are not relevant to our market, we don’t see this in use currently.

5. API - Kevin Thompson, Australia; IPMS 3A – standard residential dwellings and out buildings. IPMS 3B – apartments and multi storey units where external measurement is not appropriate.

6. APPLEBY - Alan Appleby, UK IPMS; 3B Residential would be my preferred method of seeking consistency in figures used in UK valuation databases and analyses as well as rebuilding cost calculation for houses (GIA of individual flats already used for BCIS calc’s) thus avoiding the uncertainty caused by the potential 10-15% variance between the current GEA/GIA. This consistency should be enshrined in the new standards by making IPMS 3B – Residential the standard for valuation and rebuilding cost assessment (in UK at least).

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; As stated in the document, subject to questions above.
8. CASOI - Anonymous, Brazil; Only for transactions involving agents in different countries, as we have an NBR in place which regulates the criteria for calculating areas.

9. CAXTONS - Charles Oliver, UK; IPMS 1 would not be used. IPMS 2 should only be used for houses. An amended IPMS 3B excluding walls between dwellings for apartments would be used. IPMS 3A is pointless and has no use.

10. C K WONG - C K Wong, Hong Kong: In the context of sales and purchase and valuation of residential properties, the use of IPMS 1, IPMS 2 Residential and IPMS 3A, 3B and 3C - Residential would be minimal in Hong Kong. The existing standard of measurement i.e. SA for residential properties in Hong Kong is well established and widely accepted by the general public. With the standardisation of the definition of SA in Hong Kong and the promulgation of the Residential Properties (First-hand Sales) Ordinance, developers and real estate practitioners are required to provide the SA when presenting information for sales and purchase or lease. SA and its definition are also included in the standard form of Agreement for Sale and Purchase.

11. CLGE - Maurice Barbieri, Europe; IPMS 1 would be mainly used for town planning purposes and for the planimetric representation of the building. It would also be a unit of measurement or representation for the building rights attached to the plot. IPMS 2 would mainly be used as a reference unit of measurement in valuation, property transactions, renting and building management. IPMS 3, in its proposed form, would not be used. We ask to downgrade it as an application.

12. CURY - Ronaldo Cury, Brazil; I would use IPMS1 to determine the construction cost for the built area. I would use IPMS 3A to determine the construction cost and the cost of sale based on private areas.

13. ENGELUX - Mario Junior, Brazil; IPMS 1 to measure floor area IPMS 3-A to measure what we currently call private area (área privativa), according to the Brazilian Standards. IPMS 3-C to measure free floor areas, excluding walls, for the exclusive use of the occupier. IPMS 2 and IPMS 3B are not relevant.
14. ENPLAN - Anonymous, Brazil; IPMS1 determines the plans, which are essential for calculating the occupation of a plot of land. IPMS 3A to determine the marketable area, the one we publish in sales documents. I’d use IPMS 3C to calculate the net area of rooms, which is important for housing programs, for example.

15. ESURV - Chris Ellis, UK; The same way as GEA and GIA are currently used, that is to give an approximate figure, but not one which is guaranteed accurate to within a percentage. This will guide the client on the overall building size but is not intended to be used for any other purpose. It is assumed that departures from both IPMS 1 and 2 would be agreed with lenders so that the open sided areas of balconies and rooftop terraces will not be included. There is also an issue with integral garages as lenders have different reporting requirements for this. These areas would not be measured or stated separately in our reports.

16. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; We would use IPMS 1 for planning purposes or the summary costing of development proposals. IPMS 2 Residential would be used for making efficient use of space and benchmarking data. We would use IPMS 3 Residential for transactions and more specifically IPMS 3 A Residential for buying and selling, IPMS 3C Residential for renting.

17. GIF - Dr. Ira Hördner, Germany; Due to local German regulations probably only for benchmarking and comparison; applying another standard than the German “Wohnflächenverordnung” is (still) possible, but would cause a lot practical and juridical problems.

18. CHRIS OWTRAM ARCHITECTURE - Chris Owtram, United Kingdom; IPMS2.

19. JLL Brazil - Anonymous, Brazil; IPMS 1 to calculate building costs – IPMS 3B to calculate market value.

20. KALLAS - Anonymous, Brazil; IPMS 1 to measure floor area IPMS 3-A to measure what we currently call private area (área privativa), according to the Brazilian Standards. IPMS 3-C to measure free floor
areas, excluding walls, for the exclusive use of the occupier IPMS 2 and IPMS 3B are not relevant.

21. KNIGHT FRANK AUSTRALIA - David Way, Australia; IPMS1 for analysis of the gross areas consistent with townhouse dwellings and IPMS3A with regards to apartments.

22. KNIGHT FRANK LLP – Andrew Gooding, UK; IPMS 2 could be used for the analysis of build costs of residential property. IPMS 3B could be used for the analysis of residential property values, residential property valuation and the statement of unit floor areas within property sales particulars.

23. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; I would use IPMS 3A as the net/usable area of an apartment and IPMS 3C as the internal area of an apartment.

24. MBIGUCCI - Janaina Jardim de Almeida, Brazil; IPMS 1 This would be used to measure the total area of a building, however, in some cases this area does not take into account the voids in a building and IPMS, on the other hand, does. This needs to be standardised in order to avoid discrepancies. In my opinion, such areas should not be taken into account. IPMS 2: I do not see a use for this standard. IPMS 3A This would be used for the area that goes into the development documents, however the walls which divide the common areas should be included in this figure – this would be equivalent to the “Private area of a non-proportional section” (Área privativa de divisão não proporcional) in NBR 12.721. IPMS 3B: I do not see a use for this standard. IPMS 3C This would be used as the effective area for the purchasers, currently known as “Sweeping area” (Área de varrição)

25. MOHAMMED ALI - Mohammed Ali, UK; Depending on the purpose of my report I would use them to portray to the consumer the type of measurements which have been taken for example external or internal.

26. NEERAJ BANSAL - Neeraj Bansal, India; The standards would support in some of the consulting services, Project feasibility, Project due diligence, verification of project budgets and Construction cost.
27. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; As stated in question 2, IPMS 1 could perhaps be used for land planning purposes. IPMS 2 seems irrelevant. Although the subdivision of the floor area in components can be useful, because of the fact that in the Netherlands most residential property is registered as the property that is available on an exclusive basis to an occupier, IPMS 2 could not be used as it is laid down at the moment. The IPMS 3A, B and C are closer to the uniform standard we use in the Netherlands and then IPMS 3 C is mostly directed towards the space available to the occupier of the property (homeowner), but we expect that measuring IPMS 3 C is much less efficient than measuring the usable floor area in the Netherlands and give less comparative insight in the space of the available living area.

28. NIMISH GUPTA - Nimish Gupta, India; There is still a lot of subjectivity in the Indian market for common platform on area measurements for residential buildings. However, as a cost consultant we would be using all the standards for various analytical needs.

29. PAULO SERGIO - Paulo Sergio, Brazil; For commercial purposes.

30. PLANO E PLANO - Anonymous, Brazil; As I mentioned before, IPMS 3B will be the most applicable standard for the real estate market. However, the other IPMS standards should be more relevant for engineering in cost benchmarking/standardisation and its references.

31. PLOWMAN CRAVEN - Robert Ash, UK; We would only expect to use IPMS 3.

32. PRIVATE RESPONSE - Anonymous, MENA; As a valuer, a consistent measurement standard will assist in the analysis of comparable information.

33. RICS BENELUX - Jeroen Govers, Belgium; IPMS 1 for gross calculation of building costs, based on a m² price. IPMS 3A for gross calculation of sales price / commercial value. Both under the same conditions as mentioned in the answer on Q2 (terraces).

34. RICS BULGARIA - Michaela Lashova, Bulgaria; For new-builds IPMS 1 generally represents both the total floor area and gross sellable area.
The IPMS 3 is applicable to rental properties but organized supply in the rental market barely exists.

35. RICS GERMANY - Rüdiger Hornung, Germany; In general only for international comparisons IPMS 1 for cost calculation, IPMS 2/3c for rental contracts

36. RICS ITALY - Board Response, Italy; It is fundamental that agents in transactions adopt this standard. The residential market in Italy is mainly end users (ie not institutional and mainly for sale purposes). Being the market so fractionalised, the end users are not market makers such as it could be in the office sector.

37. RICS OCEANIA - Group Response, Oceania; There are too many options for IPMS 3. If it is going to concentrate on the occupier, it should be to the internal walls and be on a unit by unit basis only. This would negate the requirements for IPMS 3A – to external walls and multiple occupancy and IPMS 3B – multiple occupancy. The thought is that IPMS 3 might be restricted to using IPMS3C internal occupier. This goes to make a clear distinction between IPMS 1, IPMS 2 & IPMS 3. IPMS 3 indicates that areas such as parking and remote storage should be included but stated separately. Firstly, there are no guidelines as to how precisely these areas should be measured e.g. a basement car space in a row not adjacent to a structural column: should it be to centreline of line marking or otherwise? Is it possible that their inclusion, albeit stated separately, could potentially confuse a client in terms of the area being provided? It is worthwhile noting that in Australia, measuring internal areas of apartments have been generally undertaken using Property Council of Australia guidelines. However, the banks / financiers now instruct valuers to measure the ‘Net Sellable Area’, that is “paint to paint”: for all intents and purposes gross internal living area to internal face of external walls, to face of internal walls (that is excludes area of internal walls), to internal face of shared walls and walls adjacent to common areas and plant. In addition, areas taken up by cupboards and wardrobes are also excluded. This yields a Net Trafficable / Selling Area. The point here is that the market (client) is driving the method of measurement. One reason is that legal disputes have arisen where owners taking possession contest the area actually provided and that “offered” off the plan. In one case an apartment which was purchased for over $9
million, relatively small floor areas differences from that provided in off plan sales created a large financial dispute. Car parking and remote storage are not included in NSA, but are measured and noted separately. Should IPSM take cognisance of what large clients such as banks / financiers require and their reasons for wanting to adopt particular methods. To confuse matters more, when valuers value a unit off the plan, they adopt the developer’s measurement, which is normally calculated in accordance with the PCA method which:

- Measures to outside face of all external walls;
- Includes all internal ducts / structure except if the duct or structure exceeds 1m2;
- Includes internal walls;
- Measures to centre line of shared walls and partitions
- Measures to inside face of structural faces at common walls to stairs, ducts and lifts.
- Carpark spaces and balconies / terraces excluded. It is suggested that IPMS 3 be adopted.

However, further consideration may be given to potential confusion of areas such as parking and storage being included (albeit stated separately) as opposed to being excluded but measured and stated separately. In addition, perhaps further consideration may be given to adopting the approach that space taken up by internal walls, wardrobes and cupboard space may be excluded from IPMS3 measurement. IPMS 3 (A, B and C) do not appear to provide definitive instructions on how to measure to external walls that are not vertical. Clear guidelines accompanied by sample drawings/diagrams would support clearer understanding. Provision of guidelines, for instance, where facades slope inwards or outwards would be helpful.

38. RICS PORTUGAL - Group Response, Portugal; IPMS 1 is already used for cost estimation, planning and, in some cases, by agents that distribute the GEA of common areas to the different apartments in a prorate basis. Agents that work in a more transparent way use IPMS 3A, that is similar to what in the Portuguese market is defined as Private Gross External Area, a concept that was brought by the Real Estate Tax law, published in 2003, where the measurement criteria’s are defined. IPMS 3B is similar to what valuer’s and agents are using for measurement of historical buildings where the external walls have
a big weight in the GEA. IPMS 2 will not likely be used in the market and IPMS3C, nevertheless being similar to what is defined in Portugal as Net Area, is not frequently used.

39. RICS SWEDEN - Per Nördstrom, Sweden; To secure measurement within dialogues’ with different parties.

40. RICS SWITZERLAND - Mr. Stämpfli, Switzerland;
   IPMS 1 = Geschossfläche SIA 416/0165.
   IPMS 2 = similar to Nettogeschossfläche 416 but including internal walls that is not Swiss practice.
   IPMS 3 = 3A is similar to IMPS 1, 3B and 3C have no references as the measurement of the window area is different to Swiss practice.

41. RISM - Dato' Sr Lau Wai Seang, Malaysia; We will identify the type of measurement standard that would be applicable to the residential property based on the judgment during site inspection.

42. SANE ENGENHARIA - Anonymous, Brazil; IPMS 1.

43. SAPOA - Greg Pietersen, South Africa; We have a well-recognized and tested system and would merely write an Addendum to our Method to highlight the differences and clarify some definitions.

44. SEBEL - Anonymous, Brazil; These standards, provided they are adopted and widely used in the market, will always be a comparative reference for the products.

45. SUNIL AGARWAL - Sunar Agarwal, India; IPMS to state the area to be built and IPMS for the area to be sold.

46. TARJAB - Janaína Jardim de Almeida, Brazil; Communicating clearly to the purchaser of a property the standard adopted and how it is calculated, this indicates transparency and minimises conflict – I believe this adds value.

47. TCA CONSULT - Anonymous, Brazil; In order to prepare valuation reports in a standardised way.

48. TENDA CONSULT - Anonymous, Brazil; IPMS 1 – to calculate the built area, rate of occupation and floor area for quotations.
IPMS 2 – this does not apply, unless the goal is to produce efficiency indicators.

IPMS 3A – this is equivalent to our private area (área privativa). This is required by municipal authorities, it is the apartment area for commercial purposes, it produces construction costs per square metre of area to be sold, and it also produces an efficiency indicator comparing construction cost and area to be sold.

IPMS 3B – this does not apply, unless the goal is to produce efficiency indicators.

IPMS 3C – this is equivalent to our “usable area” (área útil) with caveats. This is required by municipal authorities, it produces the cost of tiling the floor, it also produces an efficiency cost comparing net area and built area.

49. ZIA - Sabine George, Germany; Due to local German regulations probably only for benchmarking and comparison; applying another standard than the German “Wohnflächenverordnung” is (still) possible, but would cause a lot practical and juridical problems.

Response Summary: There were 49 responses to this question and a range of different opinions. The majority of respondees would use at least one of the IPMS standards. The majority of respondees stated that they would use IPMS 1 for town and land planning purposes, cost calculation and development appraisal and IPMS 2 or 3 for rental, sales, purchase and valuation of residential properties. On the whole all respondees felt that IPMS would be useful for various analytical needs and international comparisons.

SSC Rationale: The SSC considered the responses received and noted that nearly all the respondees could use IPMS 1, IPMS 2 Residential or IPMS 3A, 3B and 3C - Residential. The SSC noted that IPMS 2 and IPMS 3B were more or less equivalent and have slightly revised IPMS 2 and IPMS 3B and provided further clarification to the existing standards. The SSC will be issuing a further Exposure Draft to ensure IPMS is fit for purpose.
Q4. Within your residential market are there other measurement issues that the IPMS Residential Standard has not mentioned or clarified that you believe should be part of the IPMS Residential Standard?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; Yes – when does a balcony stop being a balcony and become a terrace?

2. ALEXANDER SYMONDS - Noel Gehren, UK; Measurement of buildings owned by Community Title.

3. AMVEST - Group Response, Netherlands; Some aspects of NEN2580 standard.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; Following are the points we believe are the issues in the above options that is not suitting to our requirement;
   1. The planning is not suited to our local market, the zoning mentioned in the above three options is not appropriate to our culture.
   2. The open kitchen concept doesn’t augur to our local cooking style.
   3. Hygiene areas to be secluded from main entrance area and to be attached with the bedrooms.
   4. Public, private space to be zoned properly within the residential unit.

5. API - Kevin Thompson, Australia; The chief concern is ensuring adoption of the standards by all associated industries and the clear reporting of which IPMS is adopted. There also needs to be public clarification from the likes of the PCA about previous measurement standards and how they relate/differ to the IPMS standards. Without this clarification, there is likely to be significant misunderstanding and resistance in various industries or slow adoption through the industry. In both IPMS 3A and IPMS 3B, the stairwell is measured on both levels. The standard within our market place is to not include void areas – hence only the ground floor or the first floor is measured, not both, as the whole area is not utilised as “floor space” on each level. I would also like clarification on IMPS 3a – measurement of areas
situated under the main roof structure but considered to be an external living area, eg an alfresco.

6. APPLEBY - Alan Appleby, UK; No.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Roof overhang. Roof areas supported by pillars without walls.

8. CASOI - Anonymous, Brazil; No.

9. CAXTONS - Charles Oliver, UK; Yes, an amended IPMS 38 excluding walls between apartments.

10. C K WONG - C K Wong, Hong Kong; The IPMS 3 does not specify the treatment of mechanical/plant rooms, swimming pool and the filtration plant room associated etc. that are exclusively used by the occupier.

11. CLGE - Maurice Barbieri, Europe; IPMS makes no differentiation between floor areas which are fully usable, i.e. floor areas which can accommodate standing humans and which have sufficient ceiling height to comply with health and safety legislation in the jurisdictions in which they are located. Furthermore, there are minimum floor areas and room dimensions defined in most jurisdictions, below which it would be illegal to use the area as habitable work space. Normally the area must be of a minimum size before it is considered fit for human habitation. Again IPMS makes no differentiation. Thirdly there are areas which, because of issues such as lack of ventilation, daylight, dampness or contamination, are deemed unfit for human occupation. All of these space should not be classified and treated in the same way as legally habitable areas. If the purpose of the standard is to allow comparison between floor areas internationally, then the areas must be broadly comparable. To treat a 1m square box room as comparable to 1m square of floor space in a large open room space, is misleading. Equally, to treat a floor area whose ceiling height is 1.5m as being equivalent to an area whose ceiling height is 2.1m creates anomalies which detract from the usefulness and transparency of the standard.

12. CURY - Ronaldo Cury, Brazil; No.
13. ENGELUX - Mario Junior, Brazil; External, open-air areas. Often, open-air leisure areas, or open-air car parks are important.

14. ENPLAN - Anonymous, Brazil; In this first reading, I have not identified any.

15. ESURV - Chris Ellis, UK; How to deal with rooms with sloping ceilings.

16. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; No comment.

17. GIF - Dr. Ira Hörndler, Germany; Verandas and terraces at ground floor level are not part of IPMS, but they are part of the German “Wohnfläche” and also IPMS 3c and therefore should be included in the components.

18. JLL Brazil - Anonymous, Brazil; No.

19. KALLAS - Anonymous, Brazil; External, open-air areas. Often, open-air leisure areas, or open-air car parks are important.

20. KNIGHT FRANK AUSTRALIA - David Way, Australia; IPMS1 – analysis of costs $/sqm. Freestanding dwellings. Not that we undertake costings but it will provide a check and discussion point around building/floor plate efficiencies etc. IPMS2 – Typically used by residential valuers for completed apartments. We are currently trying to get consistency and convert them to an equivalent to IPMS3A so analysis is consistent with the government databases which are predominantly gross. We are doing this via registration of areas on Plan of Subdivisions. IPMS3 – A version of 3A apartments via the Property Council definition is used for project valuations and marketing. 3A Residential consistent with a gross floor area used for detached housing – refer to void above stair comments. 3B Apartments utilised by RPV’s once buildings are complete except they don’t midpoint walls, external only. 3C – not used in the market as far as I know. Occasionally referred to in court cases.

21. KNIGHT FRANK LLP - Andrew Gooding, UK; If market transparency with residential consumers is a key objective, we do not consider that the term “internal dominant face” will be readily understood by most
consumers. The issue is further confused by the fact that this term only applies to external walls; internal walls are measured to either the finished surface or the centre-line, as applicable. This leads us to concerns as how readily this could ever realistically be understood by the market, the difficulties as to how to measure to the centre line of a wall and the potential for concerns that this standard is intended to increase the amount of space stated within a residential unit when the actual size of the unit has remained unchanged.

We do not consider that there is any particular reason for there to be commonality between the standards relating to offices and residential property in this respect.

22. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; No.

23. MBIGUCCI - Janaina Jardim de Almeida, Brazil; As far as the objectives set out in the document, I believe the changes suggested in these answers would allow the standard to achieve those objectives.

24. MOHAMMED ALI - Mohammed Ali, UK; I believe the IPMS Residential standards have comprehensively clarified all issues in my area of practice.

25. NEERAJ BANSAL - Neeraj Bansal, India; No.

26. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; Yes. Our commonly used standard NEN 2580 provides directions how property is measured both uniformly and efficiently. Amongst other, the most important issues are as followed. First of all a very important element in NEN 2580 is the exclusion of areas with limited height. Because we have many residential buildings with a pitched roof in the Netherlands, it is of great importance for both valuers and brokers to be able to exclude areas with less than 1.5 m free height, because these areas are of no use for normal living activities. Furthermore all interior walls with the residential property are disregarded. In modern houses interior walls can easily be placed and demolished and all these simple building activities will result in a change in IPMS 3 C area. Also stairwells smaller than 4.0 m² are disregarded and there is a clear guidance on how (not) to measure minor constructive elements. Minor constructive elements like coves,
columns and other small constructive elements smaller than 0.5 m² are disregarded. This has a very large influence on transparency as well as efficiency of the measuring process. We believe there might be possibilities to subdivide the floor area available on an exclusive basis to an occupier (IPMS 3) into different components (for instance living area, storage space). That way there will be more possibilities for national practices in the IPMS.

27. NIMISH GUPTA - Nimish Gupta, India; Since common measurements standards are yet to be adopted in Indian market, it may not be prudent to comments on this.

28. PAULO SERGIO - Paulo Sergio, Brazil; No.

29. PCA - Nicholas Proud and Katharina Surikow, Australia; An Australian industry issue that the IPMSR has not addressed as currently drafted is the use of individual room dimensions on plans in marketing collateral, which are often misrepresented. For example, it is common for a 2.97m x 2.89m bedroom to be described as a 3.0m x 3.0m bedroom in marketing collateral, without indication of whether:

- the dimensions allow for building tolerances if sold off the plan,
- joinery robes are included or not,
- allowances are made for odd shaped rooms, and
- the measurement is to the finished surface of the wall or the skirting if measured at finished floor level.

30. PLANO E PLANO - Anonymous, Brazil; In some cases, there could be references to the total common area relative to the discreet unit. Another important point that should be mentioned is the existence of private stock rooms located in commons areas of the development, but which belong to a specific unit.

31. PRIVATE RESPONSE - Anonymous, MENA; See comments below relating to balconies used exclusively for situating air-conditioning units and external surfaced covered car parking.

32. RICS BENELUX - Jeroen Govers, Belgium; Terraces have to be calculated separately. Centre-line in walls separating private use from shared use should be used (not internal wall). Stairs should not be calculated for 100% of their surface on every floor.
33. RICS BULGARIA - Michaela Lashova, Bulgaria; The redistribution of common areas related to the inclusion of the external walls. In IPMS 2 or 3. Local standards and practices do include parts of the wall as these parts depend on the type of the IDF – whether a window, a balcony door or a dead wall. But built-up areas as we call it would generally include some of the external walls and all vertical elements such as columns.

34. RICS GERMANY - Rüdiger Hornung, Germany; In general only for international comparisons IPMS 1 for cost calculation, IPMS 2/3c for rental contracts.

35. RICS ITALY - Board Response, Italy; No. Even if there is no common standard in Italy and very often, untransparently, common areas are included pro rata.

36. RICS PORTUGAL - Group Response, Portugal; No.

37. RICS SWEDEN - Per Nördstrom., Sweden; No.

38. RICS SWITZERLAND - Mr. Stämpfl, Switzerland; IPMS shows on page 23 a different measurement of the windows area. Swiss practice does not include this space but takes the internal dominant face (like < 50% glazing).

39. RISM - Dato’ Sr Lau Wai Seang, Malaysia; No, because the IMPS is able to clearly identify the measurement standard for the residential property. The concern is on the measurement to be included for extension of the property during inspection.

40. SANE ENGENHARIA - Anonymous, Brazil; Yes, floor areas and other areas available in the development.

41. SAPOA - Greg Pietersen, South Africa; My only comment was the use of Area calculations done in accordance with the Sectional Titles Act.

42. SEBEL - Anonymous, Brazil; The concept of equivalent area (área equivalente).
50. SUNIL AGARWAL - Sunar Agarwal, India; As per answer to Q1. The document does achieve the intent to make the measurement transparent, however it must also address the community level areas built by a developer, i.e., the guard room and any community level amenities.

43. TARJAB - Janaína Jardim de Almeida, Brazil; I think it would be very good if the standard could also take into account the concept of modular coordination, which is standardised in Brazil, but not very well known. I believe it would be very good, in order to reduce costs, if all involved had in mind that the project should be developed in a modular grid and the measurement standards should reflect this.

44. TCA CONSULT - Anonymous, Brazil; No.

45. TENDA CONSULT - Anonymous, Brazil; No.

46. ZIA - Sabine George, Germany; Verandas and terraces at ground floor level are not part of IPMS, but they are part of the German “Wohnfläche” and also IPMS 3c and therefore should be included in the components.

Response Summary: There were 36 responses to this question. The majority of responses said that there were no other measurement issues to be added to the standard. Further responses asked for further clarification on the measurement of balconies, verandas and terraces. Other responses asked for IPMS to include differentiation between private and common areas or required further clarification on measurement boundaries such as IDF, sloping walls or roof overhangs.

SSC Rationale: The SSC have revised the existing floor plans and included magnification of measurement boundary lines to provide clarification on IDF, sloping walls and roof overhangs. The SSC have also revised IPMS 2 to include the possible incorporation of private and common areas if required. The revised IPMS: Residential Buildings Exposure Draft also incorporates additional guidance on the measurement of balconies, verandas and terraces.
Q5. IPMS: Residential Buildings has adopted Internal Dominant Face in order to maintain consistency across all IPMS Standards. Please advise whether you support this or whether you have an alternative proposal and if so what is it and why? How would you address the resulting inconsistency with IPMS Office Buildings?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; I am Ok with this, as long as there is consistency. I do however have a problem with balconies and covered walkways being included. IPMS Standards are defining floor area standards which will be used ultimately in construction, and with ICMS. Balconies do not have foundations, a proper roof or external walls, and as such would produce a skewed construction per sq.m cost. I would prefer these to be excluded, we would then value them separately.

2. ALEXANDER SYMONDS - Noel Gehren, UK; I agree with the use of dominant face. However in the IPMS standard the term Finished Surface is used for internal walls. If dominant face is used throughout there would be less confusion. Sometimes on a mezzanine floor there is no wall but possibly a balustrade surrounding a void. How can these be defined – to the edge of the floor or to the inside face of the balustrade?

3. AMVEST - Group Response, Netherlands; Amvest only invests in residential property.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; In our opinion, IPMS standards for the Indian subcontinent will be different from the other global standards.

5. API - Kevin Thompson, Australia; We have no issue with this proposal. The inconsistencies could be addressed by reporting both the IPMS measurement as well as the current adopted method. Once the IPMS measurement has been adopted within all markets then the original method of measurement calculations could be phased out of reporting. Unfortunately there needs to be a period of adjustment rather than an instant change.
6. APPLEBY - Alan Appleby, UK; I support consistency in whichever form it arrives and what greater consistency can there be than an International Standard.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; There are practical time problems in measuring to the glass face when walls are available. Most clients would look at these areas as being limited by the wall and not by the glass window, which can be looked upon as a movable item as they can be replaced without changing the wall to wall floor area.

8. CASOI - Anonymous, Brazil; It would be necessary to compare the NBR criteria with the ones in IPMS in order to assess whether there would be significant discrepancy between both criteria. For instance, if there is a reduction of private areas under IPMS, I believe this would cause difficulties for the adoption of IPMS by the industry.

9. CAXTONS - Charles Oliver, UK; We use Floor Area (as defined), so if a window does not reach the floor, we will measure to the wall under the window (the Finished Surface as defined in section 1.1). If the window does reach the floor, then it will be included such as a bay window. If an occupant cannot put furniture in a window, then it should be excluded.

10. CHRIS OWTRAM ARCHITECTURE - Chris Owtram, United Kingdom; I support this.

11. C K WONG - C K Wong, Hong Kong; The gist to maintain consistency across all IPMS standard is appreciated but in practice it is hard to do so. There are practical difficulties in adopting the Internal Dominant Face approach. In Hong Kong, architectural floor plans showing the internal/external elevation are hard to obtain, not available or not up-to-date in particular after alteration or for older or existing properties. Service Providers would most likely state that IPMS 2-residential, IPMS 3B and/or IPMS 3C are not feasible due to lack of floor plans.

12. CLGE - Maurice Barbieri, Europe; We support the idea of consistency across all IPMS standards. The concept of Internal Dominant Face introduces anomalies which render the standard less than useful as a basis of comparison between buildings. Because of the existence of
these anomalies (outlined later in this document) we recommend that the concept of Internal Dominant Face be abandoned and measurements be taken of actual floor area as measured immediately above skirting board level, i.e. to the inner face of the permanent external structural and weatherproofing envelope of a building. This concept should be used for all IPMS standards, including the already published IPMS Office Buildings. If it is desired to retain the concept of Internal Dominant Face then the anomalies outlined later must be resolved. As will be outlined further in this response, we are convinced that this would prove a very difficult task, if indeed it could be achieved at all.

13. CURY - Ronaldo Cury, Brazil; No.

14. ENGELUX - Mario Junior, Brazil; Despite being different from the Brazilian measurement standard, it seems to me that it is more important to keep the world-wide standard.

15. ENPLAN - Anonymous, Brazil; I support it.

16. ESURV - Chris Ellis, UK; Internal Dominant Face is a reasonable basis for measuring internally.

17. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; We support adoption of Internal Dominant Face in order to maintain consistency across all IPMS Standards.

18. GIF - Dr. Ira Hörndler, Germany; We fully agree and support the idea of the internal dominant face for IPMS Residential.

19. JLL Brazil - Anonymous, Brazil; I do not see any problems with this.

20. KALLAS - Anonymous, Brazil; Despite being different from the Brazilian measurement standard, it seems to me that it is more important to keep the world-wide standard.

21. KNIGHT FRANK AUSTRALIA - David Way, Australia; IPMS1 – analysis of costs $/sqm. Freestanding dwellings. Not that we undertake costings but it will provide a check and discussion point around building/ floor plate efficiencies etc. IPMS2 – Typically used by residential valuers for
completed apartments. We are currently trying to get consistency and convert them to an equivalent to IPMS3A so analysis is consistent with the government databases which are predominantly gross. We are doing this via registration of areas on Plan of Subdivisions. IPMS3 – A version of 3A apartments via the Property Council definition is used for project valuations and marketing. 3A Residential consistent with a gross floor area used for detached housing – refer to void above stair comments. 3B Apartments utilised by RPV’s once buildings are complete except they don’t midpoint walls, external only. 3C – not used in the market as far as I know. Occasionally referred to in court cases.

22. KNIGHT FRANK LLP - Andrew Gooding, UK; If market transparency with residential consumers is a key objective, we do not consider that the term "internal dominant face" will be readily understood by most consumers. The issue is further confused by the fact that this term only applies to external walls; internal walls are measured to either the finished surface or the centre-line, as applicable. This leads us to concerns as how readily this could ever realistically be understood by the market, the difficulties as to how to measure to the centre line of a wall and the potential for concerns that this standard is intended to increase the amount of space stated within a residential unit when the actual size of the unit has remained unchanged.

We do not consider that there is any particular reason for there to be commonality between the standards relating to offices and residential property in this respect.

23. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; For architecture and for measurements needed for property development, I don’t see the need to adopt these standards, it could have fewer component areas.

24. MBIGUCCI - Janaina Jardim de Almeida, Brazil; I agree.

25. MOHAMMED ALI - Mohammed Ali, UK; I support adopting the internal dominant face in order to maintain consistency.

26. NEERAJ BANSAL - Neeraj Bansal, India; Internal dominant face would provide the common benchmark for measurement and provide the consistency across other IPMS codes as well.
27. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; *It would be advisable not to use the Internal Dominant Face, for it will lead to less transparency in measuring residential property and has a large influence on measuring costs. The definition of the vertical sections is very poor and will lead to many different interpretations. In the Netherlands there is difference between the commonly used standard for office buildings (rentable floor area) with a definition comparable with the dominant Face and for residential buildings (usable floor area) in which the dominant face is not used and the measurements are to the wall with disregard of small constructive elements. There is no problem with "'inconsistency'" when using dominant face for offices and not for residential property.*

28. NIMISH GUPTA - Nimish Gupta, India; *I am ok with the internal dominant face. In the office buildings, the internal face of the external skin may be chosen as the internal dominant face. Also, in case of virtual segregation of spaces between various occupants, a common standard convention may have to be adopted.*

29. PAULO SERGIO - Paulo Sergio, Brazil; *I support it.*

30. PCA - Nicholas Proud and Katharina Surikow, Australia; *The use of Internal Dominant Face is in principle supported by the Property Council, as it aligns with the rules applied to office buildings. IPMSR 3A or 3B would be used to communicate to purchasers what they are buying at the point of sale. However, it conflicts with how title plans are currently measured in many jurisdictions in Australia. This would require government and industry consensus and a significant change to current business practices if it were to be adopted in Australia.*

31. PLANO E PLANO - Anonymous, Brazil; *I support it. This would eliminate the construction method for measuring discreet units and IPMS 3B would be less widely used, as is the current situation.*

32. PLOWMAN CRAVEN - Robert Ash, UK; *The precedent has been set with IDF internationally. As long as the use of ‘Limited Use Areas’ remains, there is some recourse to normality.*
33. PRIVATE RESPONSE - Anonymous, MENA; I believe it is important to maintain consistency and Internal Dominant Face should be used. However, see comments below about the use of terms wall-floor junction, finished surface, exterior, external, outer, internal, interior face. Consistency in the use of terms needs to be maintained.

34. RICS BENELUX - Jeroen Govers, Belgium; It is a good and useful way of measuring. However, when no sections are available, and it is impossible to determine the 50% rule, a default measurement should be defined.

35. RICS BULGARIA - Michaela Lashova, Bulgaria; Again, this is related to the redistribution of common areas. Under the current practice units with greater external wall exposure would benefit from the IPMS approach as these types of common areas are redistributed with equal weight to units of commensurate size but less favourable exposure. The inclusion of a larger portion of the external wall (with windows) in the unit area is determined better access to natural light.

36. RICS GERMANY - Rüdiger Hornung, Germany; We fully agree and support the consistency of the internal dominant face for all IPMS standards.

37. RICS ITALY - Board Response, Italy; In my opinion IPMS, as far as possible, should be the same for all sectors. Keeping the measurement revolution simple will help its success. Measurement should have one standard (broken down by several levels). The price given to different uses (ie balconies) should vary depending on the main use of the property transacted/valued (ie resi or office).

38. RICS PORTUGAL - Group Response, Portugal; The normal in Portugal is to make the measurement to the floor-wall junction. Nevertheless, in order to maintain the consistence we think that the concept should be the same across all IPMS Standards.

39. RICS SWEDEN - Per Nördstrom, Sweden; Support this.
40. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; Including internal dominant face is not in accordance with Swiss practice and therefore not practicable.

41. RISM - Dato' Sr Lau Wai Seang, Malaysia; No comment.

42. SANE ENGENHARIA - Anonymous, Brazil; I support it.

43. SAPOA - Greg Pietersen, South Africa; We have had this aspect in our Method since June 1985.

44. SEBEL - Anonymous, Brazil; Yes.

45. SUNIL AGARWAL - Sunar Agarwal, India; I am fine with the internal dominant face.

46. TARJAB - Janaína Jardim de Almeida, Brazil; I support this procedure and I believe it is clear for residential property. In principle, I have not detected any inconsistencies for commercial property.

47. TCA CONSULT - Anonymous, Brazil; support it.

48. TENDA CONSULT - Anonymous, Brazil; We agree with applying the concept of internal dominant face.

49. ZIA - Sabine George, Germany; We fully agree and support the idea of the internal dominant face for IPMS Residential.

Response Summary: There were 49 responses to this question and the majority of responses supported Internal Dominant Face and recognised that both dual reporting and Limited Use Areas would aid comparison with existing national standards. However a number of responses felt that the definition of both Internal Dominant Face (‘IDF’) and Vertical Section required further clarification.

SSC Rationale: The SSC considered the responses received and noted that the majority of responses supported the concept of Internal Dominant Face. However the SSC also noted that further clarification was required within the definitions and Floor Plans. The SSC have now
revised the definition of both the IDF and Vertical Section now retitled IDF (Internal Dominant Face) Wall Portion within the Exposure Draft to make the definitions more user friendly.
Q6. Are the explanatory diagrams and text description for Internal Dominant Face sufficient? If not, what specific diagrams or explanation do you require?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; They look fine to me.

2. ALEXANDER SYMONDS - Noel Gehren, UK; Paragraph 4.2.3 explains that columns are excluded. Window mullions and window frames should also be commented on. Sometimes window mullions and structural columns are quite wide and are difficult to distinguish from a wall, there should be a maximum width for them to be excluded eg 0.5m. Clarity required as to whether window frames are included or excluded, often frames are the same width as the walls. There are cases where no single vertical part of a wall constitutes more than 50% of the wall ie vertical steps in walls or different glazing eg sash windows. Show example of door.

3. AMVEST - Group Response, Netherlands; Preferably 3D and additional focus on slant roofs and outdoor private area’s.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; They are sufficient in terms of description. But we do not see alignment of design planning requirements to the current way of designing of residential units.

5. API - Kevin Thompson, Australia; Yes, they are sufficient however there is no diagram for height requirements within IPMS 3B or 3C depicting where to measure on internal walls adjoining those that are not vertical. Example: an upper level “loft space” with walls slanting on a 45 degree angle to the vertical. Is the floor area to be measured? If so, this may be very different to the actual effective useable area.

6. APPLEBY - Alan Appleby, UK; Yes.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Ok.

8. CASOI - Anonymous, Brazil; They are sufficient.
9. CAXTONS - Charles Oliver, UK; Yes.

10. CHRIS OWTRAM ARCHITECTURE - Chris Owtram, United Kingdom; Yes.

11. C K WONG - C K Wong, Hong Kong; No comment.

12. CLGE - Maurice Barbieri, Europe; No. Please see our detailed response, later in this document.

13. CURY - Ronaldo Cury, Brazil; They are sufficient.

14. ENGELUX - Mario Junior, Brazil; They are sufficient.

15. ESURV - Chris Ellis, UK; Yes, they are clear and sufficient.

16. ENPLAN - Anonymous, Brazil; They are sufficient.

17. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; Explanatory diagrams and text description for Internal Dominant Face are sufficient.

18. GIF - Dr. Ira Hörndler, Germany; The colouring of the ground plan should follow the colouring of the components.

19. JLL Brazil - Anonymous, Brazil; They are sufficient.

20. KALLAS - Anonymous, Brazil; They are sufficient.

21. KNIGHT FRANK AUSTRALIA - David Way, Australia; IPMS1 – analysis of costs $/sqm. Freestanding dwellings. Not that we undertake costings but it will provide a check and discussion point around building/ floor plate efficiencies etc. IPMS2 – Typically used by residential valuers for completed apartments. We are currently trying to get consistency and convert them to an equivalent to IPMS3A so analysis is consistent with the government databases which are predominantly gross. We are doing this via registration of areas on Plan of Subdivisions. IPMS3 – A version of 3A apartments via the Property Council definition is used for project valuations and marketing. 3A Residential consistent with a gross floor area used for detached housing – refer to void
above stair comments. 3B Apartments utilised by RPV’s once buildings are complete except they don’t mid-point walls, external only. 3C – not used in the market as far as I know. Occasionally referred to in court cases.

22. KNIGHT FRANK LLP – Andrew Gooding, UK; No specific comments / concerns.

23. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; They are sufficient.

24. MBIGUCCI - Janaina Jardim de Almeida, Brazil; I agree.

25. MOHAMMED ALI - Mohammed Ali, UK; The diagrams and text descriptions are sufficient.

26. NEERAJ BANSAL - Neeraj Bansal, India; Additional diagrams can be added for features such as projected windows, door window combinations etc. which are common in residential buildings.

27. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; No. The definition of the vertical sections is very poor and will lead to many different interpretations. The diagrams do not clarify this. That is one of the reasons why we advise not to use dominant face in this definition of IPMS Residential.

28. NIMISH GUPTA - Nimish Gupta, India; It would help to have some worked examples, similar to Code of Measuring Practice 6th Edition.

29. PAULO SERGIO - Paulo Sergio, Brazil; Yes.

30. PCA - Nicholas Proud and Katharina Surikow, Australia; The Property Council requests clarification be provided that the dominant face in the context of ‘glazing’ is the actual glass face and not the window frame assembly. Current elevation view shows the frame included where the plan view points to the glass surface. This clarification is required for circumstances where a window is broken up into multiple panels with ‘colonial bars’ in a frame (popular in the post-modernist approach), where the actual frame surface could affect the dominant face areas in lieu of the glass. This could also be manipulated with the frame type/size/alignment. Further clarification is also required.
whether apartment building portion of walls may technically be
owned by the Owners Corporation, in the relevant circumstances.
Some service risers included within these areas may not be accessible
or used exclusively either, and again clarification may be helpful. For
housing on zero lot boundaries, and in some instances in apartment
buildings, easements will give use to non-owners. Clarification may be
required here also.

31. PLANO E PLANO - Anonymous, Brazil; Yes, they are sufficient;
however, I did not find any guidance on which of the existing IPMS
standards would be recommended at each stage of communication.

32. PLOWMAN CRAVEN - Robert Ash, UK; No. Diagram 8 is a copy from
IPMS: Office Buildings and needs to be more ‘residentially’ related. It
clearly looks like an office interior and not a residential dwelling.

33. PRIVATE RESPONSE - Anonymous, MENA; None.

34. RICS BENELUX - Jeroen Govers, Belgium; Diagram for vertical section
is missing.

35. RICS BULGARIA - Michaela Lashova, Bulgaria; They are absolutely
okay.

36. RICS GERMANY - Rüdiger Hornung, Germany; Yes.

37. RICS ITALY - Board Response, Italy; Yes.

38. RICS PORTUGAL - Group Response, Portugal; Yes, they are clear
enough.

39. RICS SWEDEN - Per Nördstrom., Sweden; Sufficient.

40. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; Mostly yes. We believe
to see inconsistence in diagrams on page 27 and 29 as in unit 1 und 4
the surface of the two small windows has been included but not the
surface of the two bigger windows just next to?

41. RISM - Dato' Sr Lau Wai Seang, Malaysia; The explanatory diagrams
and text description would able to provide better understanding to
the reader. We would able to referred the diagram if the description is not clear enough.

42. SANE ENGENHARIA - Anonymous, Brazil; Ok.

43. SAPOA - Greg Pietersen, South Africa; I think they are more than adequate.

44. SEBEL - Anonymous, Brazil; Yes. They are clear.

45. SUNIL AGARWAL - Sunar Agarwal, India; The diagrams are sufficient.

46. TARJAB - Janaína Jardim de Almeida, Brazil; They are not sufficient. For me, both the definition of internal dominant face and the calculation of the finished surface relative to the vertical section were confusing. I found them needlessly complicated and complex – it could and should be simpler.

47. TCA CONSULT - Anonymous, Brazil; They are sufficient.

48. TENDA CONSULT - Anonymous, Brazil; Yes, this is clear.

49. ZIA - Sabine George, Germany; The colouring of the ground plan should follow the colouring of the components.

Response Summary: There were 49 responses to this question and the majority of responses said that the explanatory diagrams and text for IDF were sufficient. However some respondees felt that the labelling of the Floor Plans could be improved and others requested further clarity on the IDF measurement boundary lines within the Floor Plan to include detailing for projected windows and door window combinations etc.

SSC Rationale: The SSC considered the responses received and noted further clarification of IDF was required within the Floor Plans. The SSC have revised the Floor Plans within the Exposure draft to include Floor Plans for detached, semi-detached, attached houses and apartments. The labelling within the Floor Plans has been revised to give text indication of living room, bedroom, kitchen and bathroom areas. The Floorplans have also been revised to include magnifications to provide
magnification of key IDF measurement boundary lines such as projected windows and adjoining walls.
Q7. Are all other diagrams clear in demonstrating the concepts to which they apply?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; No.

2. AMVEST - Group Response, Netherlands; Yes.

3. ANSHUMAN MAGAZINE - Anshuman Magazine, India; Yes.

4. API - Kevin Thompson, Australia; Yes.

5. APPLEBY - Alan Appleby, UK; Yes.

6. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Ok.

7. CASOI - Anonymous, Brazil; Yes.

8. CAXTONS - Charles Oliver, UK; Yes, but we would prefer to measure to the Finished Surface.

9. C K WONG - C K Wong, Hong Kong; The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.

10. CLGE - Maurice Barbieri, Europe; There are issues with most of the diagrams which we have detailed at the appropriate point in this response form. As a general comment there are cases where the small scale of the diagram makes it difficult to identify the features to which colour coding applies. Thought should be given to rectifying this by increasing the scale, where appropriate, or by inserting detailed insets at a larger scale.

11. CURY - Ronaldo Cury, Brazil; Yes.

12. ENGELUX - Mario Junior, Brazil; Yes, they are clear.
13. ENPLAN - Anonymous, Brazil; *At the moment, they do.*

14. ESURV - Chris Ellis, UK; *Yes.*

15. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; *All other diagrams are clear.*

16. GIF - Dr. Ira Hörndler, Germany; *Diagram 7 on page 22: the marked area includes structural walls (Component B2) but excludes internal non-structural elements (Component B3)? Is that correct?*

17. JLL Brazil - Anonymous, Brazil; *Yes.*

18. KALLAS - Anonymous, Brazil; *Yes, they are clear.*

19. KNIGHT FRANK AUSTRALIA - David Way, Australia; *IPMS1 – analysis of costs $/sqm. Freestanding dwellings. Not that we undertake costings but it will provide a check and discussion point around building/floor plate efficiencies etc. IPMS2 – Typically used by residential valuers for completed apartments. We are currently trying to get consistency and convert them to an equivalent to IPMS3A so analysis is consistent with the government databases which are predominantly gross. We are doing this via registration of areas on Plan of Subdivisions. IPMS3 – A version of 3A apartments via the Property Council definition is used for project valuations and marketing. 3A Residential consistent with a gross floor area used for detached housing – refer to void above stair comments. 3B Apartments utilised by RPV’s once buildings are complete except they don’t midpoint walls, external only. 3C – not used in the market as far as I know. Occasionally referred to in court cases.*

20. KNIGHT FRANK LLP – Andrew Gooding, UK; *No specific comments / concerns.*

21. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; *Yes.*

22. MBIGUCCI-Janaina Jardim de Almeida, Brazil; *The diagram concerning the areas for the glass panes are a little confusion, but it can be understood.*
23. MOHAMMED ALI - Mohammed Ali, UK; *All the diagrams are clear.*

24. NEERAJ BANSAL - Neeraj Bansal, India; *Yes.*

25. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; *The floor plans lack detail. Besides the chosen colours are not very distinctive. We refer to the plans given in the NEN 2580 standard to give a more clear representation of the definitions given.*

26. NIMISH GUPTA - Nimish Gupta, India; *Since it is a broad concept paper, it does indicate the concept demonstration.*

27. PAULO SERGIO - Paulo Sergio, Brazil; *Yes.*

28. PCA - Nicholas Proud and Katharina Surikow, Australia; *The use of colour coding is helpful in explaining the concepts, however as per above, there are some issues that require further clarification, in particular with relation to the internal dominant face measurements as they apply to glazing. Further, the residential dwelling component diagrams require further clarification on the following issues:*

   - 2 and 3 level individual residences are seeing a trend towards dedicated lifts. Is a lift/shaft floor area within a house counted once or multiple (2 or 3) times depending on the number of floors within the dwelling? Lifts are different to stairs for which areas are counted at each level because it is a finished surface at each level, but technically the lift floor is only a single surface that moves to each floor and should therefore be counted only once. This is not clear in the current draft document.

   - Service risers for air conditioning etc. are generally excluded from measurements if they exceed one metre square, otherwise the actual useable floor efficiency could be dramatically affected – is this to be the case in the IPMSR?

   - *Diagrams would be clearer if they included options for the garage under the main dwelling roof.*

   - *Diagrams would also be clearer if they included protuberances within the façade wall line (engaged piers for example) and how they are to be measured.*
The definitions for all diagrams must also include the point of measurement clearly, i.e. at finished floor level. Many dwellings have facades where the gross area can vary significantly depending on the point of measurement. For example, apartment buildings with highly articulated facades with voids might result in artificially inflated areas compared to actual useable areas. Finally, the inconsistency between IPMSR 1, 2 and 3, and IPMSO will present challenges for mixed use buildings, and projects which are a change of use for buildings.

29. PLANO E PLANO - Anonymous, Brazil; Yes, they show them clearly, however I suggest indicating their applications.

30. PLOWMAN CRAVEN - Robert Ash, UK; Yes. A few minor edits required.

31. PRIVATE RESPONSE - Anonymous, MENA; No.

32. RICS BENELUX - Jeroen Govers, Belgium; Ok.

33. RICS BULGARIA - Michaela Lashova, Bulgaria; Exactly.

34. RICS GERMANY - Rüdiger Hornung, Germany; Drawing Page 22: the marked area includes structural walls (Component B2) but excludes internal non-structural elements (Component B3)? Is that correct?

35. RICS ITALY - Board Response, Italy; Yes.

36. RICS PORTUGAL - Group Response, Portugal; We think that in Diagram 2 Residential/Dwelling a basement with parking area, very common in Portugal, should be included.

37. RICS SWEDEN - Per Nördstrom., Sweden; Yes.

38. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; Yes.

39. RISM - Dato' Sr Lau Wai Seang, Malaysia; Yes, all the diagram are very clear in demonstrating the concepts to which they apply.

40. SANE ENGENHARIA - Anonymous, Brazil; Ok.

41. SAPOA - Greg Pietersen, South Africa; The colours next to each other, for example, in a common wall can be very difficult to read. Nobody
with impaired vision or colour blindness should attempt to read this!
Sometimes the use of hatching or cross hatching is more effective
than colour.

42. SEBEL - Anonymous, Brazil; Yes.

43. SUNIL AGARWAL - Sunar Agarwal, India; IPMS 1, IPMS 2 are ok, IPMS 3 needs to be better. Also a demonstration with actual measurements would have been better.

44. TARJAB - Janaína Jardim de Almeida, Brazil; Yes.

45. TCA CONSULT - Anonymous, Brazil; As far as I understand, yes.

46. TENDA CONSULT - Anonymous, Brazil; Yes, all clear.

47. ZIA - Sabine George, Germany; Diagram 7 on page 22: the marked area includes structural walls (Component B2) but excludes internal non-structural elements (Component B3)? Is that correct?

Response Summary: There were 47 responses to this question and a range of different opinions. On the whole the respondees felt that the other diagrams were clear in demonstrating the concepts to which they apply. However a number of respondees commented on balcony and terraced areas and requested further clarification on the magnification of these and other areas.

SSC Rationale: The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Q8. IPMS: Residential has adopted Level 0, Level 1 and Level 2 to denote what in some markets would be called ground, first and second floor and in other markets floor 1, 2 and 3. Will this approach be understood in your market?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; Yes.

2. ALEXANDER SYMONDS - Noel Gehren, UK; Yes.

3. AMVEST - Group Response, Netherlands; Yes.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; Yes, majority of the users adopt Ground Floor, First Floor respectively compared to the adopting levels.

5. API - Kevin Thompson, Australia; No.

6. APPLEBY - Alan Appleby, UK; Yes.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Yes.

8. CASOI - Anonymous, Brazil; I believe they would be understood.

9. CAXTONS - Charles Oliver, UK; Yes.

10. C K WONG - C K Wong, Hong Kong; Acceptable in Hong Kong.

11. CLGE - Maurice Barbieri, Europe; We are aware of the different approaches in different cultures to floor level nomenclatures in a building. Provided that it is clearly stated, which system of description is being used, we see no problem.

12. CURY - Ronaldo Cury, Brazil; Yes.

13. ENDELUX - Mario Junior, Brazil; It is different from what we use, but it will be easily understood.

14. ENPLAN - Anonymous, Brazil; Yes.
15. ESURV - Chris Ellis, UK; Yes, because where lenders state how floors are to be numbered, it is usually on this basis.

16. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; This approach will be understood.

17. GIF - Dr. Ira Hörndler, Germany; Yes.

18. JLL Brazil - Anonymous, Brazil; It certainly will.

19. KALLAS - Anonymous, Brazil; It is different from what we use, but it will be easily understood.

20. KNIGHT FRANK AUSTRALIA - David Way, Australia; Not sure. Happens infrequently enough for it not to be considered for any length of time. You describe it in IPMS2 and from my understanding the residential valuer undertaking a net area assessment will ignore the window and revert to any part of the wall unless it is all window. I think your logic is fine but it’s not something I grapple with as we consider areas more closely aligned to IPMS3A. As for inconsistency with an office use I’m not sure that it is relevant because the user of the space will have a different mindset as to what their space entails ie a residential user typically considers the gross area and an office user the net area.

21. KNIGHT FRANK LLP – Andrew Gooding, UK; No specific comments / concerns.

22. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; Yes.

23. MBIGUCCI - Janaina Jardim de Almeida, Brazil; Yes.

24. MOHAMMED ALI - Mohammed Ali, UK; The approach would be understood in my market however to the average consumer I believe it would be easier to understand ground floor, first floor etc.

25. NEERAJ BANSAL - Neeraj Bansal, India; Yes.

26. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; Yes.
27. NIMISH GUPTA - Nimish Gupta, India; I would believe that Indian market will still correspond to Ground floor etc. nomenclature.
28. PAULO SERGIO - Paulo Sergio, Brazil; Yes, levels 0, 1 and 2 will be understood.

29. PCA - Nicholas Proud and Katharina Surikow, Australia; In principle, these definitions will be accepted in the Australian residential market. The Property Council suggests the use of -1, -2 etc. for floors below ground to ensure consistency. Consideration must also be given to the treatment of mezzanines within floors. The key for the Australian market is definition disclosure, rather than the specific content.

30. PLANO E PLANO - Anonymous, Brazil; Yes, this would be understood without any major problems.

31. PLOWMAN CRAVEN - Robert Ash, UK; A fair compromise.

32. PRIVATE RESPONSE - Anonymous, MENA; Yes.

33. RICS BENELUX - Jeroen Govers, Belgium; Yes – however, there should be a definition for mezzanine levels, split-levels ad other specific cases.

34. RICS BULGARIA - Michaela Lashova, Bulgaria; Yes.

35. RICS GERMANY - Rüdiger Hornung, Germany; Yes.

36. RICS ITALY - Board Response, Italy; Yes.

37. RICS PORTUGAL - Group Response, Portugal; Yes. In Portugal the ground floor is already defined as Level 0.

38. RICS SWEDEN - Per Nördstrom, Sweden; Yes.

39. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; Yes.

40. RISM - Dato' Sr Lau Wai Seang, Malaysia; Yes, the reader would able to understand it as as the numeric number is used consistently.
41. SANE ENGENHARIA - Anonymous, Brazil; Yes, without any problems.

42. SAPOA - Greg Pietersen, South Africa; Yes.

43. SEBEL - Anonymous, Brazil; Yes, there needs to be a clear definition of ground level.

44. SUNIL AGARWAL - Sunar Agarwal, India; Yes.

45. TARJAB - Janaína Jardim de Almeida, Brazil; This can cause confusion. The “ground” level is not always “level 0”, perhaps both elements can work together. For example Level 0 (garage), Level 1 (ground floor) etc. When the ground floor is raised, calling it Level 0 can be confusing.

46. TCA CONSULT - Anonymous, Brazil; Yes.

47. TENDA CONSULT - Anonymous, Brazil; Yes.

48. ZIA - Sabine George, Germany; Yes.

Response Summary: There were 48 responses to this question and the majority of respondees felt that the adoption of Level 0, Level 1 and Level 2 to denote what in some markets would be called ground, first and second floor and in other markets floor 1, 2 and 3 was acceptable. Some respondees further commented that this was acceptable providing that the user clearly states which system of description is being used when dual reporting is adopted.

SSC Rationale: The SSC considered the responses received and noted that respondees overwhelmingly accepted the floor labelling adopted within IPMS: Residential Buildings. However the SSC have supplied some further clarification within the Exposure Draft to ensure that IPMS Residential Buildings is fit for purpose.
Q9. IPMS 1 currently excludes ground floor patios from the total measurement, as the ground floor is not actually part of the building structure, although they can be measured and stated separately. A similar upper floor balcony is however included, as it forms part of the building structure, albeit is stated separately. Do you have any comments on this approach?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; Yes as above. Ground floor being excluded is fine, but including balconies in my view is a mistake, repeating the question above, when does a balcony become a terrace?

2. ALEXANDER SYMONDS - Noel Gehren, UK; These areas could be excluded in IPMS 1 as a Gross External Building Area. IPMS3 deals with exclusive use areas so any ground floor areas reserved for the exclusive use of one occupier should be included in the area. Patios and balconies should form part of the total area but should be listed separately for every level in IPMS3.

3. AMVEST - Group Response, Netherlands; Both always to be included.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; The ground Floor Patio and other common areas form part of the Builder Common areas and the ratio of that area will be proportional to the Residential unit area. The balconies are defacto part of the residential unit area.

5. API - Kevin Thompson, Australia; Any area that is an extension of or part of the dwelling should be delineated. As a ground floor patio is a usually a structure of a different material to the dwelling, the separation of these is a sound process.

6. APPLEBY - Alan Appleby, UK; As long as consistently applied it should be fine.

7. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Ok.
8. CASOI - Anonymous, Brazil; There should be some information around whether the open-air areas are on the ground or on a level of a building, and the main use (leisure equipment, car park, garden, swimming pool, etc.)

9. CAXTONS - Charles Oliver, UK; The area should be the enclosed building, but the balcony could be stated separately although we would not normally measure it.

10. C K WONG - C K Wong, Hong Kong; In Hong Kong, a balcony, verandah or utility platform which forms part of a residential property is included in the SA of the residential property (according to the above-mentioned ordinance), whereas the areas of roof, terrace, yard, garden, parking space and other components that are of ancillary nature are excluded but are measured and listed separately as ancillary accommodations.

11. CLGE - Maurice Barbieri, Europe; We are happy that balconies should be included, but it is important that a differentiation is made between balcony space and living space. In general it would be useful if there was a fuller and unambiguous definition of these features (balcony, terrace, patio, logia, etc.) and the differences between them, in the definitions section of the document.

12. CURY - Ronaldo Cury, Brazil; No.

13. ENGELUX - Mario Junior, Brazil; It is important to have specific criteria for the open-air areas on the ground floor. For example - leisure areas, car parks, technical areas, etc. We often have private open-air areas at ground level, which are not addressed by this standard.

14. ENPLAN - Anonymous, Brazil; No comments.

15. ESURV - Chris Ellis, UK; It is not necessary to include any of it for valuation purposes. It will not be measured or stated separately in our reports.

16. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; No comment.
17. GIF - Dr. Ira Hörndler, Germany; See Q4.

18. JLL Brazil - Anonymous, Brazil; No.

19. KALLAS - Anonymous, Brazil; It is important to have specific criteria for the open-air areas on the ground floor. For example - leisure areas, car parks, technical areas, etc. We often have private open-air areas at ground level, which are not addressed by this standard.

20. KNIGHT FRANK AUSTRALIA - David Way, Australia; All of our measurements are based on defining the gross area of internal living space except for where storage is readily accessible from living space. Patios would be excluded from our analysis for consistency. The more difficult component is a fully lined and plumbed winter garden which can be fully enclosed, typically with louvres allowing air and access to outside light. Developers argue it forms part of the living area and should be part of the assessment, valuers will exclude it but if doing their job properly will use comparisons to apartments with similar winter garden specifications so as to compare like with like.

21. KNIGHT FRANK LLP – Andrew Gooding, UK; We consider that ground floor patios should be treated as for upper floor balconies – i.e. included but stated separately.

22. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; No.

23. MBIGUCCI - Janaina Jardim de Almeida, Brazil; I agree.

24. MOHAMMED ALI - Mohammed Ali, UK; I believe the patio should be included in the total measurement, if it exclusively belongs to the dwelling which is being measured, as it makes it easier to understand for the average consumer.

25. NEERAJ BANSAL - Neeraj Bansal, India; Patio, paved areas or semi-covered areas if added to IPMS 1 may benefit in taking out the estimates for the total area where construction is required.

26. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; It might be advisable to include one definition of all area that is located outside the outer wall, but is part of the
building structure. This could for instance be a component such as ‘attached outside area’. This way there can be no misunderstanding about whether or not an area is to be considered a balcony or not.

27. NIMISH GUPTA - Nimish Gupta, India; Since the ground floor patios have a much larger span and better finishes (generally and most of the time in residential apartments), I believe they should be included in the calculations in IPMS1.

28. PAULO SERGIO - Paulo Sergio, Brazil; No.

29. PCA - Nicholas Proud and Katharina Surikow, Australia; The approach taken is generally acceptable for housing, assuming that the land lot area is measured and provided separately. The approach also assumes that occupant exclusive use areas at ground level in apartment buildings, for example courtyards and terraces, are measured. Clarification on this issue would be useful.

30. PLANO E PLANO - Anonymous, Brazil; In terms of the area for sale, the criterion is well established. Whereas in terms of cost, in theory an open-air ground-floor area is cheaper than an indoor ground-floor area, therefore different terms should be used.

31. PLOWMAN CRAVEN - Robert Ash, UK; Given the precedent of IPMS: Office Buildings, we do not see any alternative.

32. PRIVATE RESPONSE - Anonymous, MENA; No further comments, this approach is logical. However, if the patio is covered how should it be treated? I note that covered galleries (which may or may not be partially enclosed) are included as part of a building but stated separately. In this context, should the definition of “Building” be revised to be “An independent, fully enclosed structure forming part of a property”. If the words “fully enclosed” are not included, should an open-sided but covered deck or pagoda (which can be independent structures forming part of a property) be considered a building under IPMS? In some climates these are used as permanent living space.

33. RICS BENELUX - Jeroen Govers, Belgium; I believe this is a mistake – terraces on ground floors and terraces or balconies on upper floors are not always a part of the building (e.g. prefab concrete terraces)
and certainly have different construction prices and sales values than the rest of the building. They should therefore be stated separately.
A difference can be made for terraces within the building structure (covered) and terraces hanging on facades (prefab).

34. RICS BULGARIA - Michaela Lashova, Bulgaria; This is very similar to the local building codes. In apartment projects however, I would doubt the legality of the exclusive rights over patios as they are not recognized as separate properties, neither as attachments to the apartments even if physically fenced, screened or otherwise outside access is blocked.

35. RICS PORTUGAL - Group Response, Portugal; No.

36. RICS SWEDEN - Per Nördstrom., Sweden; No.

37. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; Swiss practice calculates balconies and patios as “outer surface” and includes both balconies and patios.

38. RISM - Dato’ Sr Lau Wai Seang, Malaysia; This is depended on the building structure. If the patio is considered as AFA then we would required to measure it. It is depend on the measurement standard we are using, i.e. Local measurement standard or international measurement standard.

39. SANE ENGENHARIA - Anonymous, Brazil; No, I agree with the standard.

40. SAPOA - Greg Pietersen, South Africa; We handle it similarly.

41. SEBEL - Anonymous, Brazil; The need to quantify ground-level gardens.

42. SUNIL AGARWAL - Sunar Agarwal, India; This is fine.

43. TARJAB - Janaína Jardim de Almeida, Brazil; No.

44. TCA CONSULT - Anonymous, Brazil; No.

45. TENDA CONSULT - Anonymous, Brazil; No.
46. ZIA - Sabine George, Germany; Verandas and terraces at ground floor level are not part of IPMS, but they are part of the German “Wohnfläche” and also IPMS 3c and therefore should be included in the components.

Response Summary: There were 46 responses to this question and a range of different opinions. On the whole the respondees were in agreement with the way that IPMS: Residential Buildings dealt with ground floor patios/terraces and balconies. Further respondees also commented that as these areas were also measured and stated separately it provided them with the flexibility to adjust IPMS measurements to meet the needs of their national standard. However a number of others felt that there was some inconsistency in the way ground floor patios/terraces and balconies were dealt with in IPMS.

SSC Rationale: The SSC considered the responses received and noted that there were some inconsistencies in the way that ground floor patios/terraces and balconies were treated within IPMS. The SSC have revised the text within IPMS: Residential Buildings Exposure Draft to iron out any inconsistencies and have also added further clarification within the revised Floor Plans.
Q10. Do you have any other comments?

Consultation Responses:

1. ADAIR ASSOCIATES - Justin Sullivan, UK; I would encourage as much feedback as possible on this from the newly formed ICMS coalition as it will be inheriting standards which might be problematic, which then might reduce their appropriateness for various markets.

2. ALEXANDER SYMONDS - Noel Gehren, UK; The standards appear to have been prepared with assumption that areas will predominantly be calculated from architectural design plans. This is often not the case and when physically measuring areas it is sometimes difficult to identify vertical penetrations, columns, ducts etc. It is also often not possible to get access to adjacent apartments so determining the centre lines of walls is often not achievable and can add considerable time and cost. Community Title ownership often extends to the internal face of walls surrounding the apartment. The external walls, structural walls, walls shared with common areas and walls shared between adjoining apartments are part of the common building structure. Measuring to the centre line of walls shared between occupiers is not only impractical but often contravenes what is actually owned. Require additional standard IPMS 3D – Same as IPMS 3B but to Finished Surface of shared walls between occupants and exclude Component A areas i.e. Vertical Penetrations greater than 0.25m² from the area.

3. AMVEST - Group Response, Netherlands; No, thank you.

4. ANSHUMAN MAGAZINE - Anshuman Magazine, India; Nil.

5. APPLEBY - Alan Appleby, UK; No.

6. CAMPBELL D FERGUSON - Campbell D Ferguson, Spain; Spanish Measurement Definition of Floor areas. (N.B. This is not the same as the RICS Measuring Practice). It includes all the private area plus, usually indicated separately, common area that is allocated to the property. Measurements are externally ‘overwall’, but exclude internal patios without roofs. Permanently covered balconies, terraces, porches and similar are included at 50% of their surface, unless they are enclosed on three sides in which case they are taken
at 100%. Areas with headroom of less than 1.5 m are excluded. The common areas are calculated by applying the percentage.

7. CASOI - Anonymous, Brazil; I don’t have enough technical knowledge to make more detail and specific suggestions.

8. CAXTONS - Charles Oliver, UK; You have not commented specifically on integral garages, although internal parking is mentioned in the definition of component H on page 10. These should be included in IPMS 1, but excluded from IPMS 2 and IPMS 3, but stated separately.

9. C K WONG - C K Wong, Hong Kong; The floor area of the residential unit appears to be “inflated” as IPMS 3 (3A, 3B or 3C) includes attics, cellar, terrace, parking area; some of which are of ancillary nature or of limited use ie. limited height, above/below ground, limited natural light etc despite the fact that they need to be separately stated and identified. In Hong Kong, the main accommodation including the living/dining area, bedrooms, kitchen and bathrooms are included in the SA, items that are considered as ancillary such as roof, terrace, garden and parking space are excluded from the SA and are measured and stated separately. The Hong Kong Government has standardised the definition of SA since 2008 with a view to promoting transparency and enhancing clarity of information in the sales description of residential properties. The definition also tallies with the Code of Measuring Practice and Supplement of HKIS.

10. CLGE - Maurice Barbieri, Europe; Please refer to our detailed analysis in the rest of this response form, particularly the issues related to Internal Dominant Face, our preference for using actual measured floor area immediately above skirting level, the differentiation between Fully Usable Floor Space and Restricted Use Space, in particular the issue of minimum ceiling height, and the standardisation of concepts, particularly the specification of Component Areas, across all IPMS standards, i.e. retro-fitting to IPMS Office Buildings. Finally we would ask that the arbitrary and inconsistent nature of IPMS 3 be review in the light of our comments and the issues surrounding legal restrictions, such as party walls and “available and exclusive use” could be addressed.

11. CURY - Ronaldo Cury, Brazil; No.
12. ENGELUX - Mario Junior, Brazil; No.

13. ENPLAN - Anonymous, Brazil; No.

14. ESURV - Chris Ellis, UK; The RICS Code includes under GEA habitable outbuildings which share at least one wall with the main building. It also includes pavement vaults, garages and conservatories. None of these features are specifically mentioned in IPMS 1.

15. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria; No comment.

16. JLL Brazil - Anonymous, Brazil; No.

17. KALLAS - Anonymous, Brazil; No.

18. KNIGHT FRANK AUSTRALIA - David Way, Australia; Well done on the detailed nature of the paper.

19. KNIGHT FRANK LLP – Andrew Gooding, UK; Please see responses to the remaining questions below.

20. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; It is important and necessary that this proposed method of measurement should not clash with the current NBR, which is known and used by the real estate market, government bodies, notaries public, etc.

21. MBIGUCCI - Janaina Jardim de Almeida, Brazil; No.

22. MOHAMMED ALI - Mohammed Ali, UK; No other comments.

23. NEERAJ BANSAL - Neeraj Bansal, India; No.

24. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands; We miss the efficiency of the measuring work as an important criterion to evaluate the different choices in the standard. For instance in the Netherlands we neglect some small features like the size of the stairwell when it is smaller than 4,0 m² or a radiator(duct) to speed up the measuring work as well using a floorplan as when measuring within the property itself. Defining
which minor building components may be neglected and which not, will improve consistency in measuring and will improve the efficiency in measuring.

25. NIMISH GUPTA - Nimish Gupta, India; Documents needs a lot refining even for a review purposes as the unformatted look without an index discourages reading.

26. PAULO SERGIO - Paulo Sergio, Brazil; No.

27. PCA - Nicholas Proud and Katharina Surikow, Australia; In Australia, common areas in apartment buildings are measured by surveyors and consideration should be given to the implications of the adoption of IPMSR if these areas are used exclusively, shared with the public (mixed use buildings) or shared with specific others (easements). Although beyond the scope of the IPMSR process, the Property Council believes it is important that any method of measurement, including the IPMSR, be regularly reviewed and updated in a manner similar to the way the Australian Building Code is updated regularly. This will ensure that it remains relevant and any jurisdictional nuances can be dealt with. The Property Council is of the view that there are certainly advantages to the adoption of the IPMS Residential method of measurement; however its application in Australia will require significant education and agreement of industry and governments to change current methods and requirements. Similarly, industry will need to ‘sign up’ to the change its practices if the implementation of the IPMSR is to succeed. There will still be interest in retaining other methods of measurement, however there is some alignment of the IPMSR to Property Council’s Method of Measurement for Residential Property guide and this makes the new methods of measurement easier to adopt. Ultimately, the single largest hurdle to the adoption of the IPMSR in Australia is the multiple different legislative requirements under State and Territory laws, which have resulted in differences in methodology across jurisdictions. This is generally more of a problem for apartment and higher density dwelling developments than for detached dwellings. The task of harmonising these and achieving consensus is a significant one, and will likely take some time to achieve. Once harmonised, legislative requirements have been implemented, there will also be a requirement to harmonise what is reported on marketing collateral.
to ensure that it is an accurate reflection of what is constructed. Again, this is likely to be a lengthy and complex process in Australia.

28. PRIVATE RESPONSE - Anonymous, MENA; IPMS will evolve as each asset class is dealt with. However, where definitions and concepts are shared across IPMS, consistency needs to be maintained between the IPMS for each asset class. There are a number of areas where IPMS Residential builds-on and improves upon IPMS Office and serious consideration should be given to updating the latter at the same time or as soon as possible thereafter. For example:
- Across all IPMS, definition and concepts need to be consistent;
- IPMS Office Measurement Practice is better introduced as part of each Standard rather than Part 2 2.2.1 General
- Across all IPMS, the explanation of Internal Dominant Face should be introduced under Part 2 Principles of Measurement 2.4 Interface Adjustment, not as part of IPMS 2.
- Across all IPMS, Component Areas should be introduced as a separate section (rather than under IPMS Office IPMS 23). It will be helpful to have a common set of component areas across all IPMS.
- Across all IPMS, Use does not need to include a long list of possible service providers/users (as it does in IPMS Office for example Page 13 3.2.1) who are already defined in Part 1, the approach in IPMS Residential is preferable.
- Across all IPMS, diagrams need keys/annotations and superfluous buildings/structures should be removed to avoid confusion.

29. RICS ITALY - Board Response, Italy; Why IPMS Resi 3 has 3 levels (A,B,C) and IPMS 3 office don’t?

30. RICS PORTUGAL - Group Response, Portugal; No.

31. RICS SWEDEN - Per Nördstrom., Sweden; No.

32. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; We would appreciate additional IPMS excluding internal walls and columns.

33. RISM - Dato' Sr Lau Wai Seang, Malaysia; The effort to produce IPMS would able to improve the communication between all the users.

34. SANE ENGENHARIA - Anonymous, Brazil; No.
35. SUNIL AGARWAL - Sunar Agarwal, India; *Some more examples with actual measurements of different typology of houses and buildings will do good and will be helpful.*

36. TARJAB - Janaína Jardim de Almeida, Brazil; *For commercial purposes, the balcony areas are included as part of the floor area. I think it is important to settle this procedure, as balcony areas are often signed off as “non-accountable areas” by the municipal authorities, this can also cause confusion. Areas which are exclusive for an owner/occupier but not forming a contiguous area with the property (storage rooms, car park spaces) should always be reported separately.*

37. TCA CONSULT - Anonymous, Brazil; *No.*

38. TENDA CONSULT - Anonymous, Brazil; *In order to create a universal language, it is necessary to work on standardisation with governmental bodies in charge of the legal requirements and planning permissions. Some of the concepts set out in the IPMS standards, although they have the goal of standardisation, do not comply with some of the specific requirements of these bodies.*

**Response Summary:** There were 38 responses to this question and a range of different opinions. On the whole the majority of respondees had no other comments in relation to IPMS: Residential Buildings. However a number of respondees felt that more examples with actual measurements of different typology of houses and buildings would be helpful and other respondees requested an additional IPMS 3 excluding internal walls and columns.

**SSC Rationale:** The SSC considered the responses received and have revised IPMS: Residential Buildings to provide further guidance on the measurement of detached, semi-detached and attached houses and apartments through some minor text revision and the addition of further Floor Plans. The SSC have also revised IPMS 3B to provide a new measurement excluding internal walls and columns.
Page 3. Introduction

Consultation Responses:

1. CLGE - Maurice Barbieri, Europe; In the last paragraph of the Introduction (page 4). It states that “the SSC researched global residential markets and identified three different measurement bases….IPMS 3A - Residential, IPMS 3B - Residential and IPMS 3C - Residential”. In a European context we find these three bases to be of little use, but there are other variations, which could be valuable, which are not considered. This issue will be described later in the appropriate part of the response form. The limitation of the standard to residential buildings only, is unnecessary. The standard is of a nature that can apply to a much wider range of buildings.

2. GIF - Dr. Ira Hörndler, Germany; No.

3. MOHAMMED ALI - Mohammed Ali, UK; The introduction is good and informative, covering all the points to set the scene for the rest of the document.

4. NEERAJ BANSAL - Neeraj Bansal, India; Information provided is sufficient.

5. PLOWMAN CRAVEN - Robert Ash, UK; Some grammatical mistakes within ‘Welcome’ section, page 2.

6. RICS SWITZERLAND - Mr. Stämpfli, Switzerland; None, corresponds to same chapter in office buildings definitions.

7. RISM - Dato' Sr Lau Wai Seang, Malaysia; The introduction is very simple. It address the formation of the standard by the coalition members. The introduction is transparent to the reader.

Response Summary: There were 7 responses to this question and the majority of respondees felt the introduction was clear and transparent.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 6. 1.1 Definitions

Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK; Internal Dominant Face – mention sloping walls to the wall/floor interface. Mullions and window frames excluded. If there is no part more than 50% it should be the majority of the vertical section. Common Facilities - Facilities that are not for the exclusive use of a single occupier. Common facilities are similar to Vertical Penetrations – less than 0.25m² to be disregarded. Vertical Section - Ignoring window mullions and window frames. When a vertical section changes at a column the step should be measured to the centre of the column.

2. API - Kevin Thompson, Australia; Space Measurement Professional – this is ambiguous. “Qualified by experience or training to measure buildings in accordance with IPMS” – does this indicate that professionals trained under other methods now require further training specifically in accordance with IPMS? Or are they left to interpret the document themselves and that is sufficient? Also, the Space Measurement Professional is also listed under Service Provider as an example, but Service Provider is then used in the definition of Space Measurement Professional. Therefore the definition of Space Measurement Professional is linked back to itself in a loop. Would it be better to remove the definition of Space Measurement Professional and combine it with Service Provider? There is a definition for “Vertical Section” and the definition of “Internal Dominant Face” includes the term “Vertical Section”. There needs to be a definition to accommodate non vertical walls as commonly found in the upper level of multiple storey dwellings where the roof space has been utilised as genuine living space.

3. CAXTONS - Charles Oliver, UK; IPMS 3A is of no use, and does not comply with the definition of IPMS 3 in 1.1 as "The Floor Area available on an exclusive basis to an occupier." It should be deleted. Then IPMS 3B could be re-named IPMS 3A and defined as the area of exclusive occupation measured to the internal Finished Surface of the perimeter wall of each dwelling including components 83, D and G and internal structural walls in component 82, as shown in diagram 12 (except the space in the windows). IPMS 3C would remain as it is,
but re-named IPMS 38, except it would be measured to the Finished Surface instead of the Internal Dominant Face.

4. CLGE - Maurice Barbieri, Europe; The definitions provided need further clarification, expansion and refinement. The definitions of Internal Dominant Face and Vertical Section, in particular, are ill-defined and ambiguous. In principle, we disagree with the concept of Internal Dominant Face and would prefer a concept based on Usable Floor Area, but even if we were to accept the IDF concept, the definition needs a more detailed explanation to make it fully understandable and coherent. We will provide further detail analysis at the appropriate points in the response form.

5. GIF - Dr. Ira Hörndler, Germany; No.

6. MOHAMMED ALI - Mohammed Ali, UK; All the definitions are clear and easy to understand.

7. NEERAJ BANSAL - Neeraj Bansal, India; All components are defined
PRIVATE RESPONSE - Anonymous, MENA “Where definitions and concepts are shared across IPMS, consistency needs to be maintained between the IPMS for each asset class. IPMS Office uses the term Standard Facilities, IPMS Residential uses Common Facilities. The concept is the same, would it not be better to adopt a common term across all asset class standards? Personally, I prefer the term Common Facilities to Standard Facilities. Should the definition of “Building” be revised to be “An independent, fully enclosed structure forming part of a property”. If the words “fully enclosed” are not included, should an open-sided but covered deck or pagoda (which are independent structures forming part of a property) be considered a building? In some climates these are used as permanent living space. The definition under IPMS Residential introduces “unallocated parking”. The IPMS Office definition should be updated to match.

8. RICS BENELUX - Jeroen Govers, Belgium; Finished surface – heating and cooling units and window sills or casings can take up a lot of useful surface – it should be possible to measure them separately Internal dominant face: what is the default to be used when it is impossible to determine whether 50% or more of a surface is glazed (e.g. no sections available)? IPMS 1: the centre-line of the wall
between adjacent buildings should also be used (if not, walls are calculated as a surface in both of adjacent buildings). Vertical section: definition is not clear.

9. RISM - Dato' Sr Lau Wai Seang, Malaysia; *The above definition provide explanation on the different term in the measurement standard. The language used in English would able to improve the understanding.*

10. SAPOA - Greg Pietersen, South Africa; *I am assuming that ‘unallocated parking’ includes fire, loading, visitor and handicapped?*

**Response Summary:** There were 10 responses to this question and the SSC noted that some respondees felt that the definitions of Internal Dominant Face and Vertical Section required further clarification.

**SSC Rationale:** The SSC considered the responses received and revised the definition of Internal Dominant Face to provide further clarification. The SSC also retitled ‘Vertical Section’ as Internal Dominant Face Wall Portion and revised the definition to make it more comprehensible for end users.
Page 7. 1.2 Aim of the Standards

Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK; *The aim does not include using the standard for determining lettable areas.*

2. CAXTONS - Charles Oliver, UK; *Agreed.*

3. CLGE - Maurice Barbieri, Europe; *The standard applies to horizontal floor space (plan area) and not to volumes. The aims should be amended to make this clear, for instance, by the insertion of the above sentence. Otherwise, we agree with the aims but feel that IPMS-Residential fails to meet the key stated aim of providing “consistent measurement of property”.*

4. ESURV - Chris Ellis, UK; *Appropriate and desirable aim.*

5. KNIGHT FRANK LLP – Andrew Gooding, UK; *We have some concerns that in the mind of consumers, the introduction of the “IPMS” standard implies complete codification of residential property areas, when in fact key market differences, such the areas included under restricted height areas, need to be disclosed but are not in fact codified. This could give rise to concerns as to the true level of transparency achievable by the standards.*

6. MOHAMMED ALI - Mohammed Ali, UK; *The main aim of the standards is very important and well addressed. With the explosion of social media and many residential transactions taking place across the globe, consistency in measurement is very important to allow for many factors with one being comparison.*

7. NEERAJ BANSAL - Neeraj Bansal, India; *The aim is elaborated very well.*

8. RISM - Dato' Sr Lau Wai Seang, Malaysia; *The aim of the standard which is used for benchmarking purposes for the property appraised would able to lead to standardization in the world.*
**Response Summary:** There were 8 responses to this question and the majority of respondees were in agreement with the aim of the standards.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
Page 7. 1.3 Use of the Standards

Consultation Responses:

1. API - Kevin Thompson, Australia; An example of how interfacing might work would be handy, as it is mentioned in section 1.3.

2. CAXTONS - Charles Oliver, UK; Agreed.

3. CLGE - Maurice Barbieri, Europe;
   1. The consultation document does not regulate the case when there is a need to determine floor areas in the building which is under construction. We think it is important to agree on the stage of construction when it is already possible to measure and calculate the said areas. If the Standard is intended to apply only to the completed construction buildings, this should be indicated in this section.
   2. It is a typical case in many countries when a part of residential building is used for different purpose (e.g. the first floor of residential apartment building is occupied by different small shops, cafés, etc.). It is not clear in the consultation document how this situation should be dealt with. Would it be necessary to prepare drawings, spreadsheet for entire building premises or only for its residential part, etc. If the Standard is intended to apply to the buildings exceptionally used for residential purpose, it should be indicated in this section.

4. ENGELUX - Mario Junior, Brazil; There are 5 standards (IPMS 1, 2, 3A, 3B, 3C) - there is a risk that in each territory two or three of those will be used, and the rest will be ignored. In this case, global standardization would be compromised, derailing the effort. Perhaps a single standard, divided into several components (for common, private, structural areas, etc.) would be more appropriate.

5. ESURV - Chris Ellis, UK; The proposed use is acceptable.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil; There are 5 standards (IPMS 1, 2, 3A, 3B, 3C) - there is a risk that in each territory two or three of those will be used, and the rest will be ignored. In this case, global standardization would be compromised, derailing the effort. Perhaps a single standard, divided into several components (for common, private, structural areas, etc.) would be more appropriate.
7. MOHAMMED ALI - Mohammed Ali, UK; *The standards are good.*

8. NEERAJ BANSAL - Neeraj Bansal, India; *The standards may be used for multiple applications, thought definition captures the stakeholders well to give a comprehensive usage of standards.*

9. RISM - Dato' Sr Lau Wai Seang, Malaysia; *The standard which is used to allow the communication among the user, service provider/appraisal during measurement.*

10. TARJAB - Janaína Jardim de Almeida, Brazil; *There are 5 standards (IPMS 1, 2, 3A, 3B, 3C) - there is a risk that in each territory two or three of those will be used, and the rest will be ignored. In this case, global standardization would be compromised, derailing the effort. Perhaps a single standard, divided into several components (for common, private, structural areas, etc.) would be more appropriate.*

**Response Summary:** There were 10 responses to this question and a range of different opinions. On the whole the respondees agreed with the use of the standards and commented that varying IPMS standards would be used in different markets.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
2.1 General Principles of Measurement and Calculation

Consultation Responses:

1. CAXTONS - Charles Oliver, UK; Agreed, so principle 1 rules out walls between dwellings and measuring to the centre of a wall. I would not state the method or tolerance.

2. CLGE - Maurice Barbieri, Europe; Ok.

3. ESURV - Chris Ellis, UK; There are no particular issues with this but in practice the method of measurement, the tolerance and which IPMS has been used will not be stated. The date of the measurement will be the date of the report.

4. KNIGHT FRANK AUSTRALIA - David Way, Australia; 2.1 Point 1 obviously difficult for an apartment complex to be capable of physically measuring internal wall widths to meet IPMS1 and IPMS3. Perhaps clarify this statement because at the early stage of the paper I had thought the idea was that the area definitions were physically capable of being measured. In reality “best endeavours” would appear to prevail to meet IPMS1 and 3. And even 2 to some degree for mid points on shared walls.

5. KNIGHT FRANK LLP – Andrew Gooding, UK; We do not see how the measurement to the centre line of a shared wall can fulfil these principles.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil; Ok.

7. MOHAMMED ALI - Mohammed Ali, UK; The general principles of measurement are fine.

8. NEERAJ BANSAL - Neeraj Bansal, India; Principles towards Measurement and their Calculation is defined in a proper way.

9. RISM - Dato' Sr Lau Wai Seang, Malaysia; This approach would allowed the user to have theoretical understanding on the measurement practice.
10. TARJAB - Janaína Jardim de Almeida, Brazil; Ok.

**Response Summary:** There were 10 responses to this question and the majority of respondees agreed with the ‘General Principles of Measurement and Calculation’.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
Page 8. 2.2.1 General

Consultation Responses:

1. BRITISH ARABIAN - Richard Sweetman, Dubai; I note that paragraph 2.2 Best Measurement Practice (reproduced below) refers to the methodology of measurement, and this paragraph seems to suggest that it is acceptable to measure from plans alone. I believe that this is a practice that should be discouraged where possible and that physical valuation of the property by a skilled and qualified professional using a tape or laser is always the preferred method of determining the area rather than a desk-top estimate open to abuse as mentioned above. I believe it would be appropriate to make this explicit within the new standards. There are of course going to be exceptions where this is not practical however they should be caveated as a departure from best practice, and the reasons identified.

2. CAXTONS -Charles Oliver, UK; You seem to be aiming this at architects. As a valuation surveyor I would not use CAD, my measurements a written with a pencil on a sketch plan.

3. CLGE - Maurice Barbieri, Europe; Item 2.2.1. paragraph 2 states that “The service provider must report how the Floor area has been established, for example CAD drawings, other drawings or by laser or type measurement”. It means that the floor area can be established not only by physical measurement but it also can be determined on the basis of different (CAD and other) drawings (e.g. building design documents?). We think this contradicts to the aim of the standards (item 1.2): “the aim of IPMS is to provide a consistent measurement”.

4. ESURV - Chris Ellis, UK; Valuers will not report how floor area has been established other than in their site notes and only then when the measurement has been off drawings. Floor areas will be calculated on a floor by floor basis but will be reported as a single total figure only. In our work there is no need or client demand for more than this.

5. KIRKBY DIAMOND - Jean Howe, UK; As the majority of residential properties are still two storey houses, the service provider must “report the floor area established on a floor by floor basis”. I would
consider it appropriate to quote an overall Gross Internal Area instead of that proposed in 2.2.1.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; In our view, the level of sophistication required to support measurement should be determined by the purpose for which the measurement is being undertaken which will vary widely.

7. LUCIANO WERTHEIM - Luciano Wertheim, Brazil; I understand that this could be simplified, for example it could consider only measurements with walls.

8. MBIGUCCI - Janaina Jardim de Almeida, Brazil; Ok.

9. NEERAJ BANSAL - Neeraj Bansal, India; It gives a fair idea on how the floor area has been established.

10. RISM - Dato' Sr Lau Wai Seang, Malaysia; This standard is showing consistency on how to conduct the measurement, way to prepare the report using the measurement standard.

11. TARJAB - Janaína Jardim de Almeida, Brazil; Ok.

Response Summary: There were 11 responses to this question and a range of different opinions.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 8. 2.2.2 Unit of Measurement

Consultation Responses:

1. CAXTONS - Charles Oliver, UK; *Insist on metric, then everyone will be talking the same language.*

2. CLGE - Maurice Barbieri, Europe; *Ok.*

3. ESURV - Chris Ellis, UK; *Acceptable.*

4. MBIGUCCI - Janaina Jardim de Almeida, Brazil; *Ok.*

5. MOHAMMED ALI - Mohammed Ali, UK; *Stating the conversion factor is important and a good idea.*

6. RISM - Dato' Sr Lau Wai Seang, Malaysia; *The unit of measurement is converted based on the conversion table in each country.*

7. TARJAB - Janaína Jardim de Almeida, Brazil; *Ok.*

**Response Summary:** There were 7 responses to this question.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
Page 8. 2.2.3 Tolerance

Consultation Responses:

1. API - Kevin Thompson, Australia; *Measurement tolerance* – the measurement of a building by a property valuer vs a surveyor may lead to a differing area, however they use the same tolerance – eg to the millimetre. The issue here is that a surveyor is a professional trained in the accurate measurement of an object, whereas a valuer is a professional trained in the accurate assessment of a dwelling, with measurement required to perform that task, but perhaps not to the same degree of accuracy. Therefore I consider that there needs to be an acknowledgment that even when using the same IPMS, a quoted area may still differ depending on the qualification of the measurer and the type of measuring instrument employed.

2. CAXTONS -Charles Oliver, UK; *No, there is no need to specify tolerance. Tolerance is implied by the measurement stated,* so 1.23m is to the nearest centimetre, and 4.5 sq m is to the nearest 0.1 sq m.

3. C K WONG - C K Wong, Hong Kong ; *Guidance on the range of tolerance should be provided.*

4. CLGE - Maurice Barbieri, Europe; *Ok.*

5. ESURV - Chris Ellis, UK; *The measurement tolerance will not be stated.*

6. KIRKBY DIAMOND - Jean Howe, UK; *The RICS should clarify the accepted range of tolerances for laser measuring equipment and tape measuring equipment.*

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil ; *Ok.*

8. MOHAMMED ALI - Mohammed Ali, UK; *A possible table showing tolerance levels should be set depending on the scope of the work if possible.*

9. NEERAJ BANSAL - Neeraj Bansal, India; *It would be helpful if the Tolerance range is defined.*
10. PRIVATE RESPONSE - Anonymous, MENA; *The concept and use of the terms Tolerance and Accuracy generated strong views within the RICS Working Party Group for IPMS Office. Can consideration be given to more detailed guidance on this topic?*

11. RISM - Dato' Sr Lau Wai Seang, Malaysia; *The measurement standard guide the user on the step before/after carry out the inspection.*

12. SAPOA - Greg Pietersen, South Africa; *We have had long debates on this; we feel that our Method defines how to measure and does not define accuracy. We only suggest that in a LEASE the final area is rounded to the nearest full square meter.*

13. TARJAB - Janaína Jardim de Almeida, Brazil; *Ok.*

**Response Summary:** There were 13 responses to the question on measurement tolerance and some respondees requested further guidance on this matter.

**SSC Rationale:** The SSC considered the responses received and have revised the section on tolerances within the Exposure Draft to provide further clarification.
Page 8. 2.2.4 Measurement Reporting

Consultation Responses:

1. CAXTONS - Charles Oliver, UK; You must be joking! If I am provided with a floor plan by the client, or I obtain one from the local council planning department, or from HM Land Registry, then I will include it. I will not draw a plan of a building that I am valuing and I do not have time to provide measurements of each component. Typical reporting is: Ground floor- Lounge, dining room and kitchen: 50.2 sq m (540 sq ft) First floor-Two double bedrooms, one single bedroom and bathroom: 48.7 sq m (524 sq ft). Measured to Gross Internal Area.

2. CLGE - Maurice Barbieri, Europe; Ok.

3. ESURV - Chris Ellis, UK; This is impractical for our purposes and clients do not require it. No cross-referencing will be made.

4. KNIGHT FRANK LLP – Andrew Gooding, UK; We do not consider that a tolerance should need to be specified.

5. MBIGUCCI - Janaina Jardim de Almeida, Brazil; Ok.

6. MOHAMMED ALI - Mohammed Ali, UK; It is a good idea to have colour coded diagrams.

7. RISM - Dato' Sr Lau Wai Seang, Malaysia; The draft plan prepare during the inspection should be indicate with colour in order for the third user to design using the relevant drawing software using the computer.

8. TARJAB - Janaína Jardim de Almeida, Brazil; Ok.

Response Summary: There were 8 responses to the question on measurement reporting.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 9. 2.3 Limited Use Areas

Consultation Responses:

1. API - Kevin Thompson, Australia: Example 1 – this scenario does not clarify the situation where the wall is not vertical. There will be a difference in the floor area and the actual useable space if measured to the dominant face, but the definition of dominant face only includes “vertical” not sloping.

2. CAXTONS -Charles Oliver, UK: RICS code of measurement takes account of space with ceiling height above 1.5m, so with sloping ceilings in roof spaces the part around the edge below this height is ignored. However, the space with limited height could be stated separately as long as it is possible to measure it.

3. C K WONG - C K Wong, Hong Kong: The floor area of the residential unit appears to be “inflated” as IPMS 3 (3A, 3B or 3C) includes attics, cellar, terrace, parking area; some of which are of ancillary nature or of limited use ie. limited height, above/below ground, limited natural light etc despite the fact that they need to be separately stated and identified. In Hong Kong, the main accommodation including the living/dining area, bedrooms, kitchen and bathrooms are included in the SA, items that are considered as ancillary such as roof, terrace, garden and parking space are excluded from the SA and are measured and stated separately. The Hong Kong Government has standardised the definition of SA since 2008 with a view to promoting transparency and enhancing clarity of information in the sales description of residential properties. The definition also tallies with the Code of Measuring Practice and Supplement of HKIS.

4. CLGE - Maurice Barbieri, Europe: A range of limitations on use are alluded to, but the document makes no effort to deal with these matters. These matters are critical to the aim of allowing “the data to be used with confidence for property financing” and dealing with inconsistencies in measurement practice “between countries and sometimes within the same country”. Unless this matter is dealt with in detail in IPMS-Residential, the standard will be seriously deficient and of limited use. Detailed comment is made on this matter at the appropriate point in the response form.
5. ESURV - Chris Ellis, UK: Our clients do not require the level of detail IPMS requires to be recorded in this regard. Rooms with sloping ceilings will be measured at 1.5 metres above floor level unless individual clients want them measured differently. Otherwise no statement will be made about practical or legal restrictions on use of individual parts of the floor area.

6. KIRKBY DIAMOND - Jean Howe, UK: Example 2 - Areas with Limited Height The document should clarify for UK users of the IPMS whether or not the 1.5 metre height limit that is generally in use for Net Internal Area for offices, is appropriate in residential. Example 3 - Limited Use Areas. What is the definition of “limited natural light”. Is this a room with no windows? Is this a room more than 3 metres from a window or source of light?

7. KNIGHT FRANK LLP – Andrew Gooding, UK; By allowing service providers to disclose / state their own figures for height restricted areas, this would result in a retrograde step in the UK, where this aspect is to a large degree already standardised. Where this is the case, it may be desirable for existing codified national practices to be incorporated under IPMS, in order to prevent existing standardisation from being undermined.

8. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

9. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: As stated earlier we advise not to use dominant face for residential property so example 1 is not an issue then. We advise to exclude areas with limited height from the definition of IPMS 3 (C). Then also that example is of less importance.

10. RISM - Dato’ Sr Lau Wai Seang, Malaysia: The report should have clear statement on the measurement used such as internal or external measurement with the limitation, i.e. Height, natural light and above or below the ground. The areas are not necessary available for legal occupation or use. The limitation should be stated separately.

11. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.
Response Summary: There were 11 responses on Limited Use Area and some of the responses required further clarification.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 9. 2.4 Interface Adjustment

Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Noted, but Finished Surface would be better than Dominant Face.

2. CLGE - Maurice Barbieri, Europe: There are serious deficiencies in the concept of Internal Dominant Face. This matter will be referred to again, in detail, at the appropriate point in the response form.

3. ESURV - Chris Ellis, UK: Not relevant to our work.

4. KNIGHT FRANK LLP – Andrew Gooding, UK; We have commented above on our concerns in this respect.

5. MBIGUCCI - Janaina Jardim de Almeida, Brazil: In this market we use the external face, however I believe that it would be more appropriate for the global standard to be based on the internal wall surface.

6. NEERAJ BANSAL - Neeraj Bansal, India: This would be important for market like India where multiple rules are applied for measurement. To maximize the benefit, separate sheets can be developed capturing the Floor area variation and the methodology adopted for measurement.

7. RISM - Dato' Sr Lau Wai Seang, Malaysia: The interface adjustment shows the measurement methodology in each country. Although some user is measuring from internal/external wall, this has show that the measurement are clearly carry out/deliver based on the instruction.

8. TARJAB - Janaína Jardim de Almeida, Brazil: In this market we use the external face, however I believe that it would be more appropriate for the global standard to be based on the internal wall surface.

Response Summary: There were 8 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 10. Part 3 IPMS Residential Components

Consultation Responses:

1. AEV - María Victoria Pavón, Spain: Measurement practice in Spain does not take into account vertical elements of less than 0.01 m² in the calculation of floor area. The proposal in the document only excludes defined Vertical penetrations occupying 0.25 m², which seems excessive, also for architectural reasons of use of floor space.

2. ALEXANDER SYMONDS - Noel Gehren, UK: States that SSC has adopted Internal Dominant Face for IPMS2 and IPMS3 but both of these also use Finished Surface for internal walls – needs to be consistent.

3. CAXTONS - Charles Oliver, UK: Useful, as long as we are not expected to measure each component separately. I doubt if any surveyor will have time to measure 11 different components or will even bother if they add nothing to value, for example components A, 81, 82, 83, C and E. Component 82 needs to be divided into walls between dwellings (excluded from IPMS 38 and IPMS 3C), and walls that are within a dwelling (included in IPMS 38 and IPMS 3C). IPMS 3C also excludes component 83.

4. CLGE - Maurice Barbieri, Europe: The series of IPMS documents, being prepared (IPMS-Office, IPMS-Resident, etc.), must be consistent between each other. Concepts and definitions regarding components, which appear in one document should also apply to the same type of components in other documents in the series. Any improvements or amendments which have been made in IPMS-Residential, should be retrospectively applied to the same components and concepts in IPMS-Office. This should be done as soon as possible so that the required changes to IPMS-Office can be made before this document is fully promulgated and established. In the table of Residential Component Areas (Page 10), component area G should be split into two separate component areas – Component G1 – Fully Usable Living Space – The area available for exclusive use by residential occupiers, which complies with minimum height and area requirements and is not subject to any restrictions regarding natural lighting, ventilation, underground location or noxious pollutants which might affect its
compliance with local or national legislation or rules on fitness for habitation or taxation. Component G2 – Restricted Use Living Space – The area available for exclusive use by residential occupiers which, although usable for certain purposes, is restricted in its use because of inadequate height, area, lack of natural lighting and ventilation, underground location or other matters under local or national rules or legislation, which might restrict its use and lessen its value.

Component B3 makes no distinction between different categories of internal non-structural walls that may vary in their permanency. For instance, internal walls may be non-structural, but permanent, for legal reasons (joint ownership, party walls, restrictive covenants, etc.), for functional reasons (separating two areas of different use), or because the wall may be owned by none of the adjoining occupiers (separate ownership by a building management company). Walls which fall fully within the ownership of a particular occupier, and where no legal or structural reason exists which could restrict their removal, are potentially Living Space. This reality should be expressed in IPMS-Residential. The lack of this concept cause problems in defining elements under IPMS 3 and will be discussed under that point. For the above reason, there is a strong argument for splitting B3 into two separate components: B3A – Internal non-structural walls which are permanent, for reasons of different use of space on either side, or for legal reasons. B3B - Internal non-structural walls which it is possible to remove and incorporate into adjoining living space.

Measurements of mezzanines, preparation of drawings, description of areas in spreadsheet is not covered in the Consultation document. These questions will come 2 Mezzanine is a quite specific part of the building, which is not considered to be a separate floor, i.e. it is an intermediate floor between main floors of a building (it is installed in a certain height above the floor). Therefore, it cannot be displayed in a main floor plan. The question arises whether additional floor plan has to be prepared for mezzanine, or not. We also think that the Standard should define: a) a minimum height of the mezzanine for area calculation; b) if mezzanine area should be distinguished in spreadsheet.

5. ENGELUX - Mario Junior, Brazil: In this market we use the external face, however I believe that it would be more appropriate for the global standard to be based on the internal wall surface.
6. ESURV - Chris Ellis, UK: Not relevant to our work.

7. GIF - Dr. Ira Hörndler, Germany: Component Area D + E: Delete the word “exclusive” because the definition of living room (component Area G) includes exclusive Hygiene Areas and exclusive circulation areas.

8. KIRKBY DIAMOND - Jean Howe, UK: I do not really see the need for identifying Component Area D specifically in relation to the measurement of the Gross Internal Area of a dwelling. Please clarify why specific measurements of hygiene areas is considered appropriate? It seems odd that Component H are all balconies should be included, but that privately enclosed ground floor patios are to be excluded. Having to measure around every window opening that is greater than 50% of the height of the wall, will add significantly to inspection times. I personally do not see the benefit of measuring those areas in accordance with Diagram 8 (the internal dominant face). Otherwise, the proposal seems acceptable.

9. KNIGHT FRANK LLP – Andrew Gooding, UK; No specific comments.

10. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

11. MOHAMMED ALI - Mohammed Ali, UK: The colour coding for the residential components is very useful and good.


13. PRIVATE RESPONSE - Anonymous, MENA: I prefer the introduction of Component Areas as a separate section of IPMS Residential versus there introduction in IPMS Office as part of IPMS 2. It will be helpful to have a common set of component areas across all IPMS, even if they are not all used, ie. B1 & B3 should have been included in IPMS Office. On this point, IPMS Office Page 17 Diagram 4 shows the non-structural wall separating C and D allocated to C. Could it not be allocated to D? Why was C chosen? Alternatively, it could have been allocated on a 50/50 basis. This is perhaps a minor point but one that could introduce inconsistency if professionals allocate these areas to different components. Subject matter experts have not been able to answer this question. The use of B3 would allow the non-structural
internal walls to be stated separately thus removing this potential problem. Component Area B3 Example needs reconsidering, if these are non-structural, then they are also unlikely to be permanent. Internal areas in offices and residential are commonly refigured by removing plaster board walls and are not permanent. Component Area B1 & B2 need clearer colour separation or perhaps they can use the same colour but B1 can be hatched (to differentiate it from IPMS Office Component Area B which is internal structural elements and should be renamed B2). Further guidance may be required on the allocation of airing cupboards (part technical and part storage?), water tank cupboards, balconies on which air-conditioning units are exclusively situated. Should these be allocated to Component Area C or H? Further guidance may be required on the allocation of attics, cellars and basements between Component Area G & H. For example, if an occupier has exclusive use of a basement and uses this for storage but it could be used as a games room/study, is this living space (g) or storage (H)? Further guidance may be required on the allocation of car parking. For example, internal car parking is included within Component Area H. Presumably this could refer to basement car parking or an integral garage but not a detached garage in a separate building/block or surfaced car parking which would be external. However, it should be noted that some Dubai developers include external surfaced car parking if it is also shaded/covered (ie. a carport) in the sellable area. IPMS Office Component Area H is hatched white, for consistency IPMS Residential should use the same (not hatched yellow). There is the potential for confusion as the sum of component areas in IPMS Residential equal IPMS 1 whereas in IPMS Office they equal IPMS 2. Once Component Areas are introduced as a separate section of all IPMS, they can be applied to both IPMS 1 & 2 appropriately across all asset classes. Delete the sentence under the heading. This is out of context and is stated at Page 16 4.1.2 Measurement Practice where it is relevant. Move the second paragraph on Page 11 to Page 8 Part 2 2.2.1 where it is more relevant. Move the comment about Limited Use Areas to Page 9 2.3 to replace the following wording which I find less categorical “Such areas and their limitations are to be identified, measured and stated separately within IPMS reported areas.

14. RICS BENELUX - Jeroen Govers, Belgium: Area A to be defined if stairs should be measured for 100% of their projected surface on every
floor. Area B1: what if adjacent buildings (centre line of walls is not mentioned)? Area C / D / E: it is important to separate shared and exclusive use (exclusive use is part of the legally sold surface, shared use is not). Area H: are ground floor terraces taken into account?

15. RICS GERMANY - Rüdiger Hornung, Germany: Component Area C + D + E: Delete the word “exclusive”.

16. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: We would appreciate additional IPMS excluding internal walls. How to declare internal parking space in residential buildings?

17. RISM - Dato' Sr Lau Wai Seang, Malaysia: The code of colour can be downloaded from the internet. This is a symbol of each area of the drawing for the building.

18. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.

19. ZIA - Sabine George, Germany: Component Area D + E: Delete the word “exclusive” because the definition of living room (component Area G) includes exclusive Hygiene Areas and exclusive circulation areas.

Response Summary: There were 19 responses to this question and a range of different opinions.

SSC Rationale: The SSC considered the responses received and have provided further clarification within the Exposure Draft.
Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: The room opposite C coloured yellow is probably not a circulation area. There are no structural columns shown – these do occur on residential buildings and need to be dealt with. A couple of windows are included as part of B1 but B1 should extend to Internal Dominant Face.

2. CAXTONS - Charles Oliver, UK: Good, it explains the components.

3. CLGE - Maurice Barbieri, Europe: There are a number of minor errors and anomalies in this diagram: At the bottom of the drawing, a small extension of internal wall projects into external space between the two balconies. The external component is colour coded as Component Area B2. It should be coded as Component Area B1. It is shown correctly in other diagrams in the document. In some cases the areas under door thresholds are shown as part of the adjoining internal wall component while in other cases they are not. This is inconsistent. A consistent rule should be decided and applied. The application of the Internal Dominant Face Rule cannot be understood from the plan, in the absence of internal elevations. For instance, Living Space Area extends into door opens leading onto the balconies at the top of the diagram, but not, in other cases. In general the scale of the diagrams makes it difficult to interpret clearly the status of certain components. This is a more critical problem in later diagrams.

4. DUBAI LAND - Mohamad Kodhr Al-Dah, Dubai: Diag 1, Page 12: This only caters for normal floors. Parking, external annexes, basements and stores are not covered.

5. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS.

6. GIF - Dr. Ira Hörndler, Germany: Change the colour of the Bathrooms into light blue (living area).
7. KNIGHT FRANK LLP – Andrew Gooding, UK; No specific comments, other than as commented above in relation to the treatment of internal walls and the term “Internal Dominant Face”.

8. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

9. MOHAMMED ALI - Mohammed Ali, UK: A clear diagram to understand, highlighting the different areas.


11. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: It appears certain vertical penetrations with a surface of less than 0.25 m² are not disregarded as stated in the definition. The colours used in the diagram are not very distinctive.

12. PLOWMAN CRAVEN - Robert Ash, UK: If Diagram 1 is the same as Diagram 5, there is currently some inconsistency between the two in respect of two window ‘sills’ (Unit 1 and Unit 4) and the location of the Internal Dominant Face. We understand that this IDF concept is intended to apply to both IPMS 1 and IPMS 2 for residential properties without appreciating why this should be so for IPMS 1. There are several doorway thresholds that we think should be coloured light pink (B3) for consistency. Need to reconcile with Diagram 7, page 22 also.

13. RICS GERMANY - Rüdiger Hornung, Germany: Definition Circulation Area vs. Living Space / sanitary vs. living space? Change the colour of the Bathrooms into light blue (living area).

14. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: None – clear and logic.

15. RISM - Dato' Sr Lau Wai Seang, Malaysia: The diagram is unique as all the component in the apartment is identified from component area A to H. For example, component are A, is referring to the technical equipment and common facilities and this is clearly show in the floor plan when refer again to the diagram.

16. TARJAB - Janáína Jardim de Almeida, Brazil: Ok.
17. ZIA - Sabine George, Germany: *Change the colour of the Bathrooms into light blue (living area).*

**Response Summary:** There were 17 responses to this question and a the majority of responses felt that the Component Area Diagrams were clear, though some respondees felt further clarification was needed.

**SSC Rationale:** The SSC considered the responses received and have provided further clarification within the Exposure Draft and have incorporated further Floor Plans to provide additional clarification across the different types of residential buildings (ie Detached, semi-detached and attached houses and apartments).
Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: Different areas at Level 0 used for exclusive use should be identified as components eg carpark, yard, patio. The wall adjacent to the stairs shown white should be identified.

2. CAXTONS - Charles Oliver, UK: Good, but could be improved by adding an integral garage coloured light yellow hatched as well as a balcony.

3. CLGE - Maurice Barbieri, Europe: The status of the wall, adjoining the staircase at the top of each of the plans is difficult to interpret. It is colour coded as B2 - Internal Structural Element. Its internal nature is not clear from the diagram. We assume that it is a party wall between the dwelling shown and an adjoining dwelling which hasn’t been indicated, but it is unclear whether the full thickness of the party wall is shown or just half the thickness. These cause problems when dealing with IPMS3 later. A small area of the adjoining property should be indicated to clarify this matter. Indications of ground level components (car port, patio, etc.) are shown on the Level 1 (first floor) diagram, but not on the Level 2 diagram. They would also be visible at this level and should be shown.

4. DUBAI LAND - Mohamad Kodhr Al-Dah, Dubai: Diag 2, Page 13: Perhaps call this "residential dwellings/villas" to cater for an international audience. Also, in Dubai the external parking is counted as an area if it is built from a permanent structure (e.g. concrete) with a proper roof.

5. ESURV - Chris Ellis, UK: Ditto.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; No specific comments, other than as commented above in relation to the treatment of internal walls and the term “Internal Dominant Face”.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

8. MOHAMMED ALI - Mohammed Ali, UK: Good clear diagrams.

10. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: It is unclear why this dwelling has an amenities area. This component seems to be irrelevant for this type of building.

11. PLOWMAN CRAVEN - Robert Ash, UK: Should the uncoloured strip between components A and G be labelled ‘Void’? The yellow hatched area of the external terraces should include the perimeter walls otherwise not consistent with IPMS 1 – Office and the sum of all parts would therefore not equal the IPMS 1 total.

12. PRIVATE RESPONSE - Anonymous, MENA: This diagram is confusing as the colouring does not appear to be consistent across the floors, for example around the vertical penetration which is not the staircase (it appears to be Area B2 on Level 0 and 1 and part Area B2 and part Area B3 on Level 2—is this correct?). Also the white areas adjacent to the staircase and the area which I assume is a generally accessible rooftop terrace (Area H on Level 2) need to be explained. I assume the former is an open light well/upper level void of an atrium and the latter a balustrade which does not have a continuous external perimeter capable of measurement (rather than a solid low height exterior wall of brick or glass which does).

13. RICS PORTUGAL - Group Response, Portugal: A basement with parking area should be included.

14. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: None – clear and logic.

15. SAPOA - Greg Pietersen, South Africa: I don’t understand the ‘white’ area (wall?) adjacent the stair on Levels 1 & 2.

16. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.

Response Summary: There were 16 responses to this question.

SSC Rationale: The SSC considered the responses received and have provided further clarification within the Exposure Draft and have
incorporated further Floor Plans to provide additional clarification across the different types of residential buildings (i.e., Detached, semi-detached and attached houses and apartments.
Page 14. Sample Spreadsheet for Component Areas

Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Too onerous.

2. CLGE - Maurice Barbieri, Europe: This spreadsheet should be amended to match the component definition changes recommended with regard to G being split into G1 and G2 and with regard to component B2 being split into B2A and B2B.

3. ENGELUX - Mario Junior, Brazil: As IPMS 2 and 3 exist, this worksheet should indicate them as well.

4. ESURV - Chris Ellis, UK: Not relevant to our work.

5. GIF - Dr. Ira Hörndler, Germany: 1. If bathrooms and other hygienic areas and circulation area with exclusive use are not deleted from Component D + E and included in Component G (living area), they should at least be divided in areas with exclusive use and shared areas in the sample spreadsheet 2. There are no areas with limited use in component B2 and B3 – this should be adjusted in the sample spreadsheet.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

7. MOHAMMED ALI - Mohammed Ali, UK: A good method to use, too total up, component areas on each floor.


9. PLOWMAN CRAVEN - Robert Ash, UK: Sample spreadsheet for component areas is confusing. As Limited Use Areas are included within the IPMS reported area, then reading vertically it looks like they should be added to the component area to equal the total area. Should it not be just component and Limited Use that are tabled without the total?
10. PRIVATE RESPONSE - Anonymous, MENA: Remove references to IPMS
   1. For reasons see comments above (Page 10. Part 3 IPMS Residential
      Components).

11. RICS BENELUX - Jeroen Govers, Belgium: The spreadsheet should
    make a difference between private and shared surfaces.

12. RICS GERMANY - Rüdiger Hornung, Germany: 1. If bathrooms and
    there like and circulation area with exclusive use are not deleted from
    Component D + E and included in Component G (living area), they
    should at least be divided in areas with exclusive use and shared areas
    in the sample spreadsheet 2. There are no areas with limited use in
    component B1, B2 and B3 – this should be adjusted in the sample
    spreadsheet.

13. TARJAB - Janaina Jardim de Almeida, Brazil: As IPMS 2 and 3 exist,
    this worksheet should indicate them as well.

14. ZIA - Sabine George, Germany: 1. If bathrooms and other hygienic
    areas and circulation area with exclusive use are not deleted from
    Component D + E and included in Component G (living area), they
    should at least be divided in areas with exclusive use and shared areas
    in the sample spreadsheet. 2. There are no areas with limited use in
    component B2 and B3 – this should be adjusted in the sample
    spreadsheet.

Response Summary: There were 14 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered
these comments.
Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Good, except should be IPMS 1 (Gross external), IPMS 2 (Gross internal), IPMS 3A (Gross internal excluding common space), IPMS 3B (Net internal), IPMS 3C (Occupier). However as 3A is useless it should be deleted leaving 3B and 3C renamed 3A and 3B.

2. CLGE - Maurice Barbieri, Europe: IPMS 3 needs much more careful definition. This will be discussed in greater detail when dealing with IPMS 3 later in the response form.

3. DUBAI LAND - Mohamad Kodhr Al-Dah, Dubai: Page 16: IPMS1 Exclusions: Perhaps consider distinguishing between covered and uncovered parking?

4. ESURV - Chris Ellis, UK: Acceptable.

5. GIF - Dr. Ira Hörndler, Germany: Normally ground plans are available providing all necessary measurements also of basements. There is no need to open up the possibility for any other measurement practice.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

8. MOHAMMED ALI - Mohammed Ali, UK: The standards are clear and easy to understand.


10. RICS GERMANY - Rüdiger Hornung, Germany: Normally we have the ground plans, which provide all necessary measurements, also of basements. There is no need to open up the possibility for any other measurement practice.

11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: Is ok.
12. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.

13. ZIA - Sabine George, Germany: *Normally ground plans are available providing all necessary measurements also of basements. There is no need to open up the possibility for any other measurement practice.*

**Response Summary:** There were 13 responses to this question and the majority of respondents suggested no further revisions.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
Page 16. 4.1.1 Use

Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Agreed, but IPMS 1 is of no use except to a builder.

2. CLGE - Maurice Barbieri, Europe: OK.

3. ESURV - Chris Ellis, UK: Acceptable.

4. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

5. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


7. RICS BENELUX - Jeroen Govers, Belgium: If used for costing, terraces and balconies should be included separately.

8. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.

Response Summary: There were 8 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 16. 4.1.2 Definition

Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: EXCLUSIONS – Structural columns excluded or included.

2. API - Kevin Thompson, Australia: Measurements not included – open light wells or the upper level voids of an atrium. What about the void area of an internal stair well?

3. CAXTONS - Charles Oliver, UK: Agreed, but I doubt the benefit of measuring each component.

4. CLGE - Maurice Barbieri, Europe: Under “Measurement Practice” the statement “Areas for IPMS 1 are to be taken from drawings or on site” is problematic. All measurement used in IPMS 1 (or indeed any of the other IPMS standards) should be derived from actual physical measurements. Whether these measurements can be computed directly into areas will depend on the size and complexity of the building plan shape. Complex buildings will require the physical measurements to be computed and propagated errors to be distributed, before a drawing can be generated and area values generated. In the case of existing structures, all area values should be based on “as built” measurements, properly measured and computed, with the methodology of derivation fully described as per Section 2.1.3 of this document. Only in the case of buildings not yet constructed, or where the nature of the transaction does not require accuracy of a high level, may areas be derived from design drawings, but this must be clearly stated in the accompanying documentation.

5. ESURV - Chris Ellis, UK: As previously mentioned, balconies, covered galleries and rooftop terraces will not be measured. Otherwise the definition appears acceptable.

6. KNIGHT FRANK AUSTRALIA - David Way, Australia: 4.1.2 Exclusions. Does bullet point one need to be extended to include voids above stair wells for townhouses and loft style apartments. Diagram 3: IPMS1 Residential Dwelling Level 2 should the shading exclude the void above stairs? This then applies over the other definitions in which
stairs are described. I think the PC MoM also includes the area of the void above stairs which I don’t. It might just be me who is out of step but in talking to other valuers excluding the void seems to be common place.

7. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

8. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


10. PLOWMAN CRAVEN - Robert Ash, UK: We do not understand why there should be a need to entertain any suggestion of reporting IPMS 1 on anything but the total area contained within entire footprint of the building. We understood that the intention at the time of producing IPMS: Office Buildings, was that IPMS 1 was to be consistent across all property types, but here it is clearly not. There is no need to facilitate the subdivision of IPMS areas into component areas given that this is fundamentally the purpose of IPMS 2 – Residential. The difference between those two totals (IPMS 1 minus IMPS 2) will provide the total area taken up by the perimeter structure of the building (taking into account IDF) should this ever be required.

11. PRIVATE RESPONSE - Anonymous, MENA: The introduction of Measurement Practice (drawings or on-site) under each IPMS Standard is an improvement over IPMS Office where they were generally introduced at Part 2 Page 7 Principles of Measurement. IPMS Office should be updated accordingly. However, should “Areas” in the first sentence be replaced with measurements (measurements are taken from which areas are calculated)? Under the sub-heading Measurements included but stated separately, the word measurement should be replaced with Areas, as IPMS requires the reporting of areas not necessarily the measurements from which they are calculated. Under Measurements included but stated separately, should attics be included but stated separately (per IPMS 3) or are they excluded entirely as they do not represent a floor (in which case it may be helpful to explicitly state this). Under the third bullet point of Exclusions, it’s stated “…other ground level areas that are not
enclosed are not to be included within IPMS 1...”. IPMS Office includes the word “fully” between not and enclosed. Is this a deliberate differentiation or a typo? Where definitions and concepts are shared across IPMS, consistency needs to be maintained between the IPMS for each asset class.

12. RICS BENELUX - Jeroen Govers, Belgium: Same remark regarding terraces and balconies. Inclusions: the external area of basement levels should first of all be measured on plans if available (this is not mentioned).

13. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: All parts such as balconies and others being situated outside of the isolated building envelope shouldn’t be part of IPMS1.

14. TARJAB - Janaina Jardim de Almeida, Brazil: Ok.

Response Summary: There were 14 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: *Show external structural columns – included or excluded.*

2. C K WONG - C K Wong, Hong Kong: *The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.*

3. CLGE - Maurice Barbieri, Europe: *Ok.*

4. ESURV - Chris Ellis, UK: *The floor plan adequately clarifies the extent of measurement required for IPMS.*

5. KNIGHT FRANK LLP – Andrew Gooding, UK; *Our comments on the individual standards are covered by our comments above.*

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: *Ok.*

7. PRIVATE RESPONSE - Anonymous, MENA: *Provide a key similar to IPMS Office Page 11 Diagram 1.*

8. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: *All parts such as balconies and others being situated outside of the isolated building envelope shouldn’t be part of IPMS1.*

9. TARJAB - Janaína Jardim de Almeida, Brazil: *Ok.*

Response Summary: There were 9 responses to this question and some of the responses required further clarification.

SSC Rationale: The SSC considered the responses received and have revised the Floor Plan within the Exposure Draft to provide further clarification.
Page 18. Diagram 4: IPMS 1 – Residential Dwellings

Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: White area next to stairs – not sure what it is?

2. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided. Also, the area adjacent to the staircase that is coloured white on Level 1 and 2 (presumably is the void) is not clearly identified.

3. CLGE - Maurice Barbieri, Europe: Note previous comments relating to the status of the party wall and the depiction of ground level features on higher level plans.

4. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS.

5. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


8. PLOWMAN CRAVEN - Robert Ash, UK: This is identical to Diagram 10 so why are both needed?

9. PRIVATE RESPONSE - Anonymous, MENA: This diagram is confusing as Diagram 2 excludes the white areas adjacent to Area H on Level 2 but they are included in Diagram 4, which implies that they are external construction features capable of being measured to their outer perimeter. If this is the case, shouldn’t they be included as Component Area B1 and thus coloured on Diagram 2? See further comments above (Page 13. Diagram 2: IPMS – Residential Dwelling –
Component Areas). Provide a key similar to IPMS Office Page 11 Diagram 1.

10. RICS PORTUGAL - Group Response, Portugal: A basement with parking area should be included.

11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: All parts such as balconies and others being situated outside of the isolated building envelope shouldn’t be part of IPMS1.

12. TARJAB - Janaína Jardim de Almeida, Brazil: Ok.

Response Summary: There were 12 responses to this question and some of the responses required further clarification.

SSC Rationale: The SSC considered the responses received and have revised the Floor Plan within the Exposure Draft to provide further clarification.
Page 19. 4.2.1 Use

Consultation Responses:

1. C K WONG - C K Wong, Hong Kong: *It is unclear how IPMS 2 – Residential enables Users and Service Providers to make direct floor space comparisons between data from different market practices.*

2. CLGE - Maurice Barbieri, Europe: *Ok.*

3. ESURV - Chris Ellis, UK: *Acceptable.*

4. KNIGHT FRANK LLP – Andrew Gooding, UK; *Our comments on the individual standards are covered by our comments above.*

5. MBIGUCCI - Janaina Jardim de Almeida, Brazil: *Ok.*


7. PRIVATE RESPONSE - Anonymous, MENA: *I don’t like the use of the word “boundary”, which makes me think of a plot of land. This word can be deleted and the sentence still makes sense.*

8. RICS BENELUX - Jeroen Govers, Belgium: *If used for measuring the interior boundary, terraces should be excluded.*

9. RICS PORTUGAL - Group Response, Portugal: *It is not clearly stated what are likely uses for IPMS 2.*

10. SAPOA - Greg Pietersen, South Africa: *I don’t understand the ‘white’ area (wall?) adjacent the stair on Levels 1 & 2.*

11. TARJAB - Janaína Jardim de Almeida, Brazil: *Ok.*

Response Summary: There were 11 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 19. 4.2.2 Definition

Consultation Responses:

1. API - Kevin Thompson, Australia: *Should the void areas of an internal stair well be included?*

2. CAXTONS - Charles Oliver, UK: *Agreed, but I doubt the benefit of measuring each component.*

3. CLGE - Maurice Barbieri, Europe: *There are issues with the use of Internal Dominant Face which will be dealt with separately under that heading. Under “Inclusions: IPMS 2- Residential it is not clear what is mean by “available for direct or indirect use”. Can the meaning of this phrase be defined and expanded on?*

4. ESURV - Chris Ellis, UK: *As previously mentioned, balconies, covered galleries and rooftop terraces will not be measured. Otherwise the definition appears acceptable.*

5. KNIGHT FRANK LLP – Andrew Gooding, UK; *Our comments on the individual standards are covered by our comments above.*

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil : *Ok.*


8. PRIVATE RESPONSE - Anonymous, MENA: *For consistency with IPMS 1, under Measurement Practice reference should be made to how measurements are to be taken (from drawings or on-site). Under Measurements included but stated separately, they are to be measured to their Finished Surface compared to IPMS Office which uses the term inner face. Furthermore, the corresponding section of IPMS Residential 1 uses the term outer face, which sits more comfortably with the latter. Also see comments below about the use of Finished Surface and wall floor junction. The concept should be the same and therefore one common term should be defined and used across all IPMS. Under the third bullet point of Exclusions, it’s stated “…other ground level areas that are not enclosed are not to be included within IPMS 1…”. IPMS Office includes the word “fully”*
between not and enclosed. Is this a deliberate differentiation or a typo? Where definitions and concepts are shared across IPMS, consistency needs to be maintained between the IPMS for each asset class.

9. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: *Columns and internal porting walls shouldn’t be included in IPMS 2.*

10. TARJAB - Janaína Jardim de Almeida, Brazil: *Ok.*

**Response Summary:** There were 10 responses to this question.

**SSC Rationale:** In preparing the Exposure Draft the SSC have considered these comments.
Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Noted, could be useful for insurance costing, but not for valuation.

2. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.

3. CLGE - Maurice Barbieri, Europe: Previous comments regarding the impossibility of understanding the interpretation of the Internal Dominant Face rule, without the inclusion of elevations, apply. Note that the extent of wall projecting between the two balcony areas at the bottom of the diagram is correctly coded here, unlike in diagram 1, page 12.

4. ENGELUX - Mario Junior, Brazil: OK, although I believe IPMS-2 to be unnecessary.

5. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: OK, although I believe IPMS-2 to be unnecessary.


10. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: Columns and internal porting walls shouldn’t be included in IPMS 2.
11. TARJAB - Janaina Jardim de Almeida, Brazil: OK, although I believe IPMS-2 to be unnecessary.

Response Summary: There were 11 responses to this question and some of the responses required further clarification.

SSC Rationale: The SSC considered the responses received and have revised the Floor Plan within the Exposure Draft to provide further clarification.
Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: White area next to stairs – not sure what it is?

2. CAXTONS - Charles Oliver, UK: Noted, useful for valuing houses and bungalows.

3. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided. Also, the area adjacent to the staircase that is coloured white on Level 1 and 2 (presumably is the void) is not clearly identified.

4. CLGE - Maurice Barbieri, Europe: Note previous comments relating to the status of the party wall and the depiction of ground level features on higher level plans. It should also be noted that the use of the term “Dwelling” in this instance is ambiguous. Apartments are also dwellings. Perhaps “House” would be a better description.

5. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


9. PLOWMAN CRAVEN - Robert Ash, UK: This is identical to Diagram 12 so why are both needed?

10. RICS PORTUGAL - Group Response, Portugal: A basement with parking area should be included.
11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: *Columns and internal porting walls shouldn’t be included in IPMS 2.*

12. SAPOA - Greg Pietersen, South Africa: *I don’t understand the ‘white’ area (wall?) adjacent the stair on Levels 1 & 2.*

13. TARJAB - Janaína Jardim de Almeida, Brazil: *OK.*

**Response Summary:** There were 13 responses to this question and some of the responses required further clarification.

**SSC Rationale:** The SSC considered the responses received and have revised the Floor Plan within the Exposure Draft to provide further clarification.
Page 22. 4.2.3 Internal Dominant Face

Consultation Responses:

1. ALEXANDER SYMONDS - Noel Gehren, UK: *The definition of Dominant Face should be moved to 1.1. Definitions – If you are only dealing with IPMS3 you might not realise there is a definition for Internal Dominant Face under IPMS2.*

2. CAXTONS - Charles Oliver, UK: *Of no practical use.*

3. CLGE - Maurice Barbieri, Europe: *The definition in paragraph 1 requires considerable expansion and explanation to make the application of the IDF rule clear in all circumstances. For instance, there is no guidance given for situations where two sections of wall surface are separated by an internal wall, i.e. occurring in two separate rooms. There is no guidance given on how areas of the inner face of external walls, which are masked by the abutment of external walls should be treated. The definition of Vertical Section and its relationship to Internal Dominant Face is unclear. We take the definitions of Internal Dominant Face when read in conjunction with Vertical Section to mean that: At any point where horizontal profiles can be taken through the inner finished face of an external wall or weatherproofing component and a change in projection or recession occurs in these profiles, then the wall surface area between floor and ceiling of each such projected or recessed surface should be evaluated with regard to the surface areas above and below between each change of horizontal profile, and the component surface which has the largest surface area, relative to the others, will be taken as the plan location of the floor area to be measured and evaluated. Assuming that this is the correct interpretation of the IDF rule there are a multitude of anomalies that can occur in its application. To mention just a few: What happens if the changes of projection or recession are angled and not at right angles at either side surface, as for instance with and embrasure of chamfered bay window? What if the change of profile above the window is also sloped? What would happen if there were multiple changes of recession or projection in the portion of wall surface being evaluated? Which surface would be accepted as the dominant face? Where multiple faces occur, any one, although the largest relative to any one of the other faces, could be*
smaller than the sum of the other faces. How would Internal Dominant Face be evaluated if the adjoining portions of wall, assessed in plan, were not parallel? How could IDF deal with areas which were curved in plan, such as semi-circular room projections, apses, etc.? If wall sections are not vertical, it is impossible to apply the concept of IDF. Because of these anomalies, and many more, too numerous to mention, it is our opinion that the concept of Internal Dominant Face is fatally flawed and can only be applied in the simplest of building types, i.e. those with rectangular plan shapes and vertical, non-complex, internal wall surfaces. IPMS is intended as a universal international standard, but with the above shortcomings it would be impossible to apply unambiguously and the standard’s use as a means of making comparisons across international practice variations and across a wide range of building types would be lost. We recommend that the concept of Internal Dominant Face be abandoned and replaced by the concept of Usable Floor Area, measured immediately above skirting board level, to the inner finished face of the external structure and weatherproofing envelope of a building. This concept, linked with the definition of Fully Usable Floor Space and Restricted Use Floor Space, would provide a sound basis for the accurate comparison of the floor areas of different building types across markets, particularly in terms of valuation, which is the declared purpose of these standards. Finally, if this view is rejected and it is decided to continue with the use of IDF then the third paragraph on page 22 need to be reviewed and revised. This paragraph states “if there is no Internal Dominant Face, because no face in a Vertical Section exceed 50%, or if the Internal Dominant Face is not vertical, the measurement should be to the finished surface. This begs the question – to what place on the finished surface should the measurement be taken (see the anomalies outlined above).

4. ESURV - Chris Ellis, UK: Acceptable.

5. KNIGHT FRANK AUSTRALIA - David Way, Australia: 4.2.3 I understand the concepts you describe. I’m concerned that the first diagram doesn’t isolate the concept well enough as it is the first step in describing the next three diagrams. Perhaps the use of an elevation notation similar to a Plan of Subdivision Diagram 6 Picture 1 where you concentrate on the wall profile only via a bracket with corresponding reference which is then labelled on the next three
diagrams. IPMS3A is very close to existing Property Council RPA definition – “D- Apartments Abutting Common Services”. You had previously mentioned there was a subtle difference between the two but they look the same to me. IPMS3A is described in Diagram 7 within the context of an apartment floor and marries in with the definition on the previous page. However, the suggested implementation states “most appropriate for measuring freestanding dwellings”. I’m confused by this statement as it is clearly intended to describe areas for dwellings with common walls such as an apartment.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil : Ok.


9. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: The definition of a vertical section is unclear. However we advise not to make this definition part of the IPMS Residential Standard.

10. PRIVATE RESPONSE - Anonymous, MENA: Across all IPMS, the explanation of Internal Dominant Face should be introduced under Part 2 Principles of Measurement 2.4 Interface Adjustment and the wording should be identical, which it is not when comparing IPMS Office to IPMS Residential. Confusion may be caused by the introduction of the term Finished Surface (not defined in IPMS Office) and the requirement to measure to it, which appears to be the same concept as wall-floor junction. Consistency is needed.

11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: This definition has as consequence that measurement projects are getting much more expensive, because the necessary information cannot be directly read out from floorplans. You need verifications on site to get the information of the internal dominant face.

12. TARJAB - Janaína Jardim de Almeida, Brazil: OK.
Response Summary: There were 12 responses to this question and a further 48 responses were received on question 6 on the Internal Dominant Face.

SSC Rationale: The SSC considered the responses received and noted that the majority of responses supported the concept of Internal Dominant Face. However the SSC also noted that further clarification was required within the definitions and Floor Plans. The SSC have now revised the definition of both the IDF and Vertical Section now retitled IDF (Internal Dominant Face) Wall Portion within the Exposure Draft to make the definitions more user friendly.
Page 22. Diagram 7 – Internal Dominant Face within Unit 1 Floorplan

Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Too complicated.

2. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.

3. CLGE - Maurice Barbieri, Europe: It is unclear as to what Diagram 7 on page 22 refers. It would seem, by the context, that it is related to the following section on IPMS 3 – Residential (Occupier), in that it introduces exclusions of floor area which are only relevant in this context. Separating internal partition areas, party wall areas, or walls separating Living Space and Common space has no relevance to the general concept of IDF.

4. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS when adopting Internal Dominant Face.

5. GIF - Dr. Ira Hörndler, Germany: 7. Please choose colours with a bigger contrast to each other.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil; Ok.


9. PLOWMAN CRAVEN - Robert Ash, UK: Several points here: It is not clear what is being represented by the mauve colour infill but we assume that it is aggregate IPMS 2 for Unit 1. If so, there should there be no clear (uncoloured) areas inside the enclosing IDF? If the
coloured area is to exclude internal ‘B’ components, then there is a central structural wall that needs to be uncoloured.

10. RICS OCEANIA - Group Response, Oceania: Reference Page 22: This gives the appearance of one large unit with internal walls excluded, which is inconsistent with other IPMS2 measurements. Overall, the diagram is somewhat confusing and is not clear what is being demonstrated.

11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: This definition has as consequence, that measurement projects are getting much more expensive, because the necessary information cannot be directly read out from floorplans. You need verifications on site to get the information of the internal dominant face.

12. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

Response Summary: There were 12 responses to this question and a further 48 responses were received on question 6 on the Internal Dominant Face.

SSC Rationale: The SSC considered the responses received and noted that the majority of responses supported the concept of Internal Dominant Face. However the SSC also noted that further clarification was required within the definitions and Floor Plans. The SSC have now revised the definition of both the IDF and Vertical Section now retitled IDF (Internal Dominant Face) Wall Portion within the Exposure Draft to make the definitions more user friendly.
Consultation Responses:

1. API - Kevin Thompson, Australia: Sloping wall example?

2. CAXTONS - Charles Oliver, UK: Too complicated and time consuming to measure.

3. CLGE - Maurice Barbieri, Europe: This diagrams needs to be extensively modified and expanded to deal with the anomalies outlined above, and to provide clearer and more comprehensive guidance on the application of the IDF rule, that is, if it is decided to maintain the IDF concept.

4. ESURV - Chris Ellis, UK: The floor plan adequately clarifies the extent of measurement required for IPMS when adopting Internal Dominant Face.

5. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


8. PLOWMAN CRAVEN - Robert Ash, UK: Although this was used in IPMS: Office Buildings to illustrate IDF, perhaps something more representative of a residential property would be better here perhaps?

9. PRIVATE RESPONSE - Anonymous, MENA: Diagram refers to wall-floor junction per IPMS Office but in accordance with IPMS Residential should refer to Finished Surface? See comments above about consistency. Also, updating this diagram to illustrate Diagram 7 is advised to avoid confusion. For example, the wide window on the left hand exterior wall of Diagram 7 is presumably not full height, which is why the IDF is the wall-floor junction/Finished Surface and not the glazing. However, Diagram 8 illustrates the wide window as being full height where the IDF is the glazing.
10. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: Including or not including part of the window space according to the size of the windows is not practicable (especially for windows not face ground) and is not in accordance to Swiss practice.

11. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

Response Summary: There were 11 responses to this question and a further 48 responses were received on question 6 on the Internal Dominant Face.

SSC Rationale: The SSC considered the responses received and noted that the majority of responses supported the concept of Internal Dominant Face. However the SSC also noted that further clarification was required within the definitions and Floor Plans. The SSC have now revised the definition of both the IDF and Vertical Section now retitled IDF (Internal Dominant Face) Wall Portion within the Exposure Draft to make the definitions more user friendly.
Page 24. 4.3.1 Use

Consultation Responses:


2. CAXTONS - Charles Oliver, UK: *Agreed.*

3. CLGE - Maurice Barbieri, Europe: *Ok.*

4. ESURV - Chris Ellis, UK: *Our work will not require us to use IPMS 3.*

5. KNIGHT FRANK LLP – Andrew Gooding, UK; *Our comments on the individual standards are covered by our comments above.*

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: *Ok.*


8. RICS PORTUGAL - Group Response, Portugal: *More details about the likely uses of the standard.*

9. TARJAB - Janaína Jardim de Almeida, Brazil: *OK.*

Response Summary: There were 9 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Page 24. 4.3.2 Definition

Consultation Responses:

1. AEV - María Victoria Pavón, Spain: Conceptually, we think it is inconsistent to include all of the partition walls between the common areas and living areas to the floor space of the common areas and components, while using the centre-line in the case of partitions between occupants. Although it has already been covered in the same way in the IPMS Office Standard, we believe it would be more consistent to use the centre-line both for the walls between occupants and between the living area and common areas.


3. API - Kevin Thompson, Australia: There could be a single IPMS 3 – Residential or there would be numerous separate IPMS 3 – Residential areas within a multi occupied Building. Should “would” be “could”?

4. CAXTONS -Charles Oliver, UK: Agreed, subject to comments above.

5. C K WONG - C K Wong, Hong Kong: The remark for IPMS 3A that it may be most appropriate for measuring freestanding dwellings in single occupation is not necessary. The standard is equally appropriate for apartments or semi-detached dwellings.

6. CLGE - Maurice Barbieri, Europe: It can be argued that IPMS 3 is merely specific combinations of the Component Areas and, as such, is superfluous and could be omitted. However, if it is felt necessary to include these examples then a number of issues arise. The definition of what constitutes the “floor area available on an exclusive basis to an occupier”, needs far more detailed definition. Are internal structural walls, external walls, or walls separating separate legal ownerships (party walls), walls separating non-compatible functions, or ducts penetrating more than one area of ownership vertically, “available on an exclusive basis to an occupier”? In an apartment block they certainly are not. All of these features are of essential use to other occupiers and no exclusivity can be claimed. To say that certain floor area is “available” indicates a right, on the part of the
occupier to make use of the floor area occupied by these features and in most, if not all cases, the occupier has no such right. In apartments, the only floor area to which an occupier has “availability on an exclusive basis” is the Living Space (Component Area G, or G1 and G2 on the basis of our recommendation), and such examples of Component Area B3 (B3B as defined above) that can be removed by the occupier, if he wishes. In the case of houses, exclusivity exists, except in the case of party walls with adjoining properties, but “availability” may be constrained by planning and bye-law controls imposed by government.

7. EXPERT INVEST - Petar Andonov and Kremena Andonova, Bulgaria: IPMS 3A: The area in exclusive occupation measured to: the external face of the exterior wall the centre-line of shared walls between occupants and walls shared with Common Facilities IPMS 3B: The area in exclusive occupation measured to: the Internal Dominant Face the centre-line of shared walls between occupants and walls shared with Common Facilities.

8. GIF - Dr. Ira Hörndler, Germany: Subtitle Measurement practice, 2.paragraph: change 1.sentence, it would be better to state what kind of relation exists instead of denying a direct link.

9. KNIGHT FRANK LLP - Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

10. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


12. PLOWMAN CRAVEN - Robert Ash, UK: Is there not a contradiction of terms here? How is it possible to have the situation where “there could be a single IPMS Residential area or there would be numerous separate IPMS Residential areas within a multi-occupied building”? Para starting “The SSC has researched ……………….” is a repeat from page 4 and not needed. For IPMS 3C, we think that it is inferred that interior doors and thresholds constitute part of the internal walls but perhaps this should be stated? Under IPMS 3C, we feel that vertical risers within individual dwellings ought to be stated as excluded areas as they appear to be shown in Diag 13 (and possibly too in Diag 14?).
13. PRIVATE RESPONSE - Anonymous, MENA: Why is the definition of IPMS 3 different under IPMS Residential and IPMS Office? Aren’t the concepts and thus definitions the same? For consistency with IPMS 1, under Measurement Practice reference should be made to how measurements are to be taken (from drawings or on-site). Under Measurement Practice, the first paragraph can be deleted, it adds nothing to this section as the concepts are explained under each Standard below (in fact including this paragraph may cause confusion). However, if it remains, “interior walls” should be replaced with “internal walls”. Under Measurement Practice, the second paragraph should be moved to 4.2.3 Definition where it is more relevant. Also “would” in the context of “…or there would be numerous…” should be replaced with “could”. Under Measurement Practice, reference is made to the external face of the exterior wall. However IPMS 1 refers to the outer perimeter of external construction features. I believe the concept is the same and thus so should the terms used. IPMS 3A, 3B & 3C need to clearly stand out, the current formatting is too compact. Separate sub-headings (numbered?) should be considered. Under IPMS 3A, delete the comment that “This measurement may be most appropriate for measuring freestanding dwellings”. This seems out of context (similar comments are not made elsewhere in IPMS Residential) and it somewhat contradicts the statement above that measurements are to the centre line of shared walls, or finished surface of walls shared with common facilities, which implies buildings which are not freestanding. Under Measurements included but stated separately, reference is made to attics and cellars. Additional guidance may be required confirming when these are to be treated as floors (included but not stated separately) and when they are to be stated separately. Presumably they will be treated as floors if there is permanent internal fixed access with a solid floor surface (ie. a cellar is a floor where there is a permanent internal fixed staircase to access it but is stated separately where there is a trapdoor/ladder/external access—a similar concept could apply to attics). Under Measurements included but stated separately, reference is made to cellars, but in IPMS1 Inclusions, reference is made to basements. There should be consistency in the term used, basement is preferable (basement is more flexible in use, ie. basement car parking, storage etc.). Under Measurements included but stated separately, reference is made to parking. For
consistency, “car parking” should be used. Confirmation is required as to the type of car parking to be included. Presumably internal in exclusive occupation is included and stated separately, but what about external (ie. in a separate building/block, surfaced, surfaced and shaded etc.—see comment on Component Area H above). If included in IPMS 3 this presumably needs to be reported as an area rather than a number of spaces? This is not explicitly detailed in IPMS 3 but perhaps could be inferred from IPMS 1 & 2. However, it is stated earlier that IPMS 3 is not directly related to these standards. Under Measurements included but stated separately, the words “perimeter of” should be deleted. These add nothing to sentence and may cause confusion; it is the area that is to be stated separately, not the measurements that make up the perimeter of the space. Also, delete the word “an” or the “s” from floors in the following section “on upper floors”. Under Measurements included but stated separately reference is made to the outer face. Isn’t this the same as the external face/outer perimeter referred to above? Part 3 Component Areas refers to the outside face. For consistency only one term should be used. Under IPMS 3C, should the definition be re-worded as follows “The area in exclusive occupation, excluding the floor area occupied by full height internal walls and columns and doorways/thresholds, measured to…”. This more accurately describes the concept. Under IPMS 3C, should the word “perimeter” be removed from the second bullet point. I don’t understand the use of the word in this context. Isn’t the concept to measure to the IDF for exterior walls and the FS for the internal walls?

14. RICS BENELUX - Jeroen Govers, Belgium: IPMS 3A – third bullet point: the centre line of walls shared with common facilities should be used, not the finished surface.

15. RICS GERMANY - Rüdiger Hornung, Germany: Subtitle Measurement practice, 2.paragraph: change 1.sentence, it would be better to state what kind of relation exists instead of denying a direct link.

16. RICS OCEANIA - Group Response, Oceania: There are too many options for IPMS 3. If it is going to concentrate on the occupier, it should be to the internal walls and be on a unit by unit basis only. This would negate the requirements for IPMS 3A – to external walls and multiple occupancy and IPMS 3B – multiple occupancy. The thought is
that IPMS 3 might be restricted to using IPMS3C internal occupier. This goes to make a clear distinction between IPMS 1, IPMS 2 & IPMS 3. IPMS 3 indicates that areas such as parking and remote storage should be included but stated separately. Firstly, there are no guidelines as to how precisely these areas should be measured e.g. a basement car space in a row not adjacent to a structural column: should it be to centreline of line marking or otherwise? Is it possible that their inclusion, albeit stated separately, could potentially confuse a client in terms of the area being provided? It is worthwhile noting that in Australia, measuring internal areas of apartments have been generally undertaken using Property Council of Australia guidelines. However, the banks / financiers now instruct valuers to measure the ‘Net Sellable Area’, that is “paint to paint”: for all intents and purposes gross internal living area to internal face of external walls, to face of internal walls (that is excludes area of internal walls), to internal face of shared walls and walls adjacent to common areas and plant. In addition, areas taken up by cupboards and wardrobes are also excluded. This yields a Net Trafficable / Selling Area. The point here is that the market (client) is driving the method of measurement. One reason is that legal disputes have arisen where owners taking possession contest the area actually provided and that “offered” off the plan. In one case an apartment which was purchased for over $9 million, relatively small floor areas differences from that provided in off plan sales created a large financial dispute. Car parking and remote storage are not included in NSA, but are measured and noted separately. Should IPSM take cognisance of what large clients such as banks / financiers require and their reasons for wanting to adopt particular methods. To confuse matters more, when valuers value a unit off the plan, they adopt the developer’s measurement, which is normally calculated in accordance with the PCA method which:

- Measures to outside face of all external walls;
- Includes all internal ducts / structure except if the duct or structure exceeds 1m2;
- Includes internal walls;
- Measures to centre line of shared walls and partitions
- Measures to inside face of structural faces at common walls to stairs, ducts and lifts.
- Carpark spaces and balconies / terraces excluded. It is suggested that IPMS 3 be adopted. However, further consideration may be given to potential confusion of areas such as parking and storage
being included (albeit stated separately) as opposed to being excluded but measured and stated separately. In addition, perhaps further consideration may be given to adopting the approach that space taken up by internal walls, wardrobes and cupboard space may be excluded from IPMS3 measurement. IPMS 3 (A, B and C) do not appear to provide definitive instructions on how to measure to external walls that are not vertical. Clear guidelines accompanied by sample drawings/diagrams would support clearer understanding. Provision of guidelines, for instance, where facades slope inwards or outwards would be helpful.

17. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: It is unlucky, that IPMS 3 is not related to IPMS2. IPMS 3 should be a sublevel to IPMS2.
TARJAB - Janaina Jardim de Almeida, Brazil OK.

18. ZIA - Sabine George, Germany: Subtitle Measurement practice, 2.paragraph: change 1.sentence, it would be better to state what kind of relation exists instead of denying a direct link.

Response Summary: There were 18 responses to this question.

SSC Rationale: In preparing the Exposure Draft the SSC have considered these comments.
Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Of no practical use, not even for insurance calculation; should be deleted.

2. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall.

Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged:

1. Fully Usable Floor Area – The actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area G2, or any of the other component areas of the building.

2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined.

3. Combined Usable and Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

3. DUBAI LAND - Mohamad Kodhr Al-Dah, Dubai: Diag 9, Page 25: IPMS 3A is the closest to what we use in DLD. Perhaps consider adding half of the boundary or separation walls? This would make it compliant with current DLD standards.
4. KNIGHT FRANK LLP – Andrew Gooding, UK; *Our comments on the individual standards are covered by our comments above.*

5. MBIGUCCI - Janaina Jardim de Almeida, Brazil: *Ok.*


7. TARJAB - Janaína Jardim de Almeida, Brazil: *OK.*

**Response Summary:** There were 7 responses to this question and a further 47 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

**SSC Rationale:** The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Consultation Responses:

1. AEV - María Victoria Pavón, Spain: For cases in which the property is part of a condominium system with several property owners, the document does not contain any reference to the proportionate share of the common areas of the building. The property and the floor area of these common elements are sharing by the owners. We believe that this reference is very important, even though the assignment of the proportional part is left to the different ownership schemes specified in each Country or region. It is important because the surface area of these common elements contribute to knowing not only the characteristics of each unit, but also crucial elements to identify other attributes thereof, such as value or construction cost, or additional elements that influence such attributes, such as the allowable building area on the plot where the building sits.

2. CAXTONS -Charles Oliver, UK: Ditto; superfluous because it is the same as IPMS 1 (see diagrams 4 and 10).

3. C K WONG - C K Wong, Hong Kong: It is unclear how IPMS 2 – Residential enables Users and Service Providers to make direct floor space comparisons between data from different market practices.

4. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall. Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged: 1. Fully Usable Floor Area – The
actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area G2, or any of the other component areas of the building. 2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined. 3. Combined Usable and Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

5. DUBAI LAND - Mohamad Kodhr Al-Dah: Diag 10, Page 26: I cannot for the life of me understand why the wall supporting the staircase is excluded from the area! It also rattled the brains of my more experienced colleagues. Can you please elaborate on this?

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


9. PLOWMAN CRAVEN - Robert Ash, UK: This is identical to Diagram 4 so why are both needed?

10. PRIVATE RESPONSE - Anonymous, MENA: Shouldn’t the external area on the ground floor underneath the balcony (adjacent to the French doors) be hatched and stated separately as an area functioning similar to a balcony on upper floors? If the car parking area is internal (an integral garage), shouldn’t it be shaded blue (it’s in exclusive occupation and to be included in IPMS 3 but stated separately) be shaded in blue? Does the same apply if it is an external car parking space in a detached garage? How should it be treated if it is an external surfaced space (covered carport or uncovered)? Should the building partially shown below the car be shaded blue and included but stated separately as remote storage? Any structures included in the diagram which are not shaded should either be deleted or a key/annotation provided with an explanation as to why they are not shaded. This will help prevent confusion.
11. RICS PORTUGAL - Group Response, Portugal: A *basement with parking area should be included.*

12. SAPOA - Greg Pietersen, South Africa: *I don’t understand the ‘white’ area (wall?) adjacent the stair on Levels 1 & 2.*

13. TARJAB - Janaina Jardim de Almeida, Brazil: *OK.*

**Response Summary:** There were 13 responses to this question and a further 46 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

**SSC Rationale:** The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Consultation Responses:

1. AEV - María Victoria Pavón, Spain: For cases in which the property is part of a condominium system with several property owners, the document does not contain any reference to the proportionate share of the common areas of the building. The property and the floor area of these common elements are sharing by the owners. We believe that this reference is very important, even though the assignment of the proportional part is left to the different ownership schemes specified in each Country or region. It is important because the surface area of these common elements contribute to knowing not only the characteristics of each unit, but also crucial elements to identify other attributes thereof, such as value or construction cost, or additional elements that influence such attributes, such as the allowable building area on the plot where the building sits.

2. ALEXANDER SYMONDS - Noel Gehren, UK: Are component areas A (Vertical penetrations greater than 0.25m²) included in all IPMS 3 standards?

3. CAXTONS - Charles Oliver, UK: Of no practical use - take out the walls between apartments, and re-name it IPMS 3A.

4. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.

5. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are
jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall. Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged: 1. Fully Usable Floor Area – The actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area G2, or any of the other component areas of the building. 2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined. 3. Combined Usable and Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.


9. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: If the outer walls are excluded from the IPMS – 3B, we believe also the shared walls between occupants should. Otherwise, there will be many cases where it is impossible to determine which part of the wall is to be taken into account and which is not. When excluding outer walls as well as shared walls between occupants the differences between IPMS 3 B and IPMS 3 C are very small, especially when also our advise is followed to make the area of all interior walls part of the IPMS 3 C area. So we can imagine that IPMS 3 will only get two possible definitions instead of three.

10. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: We believe to see inconsistence in diagrams on page 27 and 29 as in unit 1 und 4 the
surface of the two small windows has been included but not the surface of the two bigger windows just next to?

11. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

Response Summary: There were 11 responses to this question and a further 46 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

SSC Rationale: The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Consultation Responses:

1. CAXTONS - Charles Oliver, UK: Agreed, although for houses and bungalows it is superfluous because it is the same as IPMS 2 - see diagrams 6 and 12.

2. C K WONG - C K Wong, Hong Kong: It is unclear how IPMS 2 – Residential enables Users and Service Providers to make direct floor space comparisons between data from different market practices.

3. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall. Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged: 1. Fully Usable Floor Area – The actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area G2, or any of the other component areas of the building. 2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined. 3. Combined Usable and Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

4. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.
5. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

6. MOHAMMED ALI - Mohammed Ali, UK; Good diagrams.


8. PLOWMAN CRAVEN - Robert Ash, UK: This is identical to Diagram 6 so why are both needed?

9. PRIVATE RESPONSE - Anonymous, MENA : Shouldn’t the external area on the ground floor underneath the balcony (adjacent to the French doors) be hatched and stated separately as an area functioning similar to a balcony on upper floors? If the car parking area is internal (an integral garage), shouldn’t it be shaded blue (it’s in exclusive occupation and to be included in IPMS 3 but stated separately) be shaded in blue? Does the same apply if it is an external car parking space in a detached garage? How should it be treated if it is an external surfaced space (covered carport or uncovered)? Should the building partially shown below the car be shaded blue and included but stated separately as remote storage? Any structures included in the diagram which are not shaded should either be deleted or a key/annotation provided with an explanation as to why they are not shaded. This will help prevent confusion.

10. RICS PORTUGAL - Group Response, Portugal: A basement with parking area should be included.

11. SAPOA - Greg Pietersen, South Africa: I don’t understand the ‘white’ area (wall?) adjacent the stair on Levels 1 & 2.

12. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

Response Summary: There were 12 responses to this question and a further 46 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

SSC Rationale: The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor
Plans to highlight key measurement Areas and measurement boundary lines.

Consultation Responses:

1. AEV - María Victoria Pavón, Spain: The definition IPMS 3C is the most similar to usable floor area (our “superficie útil”) which is in wide use in Spain. The diagrams exclude the projection of the door lintel from the usable floor area. This decision not only differs from the practice in Spain (including the areas marked in the following diagrams within the usable floor area), but it seems conceptually dubious (this area is covered by pavement like surfaces that are included in IPMS 3C), inconsistent with the definition standard used for "internal dominant face" and therefore technically inappropriate.

2. CAXTONS - Charles Oliver, UK: Agreed, but re-name it IPMS 38.

3. C K WONG - C K Wong, Hong Kong: The hatched areas (balconies) in Diagram 3 to 7, 10 to 14 are not defined i.e. whether they are excluded/included and/or need to be separately stated. According to IPMS 3, the area of parking is to be included and stated separately. The parking area in Diagram 10, 12 and 14 however are not shaded accordingly and a remark on its treatment is not provided.

4. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall. Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged: 1. Fully Usable Floor Area – The actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area
G2, or any of the other component areas of the building. 2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined. 3. Combined Usable and Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

5. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

6. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

7. MOHAMMED ALI - Mohammed Ali, UK: Good diagrams.


9. NETHERLANDS COUNCIL FOR REAL ESTATE ASSESSMENT - Mr. J.G.E. Gieskes, Netherlands: Our advises for changes to the IPMS 3C definition are given on the previous pages. The most important are concerning areas with limited height, the are of interior walls, the measuring of staircases and of small constructive elements.

10. PLOWMAN CRAVEN - Robert Ash, UK: Risers appear to be uncoloured (correctly) but should they not be stated as exclusions in 4.3.2?

11. RICS SWITZERLAND - Mr. Stämpfli, Switzerland: We belief to see inconsistence in diagrams on page 27 and 29 as in unit 1 und 4 the surface of the two small windows has been included but not the surface of the two bigger windows just next to?

12. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

Response Summary: There were 12 responses to this question and a further 46 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

SSC Rationale: The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide
greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.
Consultation Responses:

1. AEV - María Victoria Pavón, Spain: The definition IPMS 3C is the most similar to usable floor area (our “superficie útil”) which is in wide use in Spain. The diagrams exclude the projection of the door lintel from the usable floor area. This decision not only differs from the practice in Spain (including the areas marked in the following diagrams within the usable floor area), but it seems conceptually dubious (this area is covered by pavement like surfaces that are included in IPMS 3C), inconsistent with the definition standard used for "internal dominant face" and therefore technically inappropriate.

2. CAXTONS - Charles Oliver, UK: Agreed, but re-name it IPMS 38.

3. C K WONG - C K Wong, Hong Kong: It is unclear how IPMS 2 – Residential enables Users and Service Providers to make direct floor space comparisons between data from different market practices.

4. CLGE - Maurice Barbieri, Europe: With regard to the diagrams for IPMS 3A, IPMS 3B and IPMS 3C, none of these conform to a model that we can recognise in European practice. In many jurisdictions, party walls between ownerships in apartment blocks are owned by a management company, which also owns and maintains the external and internal structure of the building. The individual owner or occupier has no availability or legal right to these features and is precluded from interfering with them. In cases where party walls are jointly owned by the owners on either side of the wall, for instance, in the case of semi-detached or terraced houses, the party walls are owned in common, i.e. each owner has full ownership of all the wall, jointly with his neighbour, and does not have exclusive or separate ownership of any part of the wall. Standard measurement specifications to meet these circumstances might be useful. Three possibilities could be envisaged: 1. Fully Usable Floor Area – The actual fully usable floor area available exclusively to an occupier, i.e. Component Area G1 Living Space – not including restricted floor area G2, or any of the other component areas of the building. 2. Combined Usable Floor Area – Component Areas G1 Fully Usable Floor Space and G2 Restricted Floor Space combined. 3. Combined Usable and
Potentially Usable Floor Area – Component Areas G1, G3 and B2B combined, where increased floor space could be generate by the removal of walls/partitions fully in the ownership of the occupier, whose removal would not be constrained by legal, functional or structural reasons.

5. GIF - Dr. Ira Hörndler, Germany: Terrace and veranda in ground floor of the dwelling have to be coloured. Please ad a caption of the used colours (this would help in every diagram).

6. KNIGHT FRANK LLP – Andrew Gooding, UK; Our comments on the individual standards are covered by our comments above.

7. MBIGUCCI - Janaina Jardim de Almeida, Brazil: Ok.

8. MOHAMMED ALI - Mohammed Ali, UK: Good diagrams.


10. PRIVATE RESPONSE - Anonymous, MENA: Shouldn’t the external area on the ground floor underneath the balcony (adjacent to the French doors) be hatched and stated separately as an area functioning similar to a balcony on upper floors? If the car parking area is internal (an integral garage), shouldn’t it be shaded blue (it’s in exclusive occupation and to be included in IPMS 3 but stated separately) be shaded in blue? Does the same apply if it is an external car parking space in a detached garage? How should it be treated if it is an external surfaced space (covered carport or uncovered)? Should the building partially shown below the car be shaded blue and included but stated separately as remote storage? Any structures included in the diagram which are not shaded should either be deleted or a key/annotation provided with an explanation as to why they are not shaded. This will help prevent confusion.

11. RICS GERMANY - Rüdiger Hornung, Germany: Terrace and veranda in ground floor of the dwelling have to be coloured.

12. RICS PORTUGAL - Group Response, Portugal: A basement with parking area should be included.
13. TARJAB - Janaína Jardim de Almeida, Brazil: OK.

14. ZIA - Sabine George, Germany: *Terrace and veranda in ground floor of the dwelling have to be coloured. Please ad a caption of the used colours (this would help in every diagram).*

**Response Summary:** There were 14 responses to this question and a further 46 responses were received on question 7 on whether all other diagrams were clear in demonstrating the concepts to which they apply.

**SSC Rationale:** The SSC considered the responses received and have revised the diagrams and text within the Exposure Draft to provide greater clarification on the measurement of balconies, terraces and other areas. The SSC have also included magnification within the Floor Plans to highlight key measurement Areas and measurement boundary lines.