Chapter 4 – Delphi findings and analysis

This chapter summarises the results of the Delphi exercise, critically analyzing the selection of Concepts, Issues, Policy Options (or Actions) and Action Plans presented to participants and also their responses. It gives the reasoning behind main conclusions drawn at the time from each Stage of the Process.

As with the recording of Committee minutes, dominant or majority views among participants are stressed but minority views are also noted, especially where they belong to people with expert knowledge of that particular subject. Except where permission has been given to publish names, anonymity of individual Delphi Group members is respected, by using their reference numbers '#n' and quotes taken from the respective Delphi Questionnaire Analysis (Appendices F, H or M). Where applicable, the responses of non-Delphi overseas respondents to the summer 2004 FIG questionnaire (see chapter six) and attendees at four presentations later that year to British audiences of Value Mapping stakeholders (see chapter five) are included.

Sections in the chapter follow the chronology of the Delphi Process and deal with a series of broad questions:

- Were the Concepts relevant and useful?
- Were the Issues chosen the right ones?
- What Issues were found most intractable, important and/or controversial and why?
- Did the Policy Options/Actions resonate?
- Can a realistic Action Plan be set out?
- Can benefits be discerned at this stage?
- How successful was the Delphi Process?

4.1 Value Mapping Concepts

The five Concepts presented to the Delphi Group were all broadly accepted as valid (see Appx.F). All Concepts achieved a Group score of between 3.3 and 3.7. There was a consensus that: "**Land Value** can, albeit with some difficulty, be separated from gross property value and should be based upon Market (or 'Fair') Value" (Concept One, Appx.E:5). Less fulsome agreement was found that: "**Landvaluescape** is economic reality, which can usefully be mapped as an aid to good land management and an efficient property market" (Concept Two, Appx.E:6); or that "UK nation-wide Value Mapping presupposes a Government initiative to conduct **a national Land Valuation**, using property tax data" (Concept Three, Appx.E:7); that "**Rolling revaluation** of property tax assessments could not only be enabled by Value Maps but make their production viable for other purposes" (Concept Four, Appx.E:8); and "If **Tax Effect Demonstrator** [TED] value maps have proved useful in other countries, they ought to prove useful in the UK" (Concept Five, Appx.E:9). The relevance of each Concept to what the Delphi Group was being asked to undertake is discussed below, along with the comments raised by participants.

Concept 1: Land Value

"Land Value can, albeit with some difficulty, be separated from gross property value and should be based upon Market (or 'Fair') Value".

Although there was a very large measure of agreement with the Land Value statement, it was not strong. Four people 'partly' disagreed with it but the Group appeared to accept that conceptually land value was real and was different in its behaviour from property value.

One experienced valuer suggested that discrete assessment of separate land and building values was often inappropriate. Nobody questioned the assertion that land valuation "is likely to become standard practice for all UK commercial valuations". However one of the two who disputed the basic statement (#12, not a valuer) responded with a 150-word essay in which the key sentence was: "Until there are more sophisticated ways of modelling land use and land value within a unified whole we will not be able to derive a fair assessment of the latter."

This anticipated the importance of several related issues, such as establishing HABU and using mass assessment techniques (see pp.37-8 & 53-61). It also shows that being technically able to separate land value from gross property value is not the same as achieving acceptance by the taxpaying public of the separate component values when applied to market or tax transactions.

Concept Statement 2: Landvaluescape

"Landvaluescape is economic reality, which can usefully be mapped as an aid to good land management and an efficient property market".

The commentary on this Concept (Appx.E:6) extended the site-specific Land Value to the economic landscape and introduced the term Value Maps to the Delphi Group as "representations of Landvaluescape". #12 disagreed with this too, apparently because it implied that Landvaluescape **would** (as opposed to **could**) be an *"*aid to good land management*"*. This illustrates the danger of including three subjective adjectives in the Concept Statement: 'good' (land management); 'useful' (maps) and 'efficient' (property market). It explains why, as #12 says: "most planners shun land values and ignore land market impacts in judging physical planning issues." #12 asserted that there is a *"*need to explore land use controls before considering land values" and that *"*the key to an efficient property market lies in access to good information, which in the case of landvaluescape is sadly lacking.*"*

These comments indicate that some influential people believe it is not possible, at least in Britain, to produce mathematically sound spatial models of Landvaluescape. The logical consequence of this view is that an 'efficient property market' is unachievable, since 'good information' (about property prices) is lacking. Changing the workings of polity relating to land use planning and GI infrastructure could resolve this.

Sceptics in Landvaluescape were outnumbered 4:1 at the start of the Delphi. However as a result of the above comments two new Issues were introduced in Round Two, to elicit views on whether mapping Landvaluescape would be "an aid to good land management" (Issue 2/8) and also "an aid to an efficient property market*"* (Issue 2/7).

Concept Statement 3: **National Land Valuation**

"UK[1] nation-wide Value Mapping presupposes a Government initiative to conduct a national Land Valuation, using property tax data".

This was the first mention of taxation to the Delphi Group. Several applicants to join the Group had already alluded to a connection between Landvaluescape and LVT, probably knowing the researcher's interest in the latter.

Several respondents questioned the assumption that a national land valuation would inevitably be state sponsored. However they did so hesitantly and qualified with comments (emphases by the author) such as: "At a coarse level, this could be done privately" (#44) and "You could envisage a situation where a large insurance company or pool of insurers get together to develop a value map for the UK without government sponsorship" (#45); again: "It depends on what the value mapping is to be used for"(#12) and "Value mapping has an intrinsic value but could be used for a number of purposes"(#49). This last person felt strongly enough to disagree with the entire Concept Statement, saying that whilst it **could** be a Government initiative it need not be.

The more common view was that, realistically, "central government sponsorship and involvement is essential" (#41) or "I can only see this happening as a result of Government initiative" (#7), which led to 19 out of 29 positive scores. However a divide became evident within the Group, between (a) the minority who saw Value Maps as a coarse or crude small-scale national initiative and hence possibly without a link to taxation and (b) those who saw it inevitably linked to valuation at a land parcel level, if not initially then as a long-term objective.

Concept Statement 4: Rolling Revaluation

"Rolling revaluation of property tax assessments could not only be enabled by Value Maps but make their production viable for other purposes".

This Statement compared the recent move to 'continuous revision' of the OS topographic basic scales mapping (Ordnance Survey, 2007), address gazetteers (NLPG, 2008) and electoral registration systems (Ministry of Justice,

[1] The lack of initial clarity as to the geographic scope of this research ('UK' here, 'Britain' or even 'England' elsewhere) did not seem to cause confusion among Delphi participants, none of whom commented on it.

2008) and introduced the idea of similar continuous Landvaluescape monitoring.

Revaluation frequency is covered in the literature review (pp.44-5). The assertion made in the Round One paper (Appx. E:9) that: “Maintaining property tax databases in between nation-wide revaluations can cost far more per year than those revaluation exercises” was based on VOA’s quinquennial review of its own activities (VOA, 2000:7.3.3), which forecast that maintaining the 2000 Revaluation business rating lists and defending appeals over five years (the period between revaluations) would cost twelve times more than the revaluation itself (£375m:£30m). Since then, a distinguished former rating expert has suggested that annual revaluations for business rates were worth considering (Heard, 2005).

Over half the Delphi Group positively agreed with this Concept Statement and only six of them disagreed with it. The comment by one dissenter (#12) may indicate a misconception: *“*It is naïf to assume that Value Maps will make any difference to how often the property tax assessments will be re-valued.” The Statement is not intended to imply that the ability to produce Value Maps will of itself lead governments to adopt Rolling Revaluation for property taxes. Rather it is saying that a government which already wishes to adopt Rolling Revaluation will find that the technology that makes this viable also makes it possible to produce Value Maps. This will help make property taxes more understandable and hence even more politically acceptable, because the tax can be **seen** to be more equitable. As #5 put it: “I support frequent revaluations but do not see that value maps give an added dimension*.”*

More than one member of the Group made the proviso that the underlying data and algorithms must be good enough to enable fine tuning of the changing Landvaluescape model: “The issue is the quality of other data to enable real value to be driven out” (#38).

Concept Statement 5: Tax Effect Demonstrator (TED)

“If Tax Effect Demonstrator value maps have proved useful in other countries, they ought to prove useful in the UK”.

The sensitivity of this whole research topic was illustrated by the way #12 responded to the use of the word ‘ought’ in the final Concept Statement. The

Group was ambivalent about the TED idea: people were prepared to accept that if it has proved useful in other countries (see chapter five) it ‘ought’ (i.e. ‘would be expected’) to be found useful here in the UK. But the word was taken in its moral sense by #12.

The Group showed a lack of experience of what a TED might show and how useful it might be, which confirmed the need for this research to include a ‘demonstrator strand’ (chapter five). One participant expressed the view that the experience with TED elsewhere could not be transferred to Britain until the tax systems were more similar. That implies the need for a tax-reform-led Action Plan.

4.2 Defining Britain's Value Mapping Issues

In addition to the five Concepts, the Delphi Group were initially asked for their views on 28 Issues suggested to be 'of importance' to any implementation of British Value Mapping. This section looks at whether the Group accepted these Issues as important, also whether those that were seen to be important was also 'desirable' and 'feasible'. It explains why the final set of Issues emerging from analysis of Round Two (Appendix H) was not the same set that were presented in Round One (Appendix E), as shown in Table 4/1.

The table summarises how some Issues were redefined, merged or dropped during the Delphi Process. Five Round One Issues were dropped because the Group did not score them as 'important' enough. Three other Issues, all linked to Landvaluescape, were significantly reworded. Two entirely new Issues were introduced into Round Two, of which only one survived. In addition, eleven of the remaining 16 carried-forward Issues had their wording slightly changed and four were merged (2/1 into 2/3; 5/4 into 5/3). Finally three Issues that were carried forward to Round Two essentially unchanged needed only cursory consideration in the Action Plan stage (Round Three), because the Group remained unconvinced of their relevance. The changes to Issues are explained more fully in Appendix F.

Under the 'Dimensions scored' column in Table 4/1, where boxes are 'greyed out', the 'D (desirability)' and 'F (feasibility)' dimensions were not scored. Also scored for all Issues were 'Importance' in Round One (which became 'Relevance' in Round Two) and 'Confidence' for Round Two (see chapter three, pages 123-4).

Table 4/1: List of Issues			
Issue Ref.	**Description** [Words in **bold** added for Round 2; words ~~in strike-through~~ deleted in Round Two. Issues totally 'greyed out' were dropped for Round Two. Issue Refs. in **bold** were newly introduced for Round Two.]	**Dimension scored**	
		D	**F**
1/1	Inertia or insularity among UK valuers.		
1/2	~~Difficulty of~~ Specifying 'highest and best use' for ~~market/fair~~ valuation of land, under the UK planning system		
1/3	'Appeal culture' liable to swamp any system where land values are used for property tax assessment		
1/4	Sheer workload imposed on valuers		
1/5	~~Need for~~ New legislation to define 'land value'		
1/6	Perceived threat to land with non-monetary 'value' (e.g. heritage or wildlife conservation and recreation) if its market value is exposed.		
2/1	Difficulty of converting 'price per land parcel' to 'price per unit area', necessary for modeling land values.		
2/2	**Maintaining currency of site values** ~~Difficulty adjusting specific site values to a common base date, where values are changing rapidly over time~~		
2/3	Mass use of subjective valuation data **in modelling land values** other than for purpose for which it was intended.		
2/4	**Deciding which 'geographies' to use in landvaluescape models** ~~The 'Modifiable Areal Unit Problem' (MAUP), in which major differences in outcome from spatial analysis result, depending on where boundaries of aggregate values are drawn.~~		
2/5	**Development of cartographic conventions and protocols for Value Maps.** ~~Treatment of 'fuzzy' values over large areas where recent market valuation data is sparse~~		
2/6	Lack of transparency in the 'black art' of spatial data analysis		
2/7	**Impact of landvaluescape on property market, including spatial planning decision-making.**		
2/8	**Statutory functions of Value Maps**		
3/1	~~Political sensitivity of~~ **Commissioning** a national land valuation for taxation.		
3/2	~~Technical problems with~~ completing and maintaining related data sets, such as addresses, ownership.		
3/3	~~Institutional problems~~ getting 'joined up thinking' between various agencies responsible for component data sets ~~needed for land taxation~~.		
3/4	~~Lack of~~ **A** single Government Champion for the idea.		
3/5	**Developing** a 'cadastre' of map-based land management information ~~in the UK political culture.~~		
3/6	Active resistance from landed interests to a perceived threat to their wealth		
3/7	~~Increasing pressure to find~~ **Finding** new, sustainable government revenue sources.		
4/1	Technological advances reducing cost of large-scale, frequent revaluations.		
4/2	Pressure ~~from local/regional/central government funding~~		

Table 4/1: List of Issues			
Issue Ref.	**Description** [Words in **bold** added for Round 2; words ~~in strike-through~~ deleted in Round Two. Issues totally 'greyed out' were dropped for Round Two. Issue Refs. in **bold** were newly introduced for Round Two.]	**Dimension scored**	
		D	**F**
	~~departments~~ to modernise property tax administration and save costs.		
4/3	**Having** better **property** market information in the public domain.		
4/4	Globalisation and convergence of professional practice in surveying generally.		
5/1	~~Public (i.e. taxpayer) pressure for more~~ transparency in tax assessments.		
5/2	Research funding in this field		
5/3	**Marketing Value Maps across all sectors**.		
5/4	Problems with quantifying benefits		
5/5	Data pricing, ownership, licensing and liability policies acting as barriers to wider public use of Value Maps.		

The hard-to-define Issues

Four of the initial Issues grouped under the Landvaluescape concept underwent changes in their definition:-

- Issue 2/5 ("Development of cartographic conventions and protocols for Value Maps" in Round Two) began as "Treatment of 'fuzzy' values over large areas where recent market valuation data is sparse". This recognized that even where data is sparse or of doubtful quality it may need to be mapped. The solution is partly a matter of spatial analysis technique, partly of cartographic design (Zeiler, 1999). One response at Round One was: "Well, get more data!" (#46). However as one GIS expert (#36) put it: "Fuzziness is not dealt with well, or really at all, in current GI software. If fuzziness is needed, significant developments would be required." Both comments are sound.
- Issue 2/2 ("Maintaining currency of site values" in Round Two) had been "Difficulty adjusting specific site values to a common base date, where values are changing rapidly over time" when the Delphi Group first scored it 2.75 in 'importance', yet it rose to 3.5 in 'relevance' when shortened and simplified. The most likely explanation for the change was the removal of the pejorative word 'difficulty', inappropriate when scores specifically on 'feasibility' were being sought.

The high relevance now assigned to the reworded Issue led to it being selected as a key Action in the Plan, whereas it might have had less prominence if the original wording had been retained. Significantly, in Round Two this Issue was also given a high 'desirability' score (3.5) and low 'feasibility' (2.7). The literature on modern property taxes elsewhere (e.g. Ward *et al*, 2004) is silent on technical problems of maintaining valuation currency, although Britain is not alone in experiencing political postponements of periodic revaluations (Plimmer, 2000; Rybeck, 2000).

- Issue 2/4 ("Deciding which 'geographies' to use in Landvaluescape models") had been the somewhat esoteric "The 'Modifiable Areal Unit Problem' (MAUP), (see pp.69-70). Five people, all self-assessed as no more than 'moderate' on spatial analysis, did not attempt to score this in Round One. However the remaining Delphi Group scored it a fairly high 2.7. Spatial analysis experts significantly saw it as important. It was regarded as so crucial in Round Two that the Group was not even asked to score it for 'desirability': unless values are to be recorded and mapped at the land parcel level, then it is a technical matter that must be solved. Chapter six includes examples from overseas.

  The Group thought that it would not be too difficult (feasibility score 3.1) and gave the reworded Issue a fairly high relevance (3.2). This is another example of how simple wording makes scoring easier.

- Issue 2/3 ("Mass use of subjective valuation data in modelling land values") in Round Two subsumed Issue 2/1 ("Difficulty of converting 'price per land parcel' to 'price per unit area', necessary for modelling land values.") The Group overall scored 2/1 low in importance at 2.2, although some spatial analysis and valuation experts scored it as high as '4'. Two important points were raised by those who gave it high scores: "plus issues relating to extreme value variance in adjoining parcels" (#48) and "there is not yet a complete land ownership parcel dataset for this country" (#36).

  Sub-division of land parcels and definition of parcel and valuation area boundaries at the micro level can be seen as sub-issues of this whole area (see also MAUP - Issue 2/4 above). However most of the Group

believed these matters can be solved, so it scored a not very relevant 2.9 in Round Two. The very low confidence score indicates that few felt competent to judge. Significantly all but one of those who did have confidence in their scores regarded this as an important Issue.

One of the Issues linked to TED was also hard to define and score for some of the Group:-

- Issue 5/3 was described in Round One as “Engaging potential commercial users of Value Maps sufficiently for them to even think about business benefits”. It had been found in earlier research (Vickers, 2003) where TED had been used that it was difficult for business taxpayers, who are not dealing routinely with property values, to understand the link between location (land) value of their premises, the property tax system and potential business profitability.
- Issue 5/4 in Round One was a further, more obtuse, attempt: “Problems with quantifying benefits*”*.

  Three quarters of private sector respondents regarded 5/3 as ‘important’ but half of them scored 5/4 lower. Other Delphi Group members did not score either high, however 5/3 was their problem not 5/4, judging by comments such as: “There are sufficient simple stated benefits to be able to argue the case” (#31).

  It was realized that both Issues relate to the marketing of Value Maps and when they were merged into a re-worded Issue 5/3 for Round Two “Marketing Value Maps across all sectors” this attracted high scores for ‘desirability’ and ‘feasibility’, although still not very high (2.6) for ‘relevance’.

Five Round One Issues were discarded for Round Two, either because they scored 2.5 or below or – as with 5/4 just described – they were close in meaning to another Issue.

- Issue 1/4 (“Sheer workload imposed on valuers”) was not seen as important by the majority of the Group who knew little about valuation. However most of the others did consider it a significant issue for their valuer colleagues, including two of three who work in tax-related matters

who scored it maximum ‘4’ without explanatory comments. What comments were offered suggest compensating benefits: “Computerisation and the VOA’s new approach should help” (#44). The literature on experience in other professions (Schmid *et al*, 2006) and in countries undergoing tax modernisation (including NI with its DR, see chapter two) does not support such fears.

- Issue 1/6 (“Perceived threat to land with non-monetary ‘value’ (e.g. heritage or wildlife conservation and recreation) if its market value is exposed”) was regarded as a non-issue by the Group, scoring only 2.3 in importance. One respondent (#49) who works with a regeneration charity asserted that “You **can** put a monetary value on …conservation if you want to”.
- Issue 2/6 (“Lack of transparency in the ‘black art’ of spatial data analysis”) was given a Group score of only 2.3. GIS expert #36 pointed out the wider problem: “Many people manipulate spatial data using widely available tools, but with no real knowledge of what they are dealing with or doing.” This does not just apply to valuation data, so it should not be a particular barrier to Value Maps.
- Issue 4/4 (“Globalisation and convergence of professional practice in surveying generally”) scored only 2.2, despite attention being drawn in the Commentary to moves to compel valuers to adopt standard practices that will allow global comparisons of commercial property values (see chapter two p.37). The globalisation of the property market has continued (Louargand, 2007; Gilbertson and Preston, 2008) but is not of itself a problem. Although dropped from the Delphi, the possible impact of globalisation is covered in the concluding chapter, in the light of subsequent events in global financial markets.
- Issue 5/2 (“Research funding in this field”) was only considered important by academics and scored 2.5 overall. Funding of such a politically sensitive subject (involving real estate, transaction information and tax) can be problematic (Best, 2004).

One new Issue introduced in Round Two as a result of comments by several Group members on the Landvaluescape Concept in Round One failed to achieve a high score in Round Two.

- Issue 2/8 (“Statutory Functions of Value Maps”) was introduced without an accompanying explanation other than a footnote (Appx. G:15) referring to “Round One analysis … commentary on Concept 2”. Although the Round One Analysis (Appx. F:12) sent to the Delphi at the same time as the Round Two form (Appendix G) did explain it, a low number of responses (18 out of 23) and three specific comments showed that the meaning had eluded some.

One Issue reduced in importance/relevance to the Delphi Group between Rounds One (2.9) and Two (2.6) and was also not seen as particularly feasible (2.9) or desirable (2.9). “Finding new sustainable government revenue sources” (Issue 3/7) effectively introduced tax reform without using the word ‘tax’. Although the Group included several land and tax policy experts, it was not seen as a particularly significant Issue. One comment by #31 mentioned “the current review of the balance of funding…talking about the need for ‘buoyant’ taxes”, referring to Raynsford (2004).

4.3 Issues Most Worth Tackling

Besides the Issues already covered, which proved either hard to define or relatively insignificant to the Delphi Group, there were a number of clearly definable Issues that were both relevant and feasible (scoring over '3') to a successful Value Mapping of Britain.

Figure 4/1 below (p.147), from the Round Two Analysis (Appendix H:24), shows the final scores of all Issues in descending feasibility score order (weighted by Group 'confidence'). A Group feasibility score of '3' was defined as "some R&D still required or further consideration or preparation to be given to public or political reaction", according to the Group's guidelines (Appx. G:12). Each feasible Issue is discussed here, in that order, taking account also of perceived relevance and (to a lesser extent) desirability.

First however there are three Issues for which a feasibility score was not asked but which the Group saw as both relevant and desirable.

- Issue 2/7 ("Impact of Landvaluescape on Property Market and Spatial Planning Decisions") was one of the two new Issues introduced after Round One responses had been analysed (Appx. F:12), prompted partly by a comment (#50) regarding the feedback effect of publishing stock market data, also by Thurstain-Goodwin's (2004) analysis of Lucas County AREIS Sales Ratio data before and after publication (see chapter five, page 193). It received a Group score of 3.3 for relevance and 3.1 for desirability.

  It was felt that 'feasibility' was not appropriate to score, because the impact referred to is known about and used elsewhere (see chapter six). Commenting "there can be little doubt that property price expectations will be increased around the margins of high valued areas", #22 endorsed the view expressed by #24: "…in my view landvaluescape would have a big impact on the property market."

- Issue 3/2 ("Completing and maintaining related data sets, such as addresses, ownership") was pejoratively prefaced in Round One by "problems with…". For Round Two not only were these words dropped but the question of feasibility was also discounted: by then it was apparent that all related datasets either already exist or the EU INSPIRE

Directive (EC, 2004) would probably oblige the UK Government to complete and maintain them within approximately the timeframe (2014, see Appx. B:8) by when the Delphi Group expected “Britain to be have been value mapped”.

It was the degree of relevance of this fact to Value Mapping and its desirability in its own right that the Delphi Group was being asked to score. As #10 put it in Round One: “These [technical problems] are important in that they need to be done, properly, but if the decision to do them is there, and adequate resources available, they are quite do-able. ….” The Issue was rated more desirable in its own right (3.6) than any other except transparency in tax assessments. The score for relevance (3.5) shows that the Group saw Value Mapping as part of a more generally improved land management system, which they support.

- Issue 1/5 (“New legislation to define ‘land value’”) was also not seen as a question of feasibility because there is, as stated in chapter two, an existing internationally accepted definition. Also valuers in the Group scored this as of low ‘importance’ in Round One. For the Group as a whole the Issue grew in relevance (from 3.0 to 3.3 in Round Two). “Current legislation is ill thought through and needs to be re-drafted - and without legislation many of your other issues will swamp the process” (#38). However it may not have to be resolved early on: “A simple agreed definition would suffice for debate” (#22) but “…by the time there is a tax basis it will need to be defined” *(#11).*

All the Issues discussed in the remainder of this section, plus Issue 2/4 discussed in the previous section, were thought by the Group to be both relevant and capable of being resolved, i.e. of being relatively worthwhile ‘easy hits’. It is notable that the ‘relevance’ score in Round Two for each was higher than ‘importance’ in Round One, showing that the Delphi Process helped participants become stronger in their views (see Figure 1, Appx.H:23).

- Issue 4/1: “Technical advances reducing the cost of frequent revaluations” is clearly feasible (see chapter six) but the Group were asked to score feasibility in order to see how it rated with them relative to other Issues.

The Group was collectively quite confident in their final and high score on desirability (3.6), although #12 commented: “I don’t want a computer to value my property ….we need better models…IT has a partial contribution”. The underlying assumption is that CAMA would operate on as richly attributed a property transactions dataset in Britain as it does elsewhere – which relates to a number of other Issues addressed below (4/2, 4/3, 3/3, 3/5).

- Issue 3/1 (“Commissioning a national land valuation for taxation”) was prefaced with the words “The political sensitivity of…” in Round One. Removal of ‘political’ may have helped produce a high feasibility score, or possibly respondents discounted the sensitivity in politics of property tax reform that #22 alluded to: “given that we are a nation of landowners, such a tax could lead to social unrest”.

  Although #49 said in Round One: “this need not be the purpose”, it would be hard to justify a national land valuation for land policy reasons alone.

- Issue 4/2 (“Pressure to modernise property tax administration and save costs”) could be the driver to commissioning a revaluation, as with NI’s DR (see chapter two, pp.54-5). For Round Two this Issue had been slightly reworded to remove the words “[pressure] from regional/local/central government spending departments [to modernize…]”. The property tax system for England and Wales, administered by the VOA, is already using GIS in a limited way (VOA, 2005:33) in order to reduce the level of expensive appeals and improve the acceptability of the current property taxes. #22, who recognized that “taxation is the driver [for Value Mapping]” and that it is politically sensitive pointed out: “… the rewards from modernisation and cost benefits will need to be high to overcome the inertia”. The Group were not asked to score desirability of this Issue, which is self-evident. Relevance was scored 3.1, below feasibility: 3.3.

- Issue 4/3 (“Having better property market information in the public domain”) is also desirable, by VOA’s logic in using GIS to reduce appeal rates, hence the Delphi Group were not asked to score this dimension. In Round One the words “Property industry (esp. investor) pressure to

have…" had begun the statement of this Issue. Two Delphi participants' comments then indicated that 'the industry' might exercise pressure the other way. However comment from a very senior property consultant (#27) "the majority of the industry still support a non-disclosure culture" was qualified by his subsequent "this is changing". The Group scored this high on feasibility (3.1), perhaps an indication that other drivers for change and the collective benefits to the property industry of efficiency, transparency and certainty in trading outweigh short-term advantage. The score for relevance was equal highest for any Issue, at 3.6.

- Issue 3/3 ("Getting joined-up thinking between various agencies responsible for component datasets") also scored 3.6 on relevance and was at the threshold score of 3.0 on feasibility: "not insurmountable" (#44). Desirability was not in question. Significant words ("Institutional problems" in front and "for tax purposes" after) were dropped following Round One. #27 claimed that agencies are "constrained by statute" stating: "I do not think this would be an issue if legislation was provided". Others thought it "was getting better anyway" (#31) and "moving in this direction" (#1).
- Issue 5/1 ("Transparency in tax assessments") lost "Public (i.e. taxpayer) pressure for more…" before Round Two. The aggregate Group score (desirability plus relevance plus feasibility) for this Issue was highest of all. Its score on relevance rose between Rounds more than any other. A key advantage of Value Maps is their ability to obscure individual tax liability whilst revealing the overall pattern of Landvaluescape over time and space to a fine degree, if land values are separated from gross tax assessments. "From a lay GI perspective, it would seem that the more GIS-type valuation is used, the more transparent it can potentially be" (#36). From someone who was involved in the NI DR came the comment: "Highly important in obtaining political support and buy-in from the public" (#24).
- Issue 3/5 ("Developing a cadastre of map-based land information") had been shortened from "Lack of a cadastre of map-based land management information in the UK political culture" in Round One. As

this was one of the more technical Issues, it was perhaps inevitable that GI policy experts scored it much higher than other participants. The considerable rise in Group score from 2.7 ‘importance’ to 3.3 ‘relevance’ and the high score (3.4) for ‘desirability’ in Round Two may show how non-experts were influenced by experts after reading the Round One analysis (Appx. F:20) where *“*the advent of e-conveyancing etc” (#26) and other “increasing e-government initiatives” (#31) were comments indicating “this culture is beginning to change*”*. The Group also scored this high in feasibility, which correlates to Land Registry’s confidence (Hollis, 2004) in being able (if required) to complete registers by 2013. One who works close to the INSPIRE European initiative (#36) stressed that “the effort in doing this should not be underestimated” and that the problem with a UK cadastre is “not so much a lack in the political culture, as a lack in reality”.

- Issue 5/5 (“Data pricing, ownership, licensing and liability policies acting as barriers to wider public use of value maps”) was discussed in chapter two (pp.78-83). The spread of scores on desirability and feasibility for this Issue was high with even non-experts scoring it high on relevance. Although the Group score was only 2.5 for desirability, detailed analysis is revealing. A senior data supplier figure who participated in the Delphi did not wish to give this Issue a ‘desirability’ score but scored feasibility confidently at a maximum ‘4’. Most of those close to the heart of the debate scored feasibility high. An exception was this project manager of a national public sector GI initiative, who confidently scored feasibility at only ‘2’ but elaborated perceptively:

  > Data pricing, ownership, licensing and liability policies are all huge barriers to wider public use of Value Maps and other cross-cutting projects. Therefore these barriers are very undesirable, and their existence makes initiatives such as LVT possibly unfeasible (#24).

  This area in GI policy that has made least progress since Lord Chorley (Department of Environment, 1987) remarked of Treasury’s rules in this area: “[they] have given little scope or incentive for meeting the demands of other [GI] users”.

- Issue 3/4 (“A single government champion for the idea”) was one of the few Issues where ‘relevance’ fell below ‘importance’ after Round One, when it rated second highest. Dropping the words “Lack of…” may have been the reason. Agreeing that the reason for failure to make progress on GI policy initiatives is linked to ‘lack of a Champion’ is different to being in favour of having such a Champion. In Round Two the Issue barely rated as either feasible (3.0) or relevant (3.1), or indeed desirable (3.1).

  The Delphi Group’s only NI member (#24 quoted above, with permission) gave this ‘4’ in every dimension. GI practitioners in the Group tended to welcome an independent Champion. “Without a government champion (or political pressure) this will never happen”, said one private sector GIS manager *(#38)*. At present no one Minister has overall responsibility for action on GI across UK or England. Yet it was noticeable at the 2004 AGI conference that there was recognition by Scotland, Wales and NI that a GI Strategy is vital to *e-government*. Also NI’s relevant datasets are all the responsibility of a single Agency.

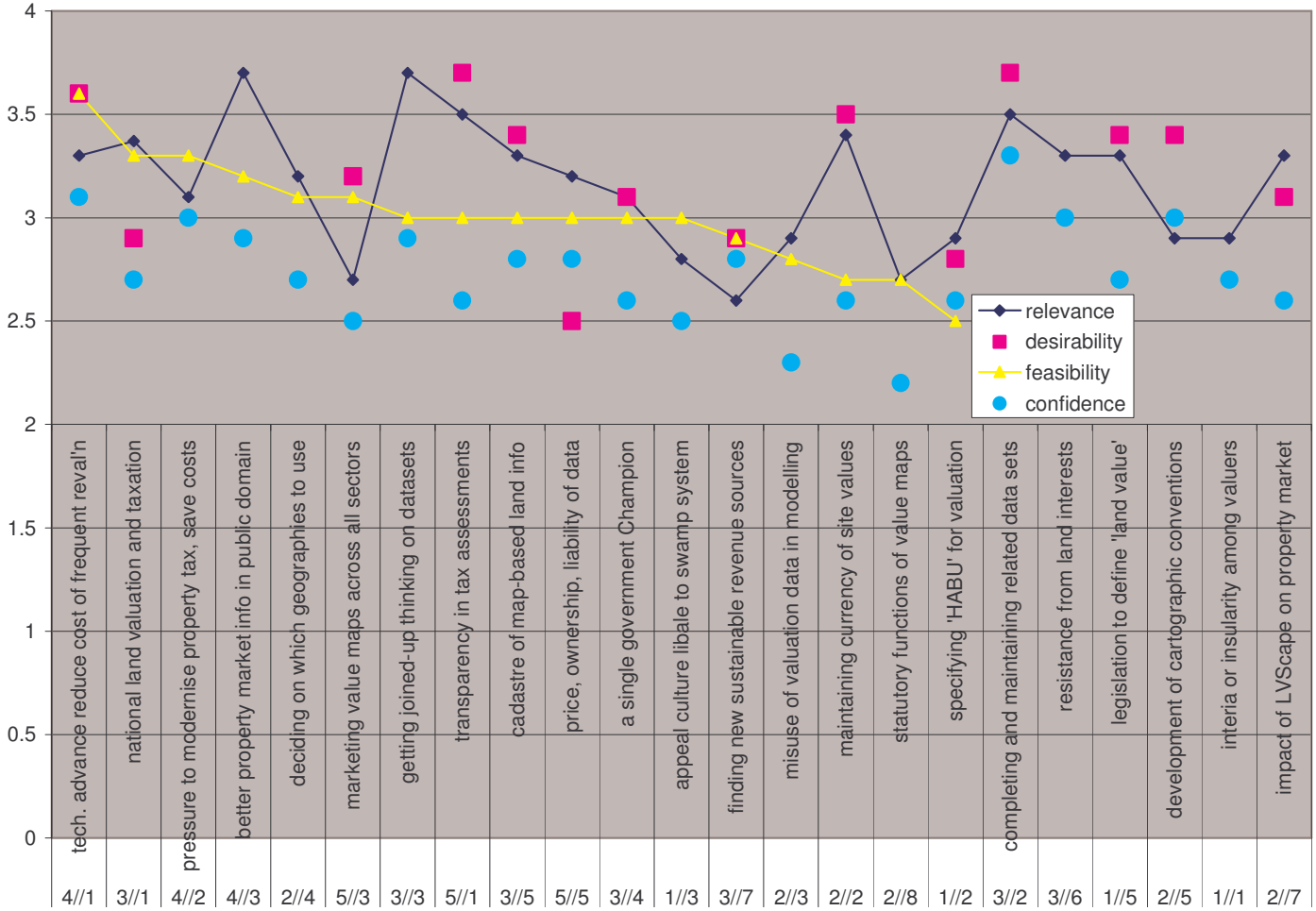

Figure 4/1: Issue Scoring after Delphi Round Two

4.4 The More Intractable Issues

Having discussed Issues that proved hard to define and those that the Delphi Group thought relatively easy to solve, there remain only four Issues that were not eliminated after Round One. Only one of these was felt, after Round Two, to still be possibly "a determining factor" (relevance score '3' – see Appx. G:12 Table 1) in the prospects for a British Value Mapping implementation. Only one was even scored on 'desirability'. Three of the four Issues that are discussed here are connected with the Concept of Land Value.

- Issue 1/1: ("Inertia or insularity among valuers"). With a Round One score of 2.8, this Issue only rose to 2.9 in Round Two relevance, where one of the only two comments demonstrates a false assumption that assessing land values must be linked with taxing them. #5 (a valuer) doubted "whether LVT would provide professionally acceptable valuations" and said "LVT would undoubtedly lead to increased workload for surveyors/valuers", without explaining why. The literature indicates the opposite, because it involves more efficient CAMA (see chapter two). However perceptions of valuers matter.

  #24 (a GIS practitioner) said that if valuer culture "is similar to the culture of other professional communities, then there is likely to be significant resistance to change". Advice to policy makers may then be tainted by ill-informed and unjustified views (e.g. Johnson and Hart, 2005 - cited in chapter two, page 58). However the Delphi Group as a whole did not perceive this Issue as particularly relevant.

- Issue 1/2: ("specifying 'HABU' for valuation of land under the UK planning system"). The Delphi Group gave very divergent scores in both Rounds, even within stakeholder groups and among valuation and planning experts who would fully understand this term (Appx F:10; H:29). In Round One, the leading words 'difficulty' and 'fair' produced a score of 2.9. With those words omitted, the Round Two score for 'relevance' remained the same. One view was:-

  > Use of land should be a planning (and hence political) matter. Once use has been determined a value can be calculated (taking into account external factors). Valuation should not determine use. (#22)

The Issue is the opposite: HABU **should** determine taxable value. Three market-oriented devices exist, which Delphi participants were not made aware of, that potentially deal with any perceived unfairness: Certificates of Development Potential (Hudson, 1976); Self Assessment (Bird and Slack, 2002:51-2); and Community Land Auctions (Leunig, 2004; Barker, 2006:157). The Delphi Group scored this Issue at 2.8 for desirability but only 2.5 for feasibility, indicating a need for more research and education on the above devices in both planning and valuation professions.

- Issue 1/3: ("Appeal culture liable to swamp any system where land values are used for property tax"). This Issue was one of the few where 'relevance' for Round Two dropped. '3' was the score in Round One, after which only the words 'in particular' (after 'land values') were omitted. As one experienced rating valuer (#5) indicated, the appeal rate is a function of the size of the tax bill and not the assessed taxable value: "I suspect that there would be a near 100% appeal rate initially, unless the level of tax was so low as to be meaningless". As a property appraisal academic (#11) put it: "Appeals spring from issues of fairness and transparency. If these principles are met, there should be confidence in a low appeal rate." If the HABU issue is dealt with and if Value Maps are used to improve transparency in the assessment process, the Delphi Group apparently thought this would not, of itself, be a major problem.
- Issue 3/6: ("Active resistance from landed interests to a perceived threat to their wealth"). Like the three previous Issues in this section, this 'resistance' relates to LVT. No desirability or feasibility was asked for. There was confidence in the high relevance score (3.3). However several comments indicated that there might be countervailing forces:

> The fact that some vested interests would be vocally opposed cannot be considered in isolation. Far more significant groupings (on the democratic scales) might be persuaded in favour of less taxation on income and more on wealth (especially landed wealth) (#11).

> This largely depends on which political party is in power. The issue is likely to be unimportant to a socialist party and conversely, important to a conservative party (#22).

Those scoring this high would probably agree with #31, a politician:-

> The interests with significant land holdings will have access to the means to lobby and campaign long and hard…

…as well as with this comment from someone with no apparent political connections, that this was “an issue that no governments have yet grappled with but need to” (#38).

4.5 Response to the Policy Options

Seven POs (Table 4/4) were presented in a logical order to the Delphi Group at the start of Round Two. A thorough commentary accompanied the analysis of responses to each PO in the report on this Round (Appx. H:4-21). The report concluded with a Draft Policy Plan incorporating fourteen POs (Appx. H:35-38 and Table 4/2 below), some created by splitting old ones but others in Round Three were entirely new. In the report on this final Round (Appx.M:6-20) they were called 'Actions', and are mostly by Government.

This section discusses the reaction of the Delphi participants to each of the POs but not to the Plan which they eventually comprised. A similar multi-dimensional approach to that used for Issues helped enrich the analysis (Appx.M:35-37). The section concludes by considering whether additional Actions might be needed.

Table 4/2 shows all Actions associated logically with related Issues and with POs in Table 4/4, highlighting (in ***bold italics***) those Issues and Actions which the Group felt were **both** highly relevant (score 4 or more) **and** reasonably feasible (over 3.5); showing in **bold** **underlined** those which were seen as relevant but not feasible; and leaving in plain font all others. This form of analysis was not carried out during the Delphi Process but has since been used as a further check on the completeness of the links between Issues and Actions and on the logic in the Group's thinking.

Table 4/3 was used in the Round Three analysis (taken from Appx.M:24) and shows links between Policy Actions, as seen by the Group. It also ranks Actions according to the three dimensions of relevance, desirability and feasibility, also overall by totalling those three scores. It was used to help construct the Action Plan, as described in the next section.

A standard deviation (SD) was computed for all three dimensions in which Actions were scored. SD is a way of quantifying convergence of Group views: low SD indicates good agreement.

The Actions are discussed in numerical order because at this stage in the Delphi Process the logical linkages between them were not known. However the order was thought to be approximately chronological.

Action (Rd. 3)	Brief description (full wording in Table 4/5)	POs	Related Rd.2 Issues (page)	Summary Remarks (see pages 155-169 and Appx.M:7-22)
1	***Government support for idea of national land valuation***	1	***3/1*** (143) ***1/5*** (142)	Requires wider acknowledgement that 'unearned increment' is an important economic factor – leading to 'desk studies'.
2	**Monitoring of key datasets to be continuous**	6	***4/1*** (143) **2/2** (136) ***3/3*** (144)	Requires joined-up cross-departmental thinking on public sector datasets.
3	GI Panel report to different Department		***5/5*** (145)	Not important with a strong GI Champion, ensuring joined-up thinking.
4	Consortium offer to fund national land valuation		5/3 (138)	Useful as indication of wider benefits of Value Maps. Unlikely without Gov't commitment to land valuation in principle.
5	**PPP Agreement to produce and maintain land value dataset**		5/3 (123) **2/2** (136) ***2/4*** (137) ***3/5*** (145)	Controversial, to be handled sensitively following Action 6.
6	***Value Maps Market Analysis***	3, 6	5/3 (138) ***3/1*** (143) ***3/3*** (144) 2/5 (136)	Doing it is not the same as agreeing 'in principle' to do it. The latter is more important.
7	***Appoint Government GI Champion***	4	***3/4*** (146) ***3/3*** (144) **3/2** (141)	Sends a signal, provides focus for policy making but could lead nowhere with wrong person.
8	**Complete UK Land Registers**		**3/2** (141) ***3/5*** (145) 2/3 (137)	Not widely known – but crucial – is the expectation by HMLR that it could happen soon.
9	Separate custodianship responsibilities (fr. prod'n / use of data)	3, 7	***5/5*** (145) 5/3 (138) ***3/3*** (144) ***3/4*** (146)	Not crucial but could happen anyway and would affect how Value Maps are implemented.
10	Network of Local Land Information Managers	6	***3/3*** (144) **2/2** (136)	Not crucial but could happen anyway and w'd affect how Value Maps are implemented. "Central vs. Local" tensions to resolve.
11	**Re-engineer property tax IT systems**	5	***4/1*** (143) ***3/1*** (143) ***4/2*** (143) ***4/3*** (144) ***5/1*** (144) 1/3 (149) 2/3 (137) **2/2** (136) 1/1 (148)	Crucially linked to prospects for tax reform of a particular (LVT) kind, although desirable in its own right.
12	Allow tax-raising trials of LVT	2	**3/6** (149) 3/7 (140) ***3/1*** (143) 1/2 (148) ***1/5*** (142) ***2/7*** (141)	Highly contentious, not crucial to Value Maps unless Tax-Led Action Plan seen as essential.
13	***Revive National Land Use Database***		1/2 (148) ***3/5*** (145) **2/2** (136) 2/8 (140) **3/2** (141)	Crucial to a non-Tax-Led Action Plan, border-line feasibility.
14	Extend property taxes to all urban land	7	1/1 (148) **3/6** (149) 1/2 (148)	Enabled by – and to some extent enables – Value Mapping.

Table 4/2: UK Value Mapping Candidate Actions, related to Issues

(use of **bold** and ***italics*** explained on previous page)

	Action No.													
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**
Rel. rank	1	4	14	10	6	2	3	9	8	11	7	12=	5	12=
Des. rank	3=	3=	11	14	9=	6	7	1	8	12	2	14	5	9=
Feas. rank	4	9	3	14	10	2	1	11=	6	11=	8	7	5	13
O/a rank	1	5	10	14	9	2	3	7	8	13	6	11	4	12
Action 1		3	1			1	1			1			1	
2	4		1	1		1	1							
3	1	1				1	3							
4	1				3									
5	2	2		2		1		1					1	
6	3			2	4		1							
7	2	2	5			2								
8		2												1
9	1	1		1	1								1	
10	2	1					1		4					
11	1									1				
12	1	1	1	1	1	1	1	1			3			
13	1				1				1	1				
Action 14										1	2	3	2	
Notes:	The number in the box indicates how many of the 20 respondents stated that they thought a logical link existed between the Action on the 'y' axis and the Action on the 'x' axis. The link is 'from y to x'													
	Shaded rows indicate Actions considered High Priority at the start of the round.													

Table 4/3: Links Between – and Ranking of – Policy Actions

PO No	Description
1	Government to support existing LVT 'desk studies' by others in trial areas, specifically by allowing free access to confidential publicly held property value data
2	Enabling legislation, possibly based on the BIDs section of the 2003 Local Government Bill, to allow trials of LVT in a range of areas
3	Private sector led UK Value Maps Market Analysis, building on NLIS & Project Acacia
4	Government to appoint a single UK politician as Champion to oversee all national geo-data initiatives, including valuation within land management on the European model
5	Re-engineering VOA's IT systems to enable it to take account of advances in CAMA and GIS techniques, both for internal efficiencies and wider public benefits
6	Compare first- and second-order costs of continuing with the present UBR/CT property taxes (albeit modernised and using GIS) with periodic revaluations, and replacing both with LVT and rolling revaluation
7	Extend UBR to cover all non-domestic, non-agricultural land, including vacant sites and derelict buildings at HABU valuation, to give nation-wide coverage of property values

Table 4/4: Draft Policy Options (Round Two)

No	**Description** (shorter wording in **bold**)
1	Government statement of **support for the idea of a national land valuation**, independent of tax reform and primarily as a potential tool of land policy.
2	Government to accept publicly that, in principle, the **monitoring of all key datasets should be continuous** and not periodic.
3	Government's proposed "**GI Panel" to report to a different Department** than OS (preferably Cabinet Office).
4	Private sector **consortium offer to Government to fund national land valuation**.
5	Public Private Partnership Agreement to produce and maintain **consistent all-embracing land value dataset**.
6	Commissioning a UK **Value Maps Market Analysis**
7	Appointing a **Government Champion for GI**, including Value Maps.
8	**Completing the UK Land Registers** (map based).
9	**Separate data custodianship responsibilities** from production and use, creating a State Enterprise Centre of Registers (SECR).
10	Create network of **Local Land Information Managers** (LLIMs)
11	**Re-engineer property tax IT systems** to fully exploit GIS / CAMA.
12	**Allow tax-raising trials of LVT**
13	**Revive National Land Use Database** (NLUD) acc. to original purpose.
14	**Extend property taxes to all urban land**

Table 4/5 – Policy Actions (Round Three - in full)

Action 1: Government support for idea of national land valuation.
This Action was seen as a root of any Action Plan, is highly relevant to Value Mapping and would unblock most barriers to its implementation. The Group ranked this Action top in Relevance (score 4.75), equal third in Desirability and fourth in Feasibility. This accords with the scores on Issues 3/1 ("commissioning a national land valuation for taxation") and 1/5 ("legislation to define 'land value'"). SDs on Relevance and Desirability were low, however there was a considerable divergence of views on Feasibility: #3, #5 and #32, all private sector figures, suggested that a strong political or business case would be needed for Government to give this any priority.

Round Two included no equivalent PO but PO1 ("desk studies by others" of LVT) presupposed that Government would relax statutory restrictions on access to VOA data. A "not unfavourable predisposition towards LVT" (Appx.G:3) was the phrase used in the Round Two questionnaire as the Government position needed to take this step. Some participants had queried the need for any link between tax reform and land valuation in their response, so this Action was introduced to the Group as "independent of tax reform and primarily as a potential tool of land policy". However #5 still regarded this as "fly[ing] kites" on LVT, something "Government does not [do]".

It became clear that great care in selecting the form of words for this 'support' for land valuation would be necessary, also that links to Actions 2 (continuous monitoring of datasets) and 6 (market analysis) would be vital in any Plan. Only if the 'national land valuation' was at a very crude scale could it proceed without official backing and relaxation on restrictions to access of VOA data. This was confirmed by the Oxfordshire LVT trial valuer (see chapter five).

Action 2: Government to accept publicly that, in principle, the monitoring of all key datasets should be continuous and not periodic.
The Group was less convinced that a Government would commit to this, although they ranked Relevance and Desirability at 4.25 and 4.5 respectively. One participant (#12) said this would not happen without Local Land Information Managers (see Action 10).

Assuming that property tax systems have been modernised (Action 11), of itself this Action presents no serious technical or financial problems. The low

Feasibility score (3.3) relates to political will and lack of joined-up thinking on GI as a whole (Issue 3/3). Some participants may have scored feasibility low because the word 'all' [datasets] was included in its full definition, which made it "absolutely not feasible on grounds of cost" (#18). This private sector expert in valuation was focused on just Value and Tax datasets, when stating:

> It will be more cost effective to forego small amounts of increments on any parcels which change hands pending a whole area review. Continuous monitoring would also destabilise the ability to forward plan, especially as values can go down as well as up.

However another property tax expert said that values already **are** continuously monitored, although "the analysis and/or publication of data varies" (#32). This seems to show that taxpayers are already paying for the considerable cost of continuous monitoring without receiving all the potential benefits.

There may also have been a misunderstanding about the relationship between synchronicity of datasets and of increased frequency of collection and/or publication of data, which does not have to lead to a loss of the "advantages of periodic 'snapshot' for many types of data, e.g. countrywide consistency, comparability and completeness" (#43). One senior local government officer (#7) involved with census discussions said he is "reasonably confident" that "continuous integrated population registers… will happen after the next Census". This indicates a positive 'direction of travel' by Government.

Action 3: Government's proposed "GI Panel" to report to a different Department than OS (preferably Cabinet Office).

The Group did not regard this putative Action, introduced in Round Three as a result of comments on PO4, as important. It was seen as reasonably achievable and has since happened (GI Panel, 2008), although it took four years and the reconstituted Panel (now the Location Panel) reports to Defra, not Cabinet Office (see chapter two, pp.78-9). The case for a change in responsibilities was put best by a land reform campaigner:

> Agree strongly that such an important initiative should be the responsibility of a non-trading part of Government that has no vested interests in the outcomes… (#40)

One expert in favour of change pointed to the way he perceives GI has been regarded hitherto by officials whom he personally deals with:-

> ODPM sees GI as a problem to be solved, not an opportunity to be grasped, and have been quite unable to understand a business model that isn't top down, centralised, and either public or private. (#7)

Members of the Group who had more than moderate GI policy knowledge tended to score this Action higher (in desirability and relevance) than did other participants.

Action 4: Private sector consortium offer to Government to fund national land valuation.

The next two Actions emanated from remarks in the preamble to PO3 in Round Two (Value Maps Market Analysis) where it proved controversial to have used the phrase 'private sector led' and to have called NLIS 'a successful model' PPP (Appx.G:6). However some responses to Round Two and discussions with key stakeholders justified pursuing this path: it would logically follow a positive Market Analysis (Action 6).

Whilst Action 4 scored quite respectably on Relevance (3.95), it came lowest of all on the other two dimensions, with an unfeasible 2.7 (and low SD). There were five links to PPP (Action 5), four to Action 6 (market analysis) and one each to Actions 1,9,12 & 13.

The simplest response given in Round Three was: "Government should do it" (#12). This was spelled out in other responses, some of which were less dismissive but still unsupportive. Their remarks (Appx.M:21-22) add emphasis to the problems around data ownership, liability and copyright introduced as Issue 5/5 at Round One.

However a public sector tax system manager was cautiously enthusiastic:

> This funding will naturally need to cover all additional costs inherent in such a proposal including those in the public sector. I suspect the value added would need to be quantified before such commitments are given. (#32)

Someone in local government involved with both private sector and government agency partners where a contract has had problems said:

> If I were in the private sector I would be nervous about offering this because of the cost, and lack of confidence that the Government would use it, or use it in a way that didn't alarm [the private sector]. They would need to see cast iron benefits and clear undertakings from Government not to see those benefits eroded. (#7)

In summary, lack of trust between parties could make this Action extremely difficult to carry out in present circumstances. The Group as a whole strongly disapproved of allowing the private sector to take the initiative in such a potentially sensitive area of public information. It therefore does not feature in an Action Plan.

Action 5: PPP Agreement to produce and maintain consistent all-embracing land value dataset.

This is a logical consequence of Action 4, compared to which it scored significantly higher, implying that negotiation of a PPP would prove more problematic than its operation. However despite the fact that this Action was explained, when introduced to the Group, as being an 'in principle agreement' only, the consensus was still that such a partnership would prove unfeasible. All but one comment was on balance against this proposal. The positive comment… "May help reassure the private sector about a potential market for this information" (#22) … presupposes that a market analysis is not carried out before an Agreement to produce the dataset is concluded, which seems unlikely.

It is hard to form a view on this Action until Government policy on the re-use of public sector information (PSI) is clarified (see chapter two pp.79-82) and a market analysis (Action 6) is completed. A balanced comment came from a regeneration finance expert with experience of PPP negotiations in other industries, who said:-

> This is more likely as a method because it won't involve as much direct government expenditure. However, any PPP project takes many years to structure and it means getting the relevant private sector stakeholders involved as well as convincing government that the whole project is worthwhile (#3).

Assuming the target date for completing a British Value Mapping implementation is 2015 (the Group's expectation), there is sufficient time to structure such a project as is proposed here. Government would need to make favourable statements early on and other Actions would meanwhile need to proceed. However the whole principle of private sector involvement made several respondents very uncomfortable (Appx.M:16-17).

The Group's high score on Relevance, combined with a low score on Feasibility and high SD on Desirability emphasise one of the most important, difficult and disputatious issues in the whole venture: that of copyright, licensing and ownership of PSI. This is addressed in some depth in the concluding chapter.

Action 6: Commissioning a UK Value Maps Market Analysis.
Although numbered after the preceding two Actions, this would almost certainly need to precede them chronologically. It scored second highest in both relevance and feasibility among the 14 Round Three Actions.

Some low scores on desirability were clearly associated with the mention of private sector involvement when introducing PO3 (Appx.G:6) and again in the Round Three form (Appx.M:36). Four out of the five respondents' comments intimated that Government and not the private sector should undertake British Value Mapping.

However a senior manager in the most relevant of public agencies highlights the 'chicken and egg' nature of proving the market exists:

> If there is genuinely a market for value maps this vital first step should not need to depend on government support. The deliverables must be clearly defined (#32).

His last sentence is important: ownership of certain deliverables from this study should remain with Government and for this to happen Government must play a key role. It would be hard to prove the market exists until the market analysis is done – and much of the 'market' might prove to be in the private sector.

Much of the information that needs to be considered in a value maps market analysis is owned by Government and many of the candidate applications will be public sector ones, if overseas experience is to be a guide (see chapter six). Someone with long experience of public policy in UK GI summarised the Group

views on the importance of this Action: “This would be critical to taking value mapping forward and achieving acceptance in both public and private sectors” (#7).

As with LVT, it may be necessary to introduce an ‘agreement in principle’ stage to a PPP, before even the Market Analysis goes ahead, to establish the necessary trust between partners. This was how Action 6 was introduced to the Delphi Group: “would identify costs as well as benefits, needs Government support but should be carried out by the private sector” (Appx.M:36). Nothing the Group said seems to change this.

Action 7: Appointing a Government Champion for GI, including Value Maps.

The equivalent PO(4) (see Table 4/4) scored quite low in Round Two. It attempted to combine several policy ideas and therefore attracted opposition for several reasons. In Round Three the linked issue of where responsibility for GI should sit within Government was made a separate Action (3). However some responses still confused the two: “Currently the CEO of the OS acts as Government advisor. A conflict of interests if ever I’ve seen one!” (#22); “Agree that the champion could be in Cabinet Office, even if provision of the service was elsewhere, e.g. OS” (#42).

One respondent close to GI policy matters, who scored this Action only ‘3’ in all dimensions, pointed out: “this complicates the Value Maps issue by involving other datasets” (#34).

Despite the high Group scores in all dimensions (all 4.2 – 4.3), there was wide disagreement. One who scored it only ‘1’ (except for feasibility at ‘5’) and who has experience in local government of working with other so-called Champions was highly sceptical: “…My fear is that this would be easy to do and simply create an illusion of something happening” (#31). The other two respondents active in local government were more positive. One of them, part of GI polity, explained:-

> This would help increase the profile of GI and hopefully provide the opportunity to raise it from being treated as a logistical problem to a policy issue and allow interested parties (private and public) to talk to Government rather than vested interests in Whitehall and its agencies. (#7)

It may be that the role of Champion is useful where a function or facility – here GI – is seen by policy makers as embryonic or peripheral: IT and *e-government* generally are now mainstream (Cabinet Office, 2005). The Group seemed to be saying that there needs to be careful definition of what a GI Champion would do.

Action 8: Completing the UK Land Registers

Over half the respondents to Round Three thought this was highly desirable in its own right but many thought it was of limited relevance to Value Mapping. There is little need to know the ownership of land in order to value it, unless a tax on owners is proposed. This point was explained by the only Scottish respondent:-

> … low score for relevance because unless the information is to be used as the basis for levying a tax or for any other universal application, [knowledge of] individual ownership is not necessary. Where such information is needed it can be obtained already. (#40).

Most countries that do value mapping (e.g. Denmark - see chapter six, pp.213-217) use a granularity that roughly equates to Census Output Area (30 to 40 households) or street 'block'. This disentangles the sensitive matter of ownership from valuation.

However the Group seemed to accept there is a link between taxing owners and value maps, giving Relevance a score of 4.05. There were few logical links specified by respondents between this Action and others: it is another Value Mapping 'root Action'.

The Desirability of this Action does not seem to be in question (it was top ranked) and whether Relevant to value mapping or not it could happen by the time the Delphi Group expect Britain to be value mapped (Hollis, 2004). That makes LVT more likely, putting a focus on links between LVT and value mapping.

Action 9: Separate data custodianship responsibilities from production and use, creating a State Enterprise Centre of Registers (SECR).

This Action was inspired by the author's visit to Lithuania (see chapter six), which has a successful SECR, also by the importance given by the Group and in the literature to PSI reuse issues. It attracted responses from only 18 of the

Group, of whom more than half commented. Scores were inconclusive and indicate a wide spread of views, also that some respondents misunderstood the idea, summarised in the Round Two analysis (Appx.H:37) as "the institutional expression of 'joined up e-government'". The author's somewhat over-simplified explanation to the Group for Round Three elicited comments on all three 'Advantages' claimed:-

> 1) overcomes conflicts of interest between producers, users and the wider public interest in key data sets; 2) concentrates expertise in information management; 3) maximises revenue to Exchequer from private sector users of public data.

Reasons to oppose such a move included these:

> Dilutes feedback from users to data aggregators. I think a central source with dual responsibility is better (#44).
> There would be weak motivation for updating records (#12).
> If the private sector funds data collection, maintenance, and portals, then the only role of Government is one of stewardship and regulation. How does the Exchequer benefit? (#22).

Most comprehensively, this was scored only '1' for Desirability by someone with considerable experience of European geo-data policy:-

> Unfortunately this might get into the hands of the lawyers as has happened in some other European countries. .... I am afraid the 'information management' would be overwhelmed by the bureaucracy. (#34)

Another, from local government but with relevant IT experience, gave a list of drawbacks with his low score (1,1,3):-

> Would be complex to set up. Government at any level does not have a good track record of entrepreneurship. Should be a Local Authority function. Charges can be specified for use to create a level playing field. This mechanism exists already for a number of functions such as searches. (#31)

A very experienced public sector data manager drew attention to problems with feasibility but scored the Action positively overall:

> This is but one possible solution. Another might be a virtual distributed database formed by linking the core datasets. The commentary seems blind

> to the additional costs of maintaining duplicate datasets. The core datasets are maintained for specific purposes the need for which will remain. (#32)

The wide range of views within the Group, lack of links to other Actions and immaturity of public debate on this subject resulted in the SECR idea being seen as unlikely to feature in any British Value Mapping Action Plan. However it may happen for a wider range of GI policy reasons and if so would affect the way in which any business model for Value Mapping is devised.

Action 10: Create network of Local Land Information Managers (LLIMs)

The Delphi Group rated the setting up of a network of GI professionals to maintain land-related datasets at a local level fairly low among Actions proposed. However high SDs in all three dimensions indicate little agreement. Several respondents had misunderstood the reference to SECR in the Draft Policy Plan remarks on LLIMs (Appx.H:38): the two ideas are not connected.

Respondents' comments were generally more positive than scores. Among the most thoughtful was this, from a local authority policy director:

> Any system will require change intelligence to maintain credibility. Local authorities would be obvious agents for this, as much change intelligence comes to them because of their statutory roles. … (#7)

A property tax administrator (#32) also said: "This is naturally a local authority function and there are many examples of statutory duties." However despite giving it a maximum score all round, #34 urged caution: "Locally based but MUST be centrally quality assured."

Were a LLIM network to exist, it would seem appropriate to give responsibility for collecting all attributes that relate to property values, rather than have LLIMs conduct the revaluations. It was not the intention to justify LLIMs purely on the grounds of value mapping, as one non-surveyor respondent (#31) seemed to think.

The issue of 'central versus local' (data management) is just one dimension of the wider debate on the business model for GI and one which is not critical to Value Mapping until other more vital policy barriers are removed.

Action 11: Re-engineer property tax IT systems to fully exploit GIS / CAMA.

Strong agreement on the desirability of Action 11 (second highest at 4.7) was shown by the low SD of 0.71. It was also scored fairly high on Relevance (4.1) and Feasibility (3.35).

The explanation given at the end of the Round Two analysis (Appx.H:38) linked this Action to completion of the NLPG in 2007, through the VOA-led Valuebill project (London Connects, 2007). Two respondents referred to this: #7 assumed the link was vital; #32 explicitly said it was not. Both ought to know. This indicates the degree of confusion and uncertainty around the future of address datasets, itself indicative of poor national leadership on GI policy. #32 (a tax administrator) went on to say: “GIS/CAMA will be fully exploited to the extent they support the requirements of the existing tax regime”.

Polygon/parcel-based value maps will require a considerably greater degree of VOA systems re-design, although a local politician who works as an IT consultant (#31) pointed out that such re-engineering has been done before, at very short notice: “Complex to do as a one-off but not impossible. Analogous to the introduction of Council tax”.

One respondent explicitly stated that this Action is intimately linked to tax reform: “Definitely feasible. But without tax reform? Unlikely!” (#22). However another respondent, managing a government project to improve property information flows, offered a more technical justification:- “Crucial for better quality of data” (#42). The experience of other countries (Denmark, parts of USA and Australia) is that use of GIS by the tax authorities does indeed produce better assessments (see chapter six).

What this shows is that a business case for value maps (or for LVT) needs to be made before re-engineering of VOA’s IT systems can be justified, However the planned early use of CAMA/GIS within VOA for current property taxes should help make that case (VOA, 2005).

Action 12: Allow tax-raising trials of LVT.

There was very wide disagreement within the Group on Action 12, shown by the highest SD for Desirability among all Actions. As this was the most ‘political’ Action of all, its low scores on desirability and relevance were not surprising. On

the other hand, there was clear agreement from respondents that it might be among the more feasible of policy Actions, scoring 3.4 with SD 0.97.

Anyone strongly opposed to LVT would regard trials as undesirable. Whereas known pro-LVT campaigners were excluded from the Delphi to remove bias, no such ban was imposed on LVT opponents. It was thought they would appreciate non-tax reasons to use Value Maps. By Round Three #22 (a GIS consultant) had already shown prejudice against LVT when asserting: “Fair Taxation should be based on realised wealth not unrealised assets, and definitely not location”.

Two others who gave the lowest score on Desirability offered more measured reasons. One cited the Poll Tax (Community Charge) experience: a tax trial imposed on Scotland, before England and Wales, by the UK Government. “If it cannot be designed right, so that an experiment is not needed, it should not be done” (#44). The other comment, from a senior tax administrator, was:

> The case for LVT has yet to be substantiated and it would be premature to implement such a regime without a critical analysis of the pilot studies, which have been superficial at best (#32).

This comment is somewhat ironic. The ‘pilot studies’ on LVT referred to (see chapter five) have all been unavoidably ‘superficial’, because researchers were denied access to the official datasets, as were McGill and Plimmer (2004). Proper ‘pilots’ are invariably carried out by Government itself, specifically in order to establish whether a case exists for a change of policy.

Scotland, with its local Boards of Assessors, would constitutionally and technically have less difficulty than England and Wales in accommodating tax-raising trials. However as this local government policy person from the south east implied, the politics of LVT trails could be easier in his Region:

> A more likely route ….. would be the proposition put forward by the LGA to seek to capture the value added from development to fund infrastructure on a bigger scale than S106 etc. This may come about if the Government accepts that infrastructure really is needed to go alongside house building, especially in the South East. (#7)

As a result of comments, Action 12 was split into four parts in the final Action Plan, recognising that more ‘desk studies’ need to be done before a tax-raising

trial could be justified. An academic who appeared to incline towards support of LVT as the Delphi progressed put it best:

> It is highly relevant, so that there is enough evidence to support a roll-out, but it is clear from the Delphi analysis that this is going to be a contested and politically sensitive issue; it may be best to exhaust desk studies at this stage. (#50)

A local government GIS official, views on LVT unknown, summed up the policy research case for tax-raising trials: “Better to have trials to test new procedures and customer reaction before national implementations” (#43).

Action 13: Revive National Land Use Database (NLUD) in accordance with original purpose.

All Action 13 Group scores were fairly high and exhibited a low SD, indicating a high level of agreement that NLUD is important in its own right, relevant to Value Maps and feasible. It was regarded as marginally more feasible and relevant than re-engineering property tax IT systems (Action 11), but significantly not as desirable in its own right. However the views of the Group on certain related Issues appear, unusually in this Delphi, to be at odds with their views on the Action itself. In Table 4/2 Action 13 appears as ‘relevant and feasible’, whereas Action 11 is ‘relevant but not feasible’. Yet both Actions are related to Issue 3.2 (completing and maintaining related data sets) which the Group scored low in feasibility. Action 13 (NLUD) is also connected to Issue 2.2 (maintaining currency of site values), which is another Issue scored poorly by the Group: without accurate and complete land use (HABU) information, site values cannot be kept current (see page 75, chapter two). In the Stage Two Analysis (Appx.H:38), it was stated that NLUD should include HABU, which could be “assumed to be same as actual [use] unless proved otherwise”.

#7 alluded to the unequal relationship between central government and those bodies which it expects to do most of the work in data collection: “This would only work if Whitehall treated local authorities as partners not suppliers…”.

Two who gave this Action maximum score in all dimensions expanded on their reasons: “Actually, I cannot see how you can separate land valuation from use” (#22); and “To cover the whole of the country even if ‘coarser’ in rural areas” (#34). This latter comment hints at the importance of an appropriate level of

detail for defining the nature and extent of land uses, an issue that was also mentioned by someone who scored this Action much lower in Relevance (2) and Feasibility (3):-

> The HABU is much more speculative than existing use and is highly dependent on the extents of the properties considered. The classification will be too general for fair taxation at individual property level. (#32)

As #7 implied, this is a task much more easily carried out locally than by a national agency. The motivation for the local authorities engaged in the Oxfordshire LVT study to polygonise land parcels, at least at officer level, was to improve land use understanding not to assist property tax reform. NLUD ought to be capable of being implemented in the timeframe anticipated by the Delphi Group without a Value Mapping justification.

Action 14: Extend property taxes to all urban land.

This Action began (PO7) with a suggestion from a research colleague (Plimmer, 2004) that the HABU principle could be adopted within the current property tax system without as much political or technical difficulty as 'pure' LVT and without requiring 'land value' to be derived. She cited the Urban Task Force report (Rogers, 1999) and North American experience of taxes levied on owners. The switch to an ownership- and HABU-based property tax would encompass vacant and derelict land and buildings. Plimmer (2004) suggested: "….remove the requirement for 'beneficial occupation' from the tenets of rateable occupation - i.e. land and buildings currently need to be capable of commanding a rent to be rateable."

This tax-led proposed Action did not command support from those in the Delphi who thought Value Maps were valuable in their own right. It was also criticised in the author's Stage 2 Commentary (Appx.H:19-21) for being divorced from land value, and by land policy specialists for perpetuating the artificial urban/rural divide instead of "rural-urban linkages" (#12). Round Three responses (after the qualifying remark "especially vacant land and derelict buildings" had been removed) remained unsupportive and offered no Group consensus.

Any radical reform of property taxes, not necessarily requiring land values to be assessed, would help achieve Value Mapping: the latter enables a wide range

of property tax reforms (including Plimmer's) but the Plimmer proposal does not enable Value Mapping.

Actions not presented to Delphi Group

Three POs were suggested by Delphi participants in their Round Two responses but were not included in Round Three:

- "Lobby for political parties to make an expression of intent [on LVT] in their next manifesto." (#22)
- "To complete land registration by a specified date." (#40)
- "Policies to safeguard property owners from fluctuations in property values causing budgetary difficulties." (#42)

The reasons for not including these are given in the Round Two analysis report (Appx.H:21-22).

4.6 Action Plan for British Value Mapping

This section analyses what the Delphi Group thought of the draft and final Action Plans presented to them during Round Three and at the final workshop. It generally ignores developments that occurred too late for the Delphi, which may impinge on any Plan and which are discussed in the concluding chapter.

The Action Plan is bifurcated into 'market led' and 'tax reform led' strands, in recognition of the fact that a limited Value Mapping implementation is possible without any involvement of tax policy. This is despite the literature showing that elsewhere in the world where Value Mapping exists across an entire legislature, it is produced at a large scale and in association with property tax.

In Britain hitherto there have been three ranges of scales at which Value Mapping has been used, none of them in relation to property tax, other than by the author and associates (Vickers, 2003; Mitchell and Vickers, 2004; Godden *et al*, 2005). These scales are illustrated in Figure 4/2 and described further in chapter five.

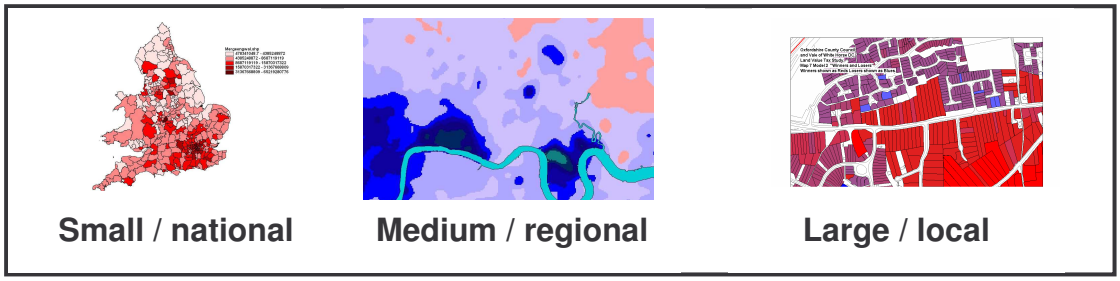

Figure 4/2: Scales of British Value Mapping

The question which this section poses, with the help of Delphi Group and other views, is: can a realistic Action Plan for all scales of British Value Mapping be set out in the absence of any move towards a property tax regime that requires a national land valuation? That question is answered in the final chapter.

The 'Logic Diagram' at Figure 4/3 is based on the final Delphi document issued to participants at the July 2005 workshop (Appx.O:10), itself based on the Action Plan presented in the Round Three Analysis (Appx.M:25). It includes all Actions presented to the Delphi Group in Round Three and discussed in the previous section (except Action 4), linking them in accordance with the Group's suggestions. Actions are given neither duration nor resource/cost: the diagram merely shows a possible logical sequence of interconnected events that might lead to completion of British Value Mapping (the terminal box).

Two Actions are split: Action 8 (land registration) into 8a (decision to authorise retrospective registration of remaining land rights) and 8b (completion of land registration); Action 12 into four stages of progressing a possible move towards full UK LVT.

The diagram divides into two halves: the top half is the ‘market-led’ series of Actions that can only lead to a small or possibly medium scale Value Mapping programme involving no radical change in property taxation. Here the bold lines indicating ‘essential’ actions are in grey, indicating that mapping cannot be at a scale large enough to support LVT. This is because the necessary data to support such large-scale mapping (land ownership parcel definitions and tax assessments) would neither be complete nor publicly available.

The bottom half is a ‘tax-reform-led’ series of Actions, incorporating full land registration and LVT before a detailed parcel-based Value Mapping programme can be fully implemented (the Value Mapping being part of the LVT system). This series of Actions is shown in solid thick black lines. For the resulting maps to have maximum use besides tax purposes, this Plan would ideally need to be complemented by the market-led series of Actions. Because LVT is based on HABU, it is presumed that a revived NLUD (Action 13) would be essential and would need to include not just actual land use but HABU for each site. Hence Action 13 is shown in solid black, as part of a tax-reform led Action Plan.

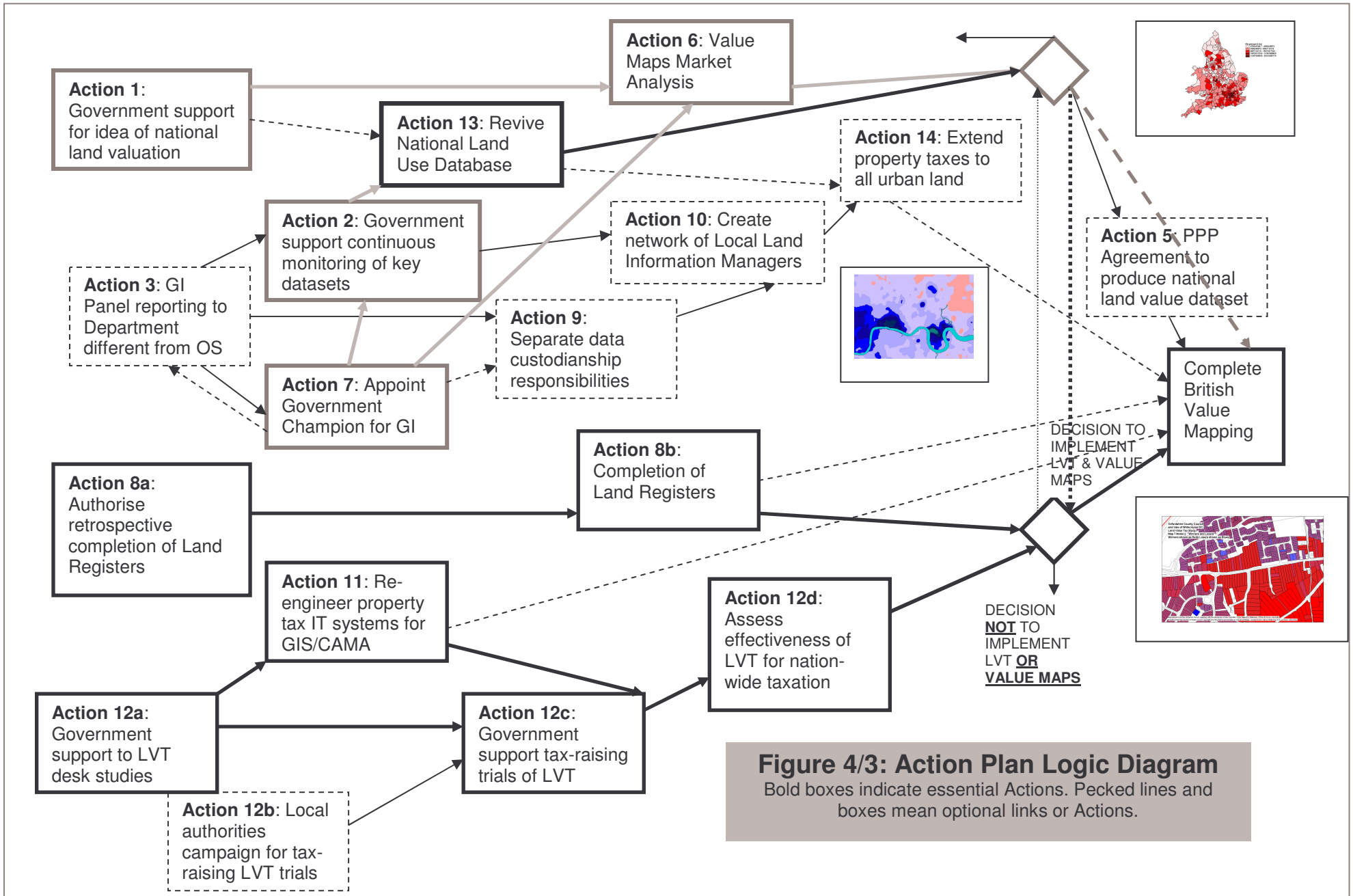

Figure 4/3: Action Plan Logic Diagram

Bold boxes indicate essential Actions. Pecked lines and boxes mean optional links or Actions.

The two ‘diamonds’ in Figure 4/3 are key decision points: one where a Value Maps Market Analysis has been concluded; the other when both land registration and analysis of tax-raising trials of LVT are complete. The arrows connecting them imply that a decision not to proceed with LVT could trigger a decision on a market-led Value Mapping programme, also that the non-tax uses for Value Maps considered in the Market Analysis ought to inform the decision on how to proceed with funding LVT implementation. Dotted arrows connecting 8b, 11 and 14 to the final “Complete British Value Mapping” box indicate that a **decision** to proceed **could** take place after these Actions, whereas the **likely** ‘decision points’ are after Actions 6 and 12d, for ‘market-led’ and ‘tax-reform-led’ implementations respectively.

In the light of the analysis in the previous section (Table 4/2, p.152), minor changes have been made to the Action Plan Logic Diagram presented to the July 2005 Workshop (Appx.O:10). They affect Actions 2, 5 and 12.

- Action 2 (Government support continuous monitoring of key datasets), portrayed to the Delphi workshop as non-essential, is shown as essential (in bold) despite being seen in 2005 as not very feasible. This was influenced by the success of the NLPG since then (Sayce *et al*, 2008:12) especially by the decision in June 2008 to create a Coordinated Online Record of Electors (CORE) from the already continuously monitored local electoral registers (Ministry of Justice, 2008), using NLPG.
- Action 5 (PPP Agreement to implement Value Mapping) comes at the very end of the Action Plan. It was previously shown as optional. By the time a Value Maps Market Analysis is done, such an Agreement will either have become irrelevant (because there is no market for UK Value Maps) or its feasibility will have been greatly enhanced by a positive market analysis. In the second scenario, the private sector would have shown there is a market for even crude maps and would therefore be expected to actively seek an Agreement with Government to help fund land valuation for taxation, from which much more useful and valuable maps will be achieved. It is left open as to whether Government takes up such an offer, because a positive LVT decision

will result in Value Maps anyway: only the cost to taxpayers is affected. Action 5 should be seen as conditional: neither essential nor optional.

- Action 12 (tax-raising LVT trials) having been split into four parts, the relatively low relevance as well as low feasibility given to it by the Group is presumed to pass on to Action 12c (the politically sensitive decision to allow such trials). One Delphi Group member (#50) said it should not be difficult politically for Government to support LVT desk studies (Action 12a), which might be expected to lead to a review (if not yet actual re-engineering) of property tax IT systems. Action 12b is not essential for a decision on nation-wide LVT.

In addition, Action 9 could be regarded as optional, since all the Actions that follow it are optional.

For clarity, the critical sequences of Actions for both small- and large-scale of Value Mapping are highlighted with bold lines. What this shows is that the Delphi Group felt that only by progressing to a Market Analysis could **any** Value Mapping implementation be assured. For any **large-scale** (i.e. tax-related) Value Mapping to happen depends upon completion of Land Registers and positive outcome of LVT trials.

A market analysis would establish the costs and benefits of value mapping Britain more accurately than was possible in this research. A first-order estimate (Vickers, 2005a; also Appx.N:2-4) was produced immediately after Delphi Round Three, using an earlier version of Figure 4/3 (Appx.N:5) and information obtained from various sources – mainly the Oxfordshire LVT trial (Vickers, 2006) - during the Delphi process. The summary is in Table 4/6. Benefits are explored in the next section of this chapter.

A more accurate estimate of the costs and benefits of LVT and of Value Mapping also cannot be made until at least some two years after decisions to support all three of: land valuation; completion of land registers; and LVT desk studies (Actions 1, 8a and 12a).

There is a very large difference between the costs of a crude market-led Plan and a tax-reform-led Plan: several orders of magnitude (£2 million and over £200 million cost respectively, see Table 4/6). However there is an equally

large difference in the potential benefits, with the former being little more than a demonstrator or research tool to enable stakeholders to conceptualise and market the idea of large-scale tax-related Value Mapping.

Implementation of a large-scale, tax-related, parcel-based value mapping programme would introduce problems of burden-sharing and design of a suitable business model that satisfied all partner agencies might be difficult. These issues are covered in more detail in the final chapter. The polity environment described in chapter two is very uncertain: many changes have occurred since Delphi Round Three suggested the above Action Plan.

	Costs £m	**Benefits £m**	**Timescale (yrs)**
Market Led / Crude	2.3	5-10	1.5
Tax Reform Led	213+	330+	5-9

Table 4/6: Indicative Costs and Benefits of British Value Mapping
See Appendix N (prepared in 2005) for breakdown.

The Delphi Group entered the Process with a collective view that Britain would be value mapped by 2015 (Appx.B:8). If by this was meant a crude market-led implementation without tax reform or even completion of land registration, then this is clearly still feasible and realistic. Only some £20 million of the £200+ million cost of a Tax Reform-led Plan would be required in the first half of the five to nine year period before benefits should become evident (see Appx.N). The problem with both the market-led and tax-reform-led Action Plans is that the early costs fall almost entirely on the public purse, whereas the long-term benefits are largely in the private sector and harder to calculate.

The final section of this chapter looks at what the Delphi Group thought about the roles of various interest groups in either enabling or benefiting from British Value Mapping and hence of helping to see the Action Plan analysed here implemented.

4.7 Stakeholders as enablers and beneficiaries

In the previous chapter, the reasoning behind using stakeholder groups as a basis for selecting Delphi Group members was explained (pp.96-8). The specific groups and a description of their "reasons for likely interest in Value Maps" were presented before the Group formed in a background paper uploaded to the project website (Appx.C:3). This also introduced the concept of "enabling" and "beneficiary" stakeholder groups.

As a check on how Delphi participants themselves saw stakeholder groups influencing the development of Value Mapping in Britain, in Round Three they were asked to rank each group twice, according to both its enabling and beneficiary score. This section discusses what the Group's views tell us about the prospects for Value Mapping.

Estimating monetary value of possible tangible benefits from this complex and still hypothetical project is difficult for all concerned. Theoretical generic non-cash benefits were presented to the FIG participants, when launching the overseas strand of this research (see chapter six), as…

> derived partly from evidence in a few countries that use them already but mainly from comments received from representative UK stakeholders in an ongoing Delphi exercise, supplemented by the author's own thoughts following discussions with others (Appx.K:18-19).

Comments on possible benefits obtained from Delphi participants in the first two Rounds were inevitably largely qualitative and hypothetical, because hardly any members of the Group had experience of using Value Maps or of seeing them used. It had been hoped that the feedback from the FIG Survey in summer 2004 would independently inform the Delphi Group in Round Three. However responses from FIG members were insufficient for any further enlightenment of the British Delphi participants. Therefore the questionnaire (Appx.I:5) simply listed the ten groups and asked for scores.

The use of this part of the Policy Delphi was also limited by there being no British demonstrator Value Maps available to show the Group, equivalent to those produced overseas. However the sharing of views among their peers in the Delphi Process, representing a broad spectrum of potential British users,

should have helped them become better informed about the potential utility of Value Maps to all stakeholders than at the start of the Process.

The Delphi Group ranking scores are presented in Table 4/7 below. The stakeholder groups are then each briefly discussed, both as potential beneficiaries and enablers, in the order by which the Delphi Group scored them as beneficiaries. To the extent that benefits are tangible and realised by the stakeholders themselves, a high beneficiary score also indicates an ability to enable Value Mapping in a market-led scenario to happen.

In the paper uploaded to the website before the July 2004 FIG mailing, the stakeholder groups were introduced thus (Appx.K:6):-

> … each interest group alone almost certainly could not justify development of value maps in any jurisdiction. However taken together, it seems that … in some countries there arises a combination of circumstances and stakeholder groups that act together to ensure value maps are developed. These categories of Value Map Stakeholder … exist to some extent in every country:- “Property and GI data providers; software suppliers and IT consultants; …[etc. see Table 4/7]…” ….Each of these groups will exhibit different characteristics in each country. For example in one country the tax administration system might be very mature but based on outdated technology, with a largely ageing workforce. In another, there may be very few qualified assessors but a vigorous property market and low wage costs for IT specialists. Other things being equal, the latter country is more likely to adopt CAMA, from which value maps would be a by-product.

The stakeholder group list was (and is still) not claimed to be definitive: no such list has been found in the literature. The indicator letter in brackets after each sub-heading is that used throughout the Delphi Process to denote each group.

The discussion following uses quotes and summarises views, where appropriate, from Delphi and FIG respondents as well as from participants in the workshop, seminars and conferences (see chapter five) at which similar questionnaires were offered.

Stakeholder Group	Beneficiary			Enabler		
[Code letter in **B**old]	Score	**Rank**	*SD*	Score	**Rank**	*SD*
Property and geographic **D**ata suppliers	6.1	**7**	*2.4*	6.8	**2**	*3.2*
Software suppliers & IT consultants	4.6	**10**	*2.68*	6.6	**3**	*2.09*
Property **T**ax administrators	7.1	**2=**	*3.1*	6.5	**4=**	*2.9*
Urban planners (and developers)	6.9	**4**	*2.5*	6.5	**4=**	*2.0*
National *e-government* project sponsors	6.2	**5=**	*2.6*	6.5	**4=**	*3.0*
Politicians and campaign groups	5.2	**9**	*2.9*	7.3	**1**	*3.3*
Property **I**nvestors (and owners)	7.1	**2=**	*3.23*	4.5	**9**	*2.8*
Insurers, **R**isk assessors and underwriters	7.3	**1**	*2.1*	5.6	**7**	*2.0*
Entrepreneurial **B**usiness (property occupiers)	6.2	**5=**	*2.7*	5.4	**8**	*2.9*
Real **E**state agencies (property intermediaries)	6.0	**8**	*2.5*	4.1	**10**	*2.5*

Table 4/7: Stakeholder Group Ranking, Beneficiaries & Enablers

From Appx.M. **Note**: There were only 19 respondents to this part of Round Three. They were not asked "Will Stakeholder Category 'n' greatly benefit from (or enable) value maps?" but "Will Category 'n' benefit from (or enable) value maps more/less than other Categories?" 'Scores' are therefore relative, not absolute. 'SD' = 'standard deviation', i.e. an indication of the spread of ranking scores given by the Group. 'Rank' here is the order of 'score', i.e. the overall unweighted average 'rank' from the 19 respondents.

Insurers, risk assessors and underwriters (R)

There was broad agreement among the Delphi Group that the insurance industry was a major potential beneficiary of UK Value Mapping.

In an interview, the one Delphi participant (#38) who worked in the industry said that competition between insurance companies was driving the investment which one or two large firms were making in height and flood mapping, for example. If a company has better knowledge about geographical variations in the risk of flooding than its competitors, it can assess the risk to particular properties more accurately and offer more realistic premiums. Flood risk can vary greatly over a short distance. The interviewee stated that when a

version of her company's underlying database was sold to the Environment Agency (EA) in 2004 and put in the public domain, this knowledge was quickly reflected in the market value of property close to mapped flood risk boundaries. Hence flood maps transmuted into value maps. Because the company now claims to have flood risk data at the individual property level - whereas most of its competitors have a much cruder basis for assessing risk and premium - it can sell insurance very competitively in locations where other firms are overpricing their products and can target its sales force much more effectively. As #42 put it: "If valuation is clearer then this group has less risk in making quotations".

According to #38, her company had originally suggested that EA should provide flood mapping data for the insurance industry but EA had failed to see the link between height/stream-flow data and insurance. She was the only Delphi respondent to rank the insurance industry higher as 'enabler' than as 'beneficiary'. At interview, she said that media coverage achieved by the company for its flood modelling project in one year was estimated by their marketing department to be worth £1.8 million. This had not been part of the business case for flood mapping, which was to reduce the company's exposure to risk.

Estimating that more than two thirds of UK homeowners and most of the country's high-value commercial property (e.g. all Central London) could potentially benefit from flood mapping leading to lower insurance premiums, #38 suggested benefits to insurance companies and their clients of the order of £30m-£100m per year from just flood mapping, which is only one kind of risk that directly affects property values.

Countries that responded to the FIG survey did not give the insurance industry as an important stakeholder, possibly because their land happens to be far less valuable, both in absolute terms and as a proportion of property value. Kenney *et al* (2006:vii) also suggest differences between UK and elsewhere in the way predictable risks to property are dealt with by insurance companies, which may explain the low score. UK is one of the few countries where Government relies mainly on private insurance to protect the public purse from exposure to such risks. However responses from attendees at the UK

demonstrations conducted by the researcher (referred to collectively hereafter as ‘non-Delphi responses’) broadly agreed with the Delphi Group that insurers would ‘greatly benefit’ from Value Maps.

Property Investors (and owners) (I)

This stakeholder group was ranked just below insurance by the Delphi Group and the benefits are related. At every stage in the property development cycle the potential value-in-use of land has to be balanced against the liability for costs incurred in development and maintenance (including insurance costs). However the two lowest rankings for Property Investors as beneficiaries came from its own Delphi participants. There are at least two possible reasons:

1) These particular individuals both self-scored ‘low’ on spatial analysis and geodata policy expertise, hence found it hard to make a judgement on the matter.
2) Commercial property is well covered by insurance and therefore not seen by owners and investors as vulnerable to value fluctuations, unless it is ‘ripe for redevelopment’. Several Delphi respondents working in this area commented that it is difficult to confidently assess benefits from Value Mapping for commercial property. #22 commented that the frequency of valuation and timeliness of publication will be important.

Non-Delphi UK respondents agreed that investors would be significant beneficiaries. Overseas countries that responded to the FIG survey, especially those from central and eastern Europe, ranked investors as significant beneficiaries of Value Mapping, possibly because of the high volume and value growth potential and corresponding high risk associated with property investment there.

Property tax administrators (T)

This group should be much more focused on benefits of good value data because it lies at the heart of their business. However, as with Investors, the two Delphi participants from this group who responded ranked their peers significantly lower than did the Group as a whole. One respondent from a different industry summed up a possible reason: “institutionally obvious, though individuals will resist” (#34)*;* another commented “would make their life

easier but would require less of them" (#31). Senior administrators who set tax policy might take a broader view, taking account of the market value of their tax assessment data.

There was a wider spread of beneficiary ranking scores from the Delphi Group regarding this group than for any other. No pattern was apparent. The non-Delphi UK responses were more consistently in agreement that Value Maps would benefit tax administrators. Overseas respondents' experience of Value Mapping would almost exclusively be as an adjunct to property tax modernisation and they scored this group very high.

Urban planners and developers (P)

This is a disparate group, including both public and private sector professionals and academics. Only one of its seven representatives in the Delphi worked at the time in the public sector. Only four members of the planning profession responded and none offered comments: two gave scores much lower than the Delphi Group as a whole gave.

A local councillor (#31) commented that Value Mapping "Would change planning from enabling to ensuring!" yet ranked this group at only '2', whereas an academic (#50) ranked planners top at '10'. Howes seems to agree: in the conclusion to his research, stating "a value map … enables the planner, at an early stage, to make relative comparisons for land and property acquisition proposals" (Howes, 1980:134).

UK non-Delphi respondents included several planners who were strongly of the view that this group would benefit. Scores given by overseas FIG respondents also indicated agreement.

National *e-government* project sponsors (N)

One IT consultant in local government, with experience of how such projects have developed (#31), scored this category top on both counts yet said: "These people are irrelevant to progress don't encourage them see them as a potential saving." Only one Delphi respondent claimed to belong to this group, scoring it higher than average on 'enabling' but lower on 'benefiting'.

Two experts in GI policy seemed more sceptical: "Would only benefit if seen as successful national project and this will be a long way down the line" (#34);

"I think these will be disappearing anyway" (#42). It is arguable that 'N-projects' are supposed to "disappear": they only exist to catalyse a market through technical change, then either die or morph into 'Data Supplier' (as with NLIS and NLPG – see below).

The non-Delphi respondents offered widely differing views about this group, several thinking they would receive hardly any benefit and only one giving maximum score. Without explaining why, none of the FIG respondents rated them as significant beneficiaries.

Entrepreneurial Business (property occupiers) (B)

Based on their self-selected initial Delphi Group stakeholding, there was just one member of the 'Business' category (#34) who responded. However all of the Delphi Group were most likely to be well able to relate to this group, as 'business occupiers' of property for much of their working lives.

#34 commented: "should improve the marketplace". If the commercial property market operates more efficiently as a result of Value Maps, then business occupiers should obtain better rental deals and have more income to devote to their core business.

Despite having less exposure to the arguments than the Delphi Group, non-Delphi UK respondents thought businesses would be significant beneficiaries of Value Mapping. FIG respondents were moderately impressed by the arguments presented to them (Appx.K:19), which drew upon the author's 'Pilot Smart Tax' research with Liverpool businesses (Vickers, 2003).

Property and geographic data suppliers (D)

This category scored high as Enablers, although two Delphi respondents gave them the lowest score for both 'b' and 'e'. There was broad agreement that they score relatively low as beneficiaries: they were the only category which nobody gave top score to on this count. Neither of the original Delphi Group people working for data suppliers participated in Round Three. The only score from a data supplier was from a non-Delphi OS employee who thought data suppliers would benefit little. One Delphi respondent, from a local government and IT background, said: "Some of their reason for being diminishes" (#42).

FIG respondents were split, which may reflect different institutional and market arrangements: whereas Sweden and Lithuania (scoring them high) have consciously promoted wider uses of geodata through their PSIHs (see chapter six), it is not known whether the other two Central European respondents' countries have begun any similar data market reforms.

Based on the combination of scores and comments, it is concluded that the Delphi Group regarded data suppliers as being key players in achieving value mapping but just as likely to be 'disable' as enable efforts, being themselves unlikely to benefit greatly.

Real estate agencies (property intermediaries) (E)

This group includes residential estate agents and commercial property advisers and was a surrogate for the general public who rely on them for professional advice on property matters.

The group was not represented in the Delphi but #42 expressed the situation thus: "Some of their reason for being diminishes. People and businesses will know what their property is worth without asking an estate agent." #42 went on to comment: "reflected in 'tales from Lucas County'" referring to arguably the world's leading example of Value Mapping from the USA (see chapter six, pp.224-7) which he knew of already (German, 2003).

The Delphi Group view was that any benefits to property intermediaries were long term and that meanwhile they might be obstructive to change until there had been extensive field trials in the UK.

Ten members of this stakeholder group responded to one or other of the non-Delphi questionnaires and all but one said they would benefit. However they were a self-selecting small minority of those who could have responded, indicating considerable disinterest in the matter. European FIG respondents seemed hopeful that their countries' modernising property intermediaries would benefit.

Politicians and campaign groups (P)

LVT campaigners worldwide comprise a broad spectrum of political positions, from the libertarian right to socialists and greens. Well represented among non-Delphi respondents and Delphi 'observers', they clearly supported radical

property tax reform, believing it will benefit from Value Maps. ‘Benefits’ are generally not of the financial kind for such campaigners.

However the Delphi participants in this category (including one pro-LVT politician) and the FIG respondents ranked politicians in general low as Value Mapping beneficiaries. Some insights as to why were provided, e.g. “Cannot start without them, but how do they benefit? Only if we can provide a convincing case to be sold to the electorate” (#34).

An academic, by now seemingly favouring LVT (#50), found that the Delphi Process confirmed his initial view that “continuous lobbying from campaign groups” is “the most important factor to enable value maps”. A former local government officer (#42) although not ranking politicians high as beneficiaries nevertheless said they “will be able to claim more efficient government”.

The conclusion is that politicians are key enablers but insignificant beneficiaries.

Software suppliers and IT consultants (S)

This group was seen – particularly by its own members and by politicians not belonging to the Delphi - to benefit least of all: “I don’t see a huge opportunity here”, said one (#22). Other similar reasons were given: “Difficult to rate as it creates a benefit to this group but it’s akin to a one-off rather than ongoing and also removes revenues from existing products” (#31); “Value maps are a political issue, rather than a technical one, so s/w suppliers are least likely to benefit from the process” (#50).

In terms of enabling value mapping to be implemented, they were scored consistently high but since the technical problems to solve are fairly minor, it is geo-data **policy** or **IS** consultants, not **software** (IT) specialists, who are key enablers and minor beneficiaries. FIG respondents generally agreed.

Conclusion

It was difficult for the Delphi participants to reach an informed view as to where any benefits might be realised from British Value Maps, because the Process had not demonstrated to them what they would look like or be capable of doing. Apart from the Insurance industry, where one insider provided evidence of significant benefits, no figures were made available and

the ranking scores were generally well spread. Useful comments provided some indications of potential benefits but members of almost every stakeholder group in the Delphi were less optimistic about benefits to their own colleagues than they were to other groups. This shows an understandable caution but means that, for any useful assessment of benefits of British Value Mapping it is necessary to look at experience abroad for guidance. This is done in Chapter 6.

Similarly, the scores on enabling are inconclusive. If there is any pattern, it is that non-financial beneficiaries (tax administrators and planners) are seen as enablers, whereas those groups who ought to be able to put a monetary value on benefits (insurers and investors) are not. This is because the benefits are more obscure to those who operate in these major beneficiary groups: they are unlikely to have the knowledge of what Value Mapping can do and GI is not seen as core to their business. Groups that are not seen as beneficiaries (N-project sponsors, data and software suppliers, politicians) are powerful potential enablers but could also be seen as blocking agents in the current British polity context.

4.8 The Delphi Process reviewed

Here the participants' views on the Delphi Process are briefly summarised. Conclusions on how the Policy Delphi contributed to answering the research questions are drawn in the final chapter.

Part III of the Round Three questionnaire (Appx.I:6) asked several questions designed to enable the Process to be evaluated. The responses to Part III were summarized in the Round Three report (Appx.M:33-34).

Eighteen of the 20 Round Three respondents answered the question "Do you think this is an appropriate method of research for this subject?" and all said 'Yes'. Seven offered comments "on this particular Delphi Process" (Q4) and most alluded to the time involved: both overall elapsed time between Rounds One and Three and the time needed to answer each Round "especially when it has little direct relevance to one's work" (#3). This is more a criticism of the method in general than of this instance of its use: any 'future study' requires participants to suspend their focus on current practices. #3 called it "an intellectual exercise".

The only critical comment (#32) was "[I] felt that the researcher tends to ignore the challenges posed by critical comments". However another (#22) began the Process "rather sceptical and suspicious that the researcher would use the process to reinforce preconceived ideas. In practice, I think it has worked rather well". #50, an academic, said it was "very well organized" and found it "placed less demand on my time than I envisaged", continuing: "the analysis reports were pitched at the right level with appropriate reference to our comments and made us feel part of the research process. I certainly feel I learned a lot from peers in the field." This seems to endorse the method and its use here.

With the benefit of hindsight, the Delphi Process could have been improved in a number of ways, although participants seemed overwhelmingly content with it and agreed it was rich in insightful comments on most aspects of the subject matter.