

Practical Evaluation Tools for Urban Sustainability (PETUS)

PETUS Project Conference
Thursday 15th and 16th September 2005
Cardiff, Wales

Copies of all presentations and the workshop briefing are available on the PETUS project website <http://www.petusproject.com/> or from Cardiff.

Thursday 15th September 2005

Session 1 – Welcome and background of the PETUS project

Chair: Professor Phil Jones, Cardiff University

Key note speech

Sue Essex, Welsh Assembly Minister

Cabinet Minister for Finance, Local Government and Public Services

Professor Phil Jones

Cardiff University and Coordinator of the PETUS project

Introduction to PETUS project – background, research and outcomes

Viorel Vulturescu

EU Project Officer

EU Funding Programmes

Questions

1 Sue Essex spoke about a Code for Sustainability, the EU is discussing whether to produce an official formal urban declaration at the urban level, what is your opinion of this?

Viorel Vulturescu: *It would be very useful to have an urban statement.*

2 Does PETUS have an over emphasis on architecture? [The PETUS conference was held at the Welsh School of Architecture].

Prof. Phil Jones: *All partners on the project are from a variety of sectors and the case studies focus on urban infrastructure rather than buildings.*

In addition, while PETUS's name relates to urban sustainability, there is actually no reason why PETUS cannot be applied to rural areas as well and is therefore applicable to all of Wales.

3 How applicable is PETUS to practitioners and to end users rather than researchers?

Prof. Phil Jones: *PETUS collected 60 case studies and while it wasn't originally intended to be web based, this makes it more practical and accessible. In addition the website will be accompanied by a handbook on the PETUS project and web.*

PETUS has been in contact with practitioners throughout the project - every PETUS project meeting has involved meeting end users in the different partner countries to hear what is happening in each country in practice. In

meetings with Welsh end users PETUS was found to be of practical use. PETUS is in the final stages of testing in all countries with a variety of end users– this will provide end users with opportunities to comment and provide feedback on PETUS.

The aim of PETUS is that it is used by the end user, but it is also being used in training and for educational purposes.

4 What happens to PETUS when the project ends?

Prof. Phil Jones: A commitment has been made that the website will be maintained for two years after the projects end. However, the project partners intend to apply for further EU funding to expand PETUS, possibly into other sectors such as material use and health, as well as relating PETUS to national legislation and translating PETUS into other European languages.

5 How have local authorities been involved and how are you arranging for Local Authorities to hear about PETUS?

Prof. Phil Jones: Local authorities have been involved in PETUS at a variety of levels. About half of case studies have involved local authority or public sector projects. Steve Dodsworth, from SCALA (Serving Construction & Architecture in Local Authorities) has spread the word about PETUS in local authorities in Wales, Scotland and England.

Steve Dodsworth: It is very hard to make contact with local authorities and so we are using the contacts we have in local authorities to talk about PETUS, and Prof. Jones has spoken at a workshop we organised in Edinburgh and will talk at further events in York and Cardiff.

Session 2 – Introduction to sustainability in urban infrastructure

Chair: Professor Phil Jones, Cardiff University

This session will provide an overview of the incorporation of environmental, social and economic aspects of sustainability into urban infrastructure programmes, plans and projects. It will provide a summary of the types of policies, experiences and problems that are being applied in different European situations.

Presentation 1 – **Elena Dimitrova** [change in programme]

University of Architecture, Civil Engineering and Geodesy, Bulgaria

Testing PETUS: expectations and outcomes of the “theory-practice” dialogue on urban sustainability

Questions

1 People are disparaging about more theoretical research, but case studies provide piecemeal evidence.

Elena Dimitrova: Theories are a result of time spent thinking and discussing, which is contrasted by practice, which doesn't have time to think. It is not possible to wait for research to show how to do things; things have to be done in practice. The matrix provides a forum for a projects background to be identified, and asking people to fill in questions is considered useful by the end users, because it gives them an opportunity to think about issues they hadn't considered. The matrix does provide a wide range of options, but it is important to allow people to find their own options.

Presentation 2 – **Kalinka Nakova**

Programme coordinator, Centre for Energy Efficient Eneffect, Bulgaria

Energy efficiency networks in eastern Europe and capacity building for urban sustainability

No questions.

Presentation 3 – **Sophie Dawance**

Inter Environment Wallonie architect and urban planner, member of the IEW, land use and building matters, Belgium

Challenges of an association to incorporate sustainability concerns into the political decision process.

Questions/comments

1 There are many different definitions of sustainability. Is PETUS neutral in its approach of what is sustainable, and what is PETUSs approach to the varying requirements of local authorities?

Elena Dimitrova: *In these complicated debates it's often best to keep to a broader definition of sustainability. The partners technical knowledge has gone into PETUS, as well as consideration of the ethical dimension. The Bulgarian case studies are appropriate for showing the varying local authority requirements and they illustrate the varying choices available.*

2 At the European level, the Ecological Footprint is being used as a tool. A sustainable city has a small ecological footprint, therefore there is a need to produce development with a small ecological footprint. To do this impacts need to be reduced and ethical considerations introduced. Perhaps PETUS should make more of the Ecological Footprint?

3 Work is ongoing to develop the Ecological Footprint to allow comparisons between different Ecological Footprints to occur. The Ecological Footprint reveals areas that need effort devoted to them. At a regional level, half of the Ecological Footprint relates to communal facilities but also personal choice determines whether a person cycles or drives an eco friendly car.

Session 3 – Tools and testing

Chair: Elena Dimitrova, University of Architecture, Civil Engineering and Geodesy

This session will provide information on how to measure the progress of sustainability in urban infrastructure, what evaluation tools try to do and the methods behind how the tools are created and by who?

Presentation 4 – **Veronica Cremaso**

Universite de Liege, Belgium

The role of tools in urban infrastructure projects, plans and programs, PETUS outcomes

Presentation 5 – **Eric Thomas**

Assistant Director, Environmental Management and Engineering, Welsh Health Estates

The use of sustainability tools in the development of health estates in the UK

Questions

1 There will be a new version of NEAT (National Health Service Environmental Assessment Tool), but PETUS has the old version reviewed, is there a risk that PETUS will link to out of date tools, for example PETUS links the

South East BRE Sustainable Checklist for Development and yet new Checklists are being written for the other regions?

Eric Thomas: *The NEAT tool is not ready yet and will be accessible on the website, which PETUS links to.*

Prof. Phil Jones: *PETUS will be kept updated for a minimum of two years, but there will always be tools that are no longer available or used, and then perhaps these will have to be removed from PETUS.*

2 To Eric Thomas, you said when doing refurbishments, there are problems with using NEAT? What happens with regard to embodied energy for material that is already there?

Eric Thomas: *Tools have problems adapting, especially within terms of having a target for example an energy target.*

3 Is NEAT useful in the master planning of new buildings/hospitals?

Eric Thomas: *We hope to make NEAT a master planning tool for sustainability so that it would apply to a number of buildings rather than just the one building.*

4 Is NEAT applicable in England too?

Eric Thomas: *NEAT originates in England, but has been slightly adapted for application in Wales.*

5 What was the problem with smaller projects?

Eric Thomas: *Going through the criteria for NEAT is quite overwhelming for small projects, so they often cherry pick the questions they wish to answer. There are only two people who work on NEAT in Wales, so there is a resource issue when discussing possible changes to be made to NEAT. However workshops are run over Wales for hospital trusts and large projects on the NEAT tool, but the lack of resources makes it impossible to do this for the numerous smaller projects.*

6 Does the tool consider psychological aspects of new buildings and sustainability too?

Eric Thomas: *There are psychological issues in NEAT through consideration of art, design and temperature control, but there are many questions that could be included in NEAT, but there has to be a balance in the content of the questions.*

Presentation 5 – **Bernard Chocat** [change in programme]

Institut National des Sciences Appliquees de Lyon, France

Storm water management and sustainable development throughout the world

No questions

Presentation 6 – **Steve Matthews**

ERM, UK

Squaring the triangle – a framework for evaluating sustainability performance on urban regeneration projects

Questions

1 Coed Darcy won't be complete for another 5 to 10 years, how will you get politicians supporting a project with such a long time scale?

Steve Matthews: *Coed Darcy is actually a 25 year project. There are a number of ways to convince people – by*

showing that the project is financially viable; that there is no alternative brownfield site for such a development; the support of Prince Charles does a lot to get positive political support; and the support of the matrix tool [based on the BRE Sustainability Checklist for Development]. Once this is achieved the next battle is to persuade the Planning Inspector to grant a twenty five year approval when there is only ten years left on the Unitary Development Plan.

2 Would there be any other people who could pull the weight that Prince Charles does for your project?

Steve Matthews: *Some politicians could.*

3 Will the matrix be used on other developments in Wales, and isn't BRE producing a checklist for Wales anyway?

Steve Matthews: *I hope to use the matrix on other developments too. A lot of time has been spent on it and it is a simple tool to use which is important.*

4 Is the matrix available on the PETUS website?

Steve Matthews: *The tool is produced in house, so not available through the website, but a copy could be made available by contacting him directly.*

Presentation 8 – **Matthew Rhodes**

Encraft, UK

Application of a prototype decision-support tool to a development in the UK Midlands.

Questions

1 For a development some way down the road, how would you identify who the customers would be?

Matthew Rhodes: *In the example discussed, the development was to be within a small community, so it was known who was involved and who to talk to, but if necessary we could have gone further and talked to the local housing association and other relevant bodies.*

2 What options did you give those people?

Matthew Rhodes: *This was a stakeholder driven process. We brought in developers and asked them to talk to the stakeholders about what they had done. Developers who came included those from BedZed, from Birmingham, Japan, German and Denmark. Then the stakeholders, Warwickshire County Council, cherry picked what kind of development they were interested in – so a human process, but this was accompanied by a more scientific process which identified costs and savings for the various options.*

3 How would you use this process in new areas?

Matthew Rhodes: *If new communities are being built then there must be a target group of people who a developer would want to move in.*

4 Where does the costing information within the tool come from? You talked about using technological innovations, but costings can create barriers for development, but it does depend on what technology is used.

Matthew Rhodes: *We have had databases put together by three postgraduates. This information is then used when calculating costs, but this means sums often come out disappointingly high, as they are added up objectively. However we hope we could negotiate the costs down.*

5 Is the model an aid for composite solutions to energy – a balance between producing energy demand to technologies through insulation or whatever and then providing community heating or CHP? There's obviously a balance there and a scale issue.

Matthew Rhodes: *We really wanted the model to do this, so yes the model does do that, whether people actually appreciate that fact or not!*

Friday 16th September 2005

Session 4 – Sustainability in Action – illustrations through case studies

Chair: Morten Elle, Technical University of Denmark

This session will focus on inspirational European experiences of different ways of implementing sustainable solutions in the urban built environment.

Presentation 9 – Jesper Ole Jenson

Technical University of Denmark

Exploring aspects of urban sustainability and the use of tools in Europe – using the PETUS cases.

Questions/comments

1 Tools are sometimes altered to meet local circumstances, does this risk a tool being amended in order to achieve a certain result? For example, if a Local Authority requires a certain achievement level what is to stop a developer from altering a tool to return these results? Would an independent body controlling tools be a good idea?

Jesper Ole Jenson: *It is not so simple as to start an independent body, however if a local authority was requiring a certain standard, they could monitor the use of a tool.*

2 If tools such as EcoHomes are used, then it is possible to see what an assessment is based on, therefore a separate body is not required to monitor, since BRE monitors EcoHomes.

3 But this is BRE's standard, how is it known that this is the right standard? BRE sets the standard but it is not monitored by anyone else. So is it better to have one tool rather than many tools?

Questioner 2: EcoHomes is an accepted standard, but having just one tool is also not the way. A criticism of PETUS would be that there are so many tools and no recommendations.

Joanne Patterson: *PETUS aims to encourage people to use tools and increase sustainability rather than specifying that a certain tool must be used. It is better to increase sustainability with any tool rather than doing nothing.*

Presentation 10 – Elisabeth Sibeud

Engineering and Design Department of Water in Greater Lyon, France

Sustainable water policy and applications in Lyon

No questions

Presentation 11 – Tom Bourne

Welsh Development Agency, UK

Working Differently

The first half of this presentation was not accompanied by a power point presentation – notes of the presentation are Appendix 1.

Questions

1 Comparing the PETUS website to the design of the tool that Tom Bourne has shown, I was disappointed that I could not get access to some tools. The link didn't work or went to a general site rather than the tool.

2 There need to be some prioritising of the tools on the website. In the South East Upstream Consultants found 123 tools and has listed the tools and the frequency of their use. The results showed that only 2/3rds were used, and this is important for knowing which are used meaning that the wrinkles have been ironed out.

Prof. Phil Jones: *In other words, what PETUS should have is easy access to tools and identification of which tools are used the most? Not all tools are publically available or are free to use, but PETUS provides that information and provides reviews of useful tools and concepts.*

Session 5 – Sustainability and decision making

Chair: Norbert Plass, Joanneum Research, Austria

This session will provide practical examples of clearly structured decision making processes that offer advantages for conflict prevention, planning, goal finding and for sustainability.

Presentation 12 – **Norbert Plass**

Joanneum Research, Austria

A decision making framework for planning

No questions

Presentation 13 - **Jørgen Lund Madsen**

Deputy Director of the Environmental Protection Agency, City of Copenhagen

Dogme 2000- Sustainable management of a city

Questions

1 Have you had any problems with the impact of national level government on city level decisions for example a road through the city? At times in Wales the government over rides the local authority on decisions.

Jørgen Lund Madsen: *What is written in the document and master plan on sustainability issues mostly covers all the issues. Most development is covered by the City of Copenhagen, including streets. However there have been occasional problems with national government and the city over the harbour developments, but mostly the city and national government work together on such projects.*

2 In your presentation you said that you are in meetings with the Director of Social issues and Economic Director, has Dogme 2000 brought social and economic sector benefits, as well as the environmental benefits?

Jørgen Lund Madsen: *Dogme 2000 has brought definite benefits to the social sector, the environmental improvements have brought benefits socially. When asked people in communities what they considered important, they say the environment, so this becomes a social factor. The economic sector is the biggest problem, but most*

projects have brought back money in the long term.

Presentation 14 – **Gerhard Harer**

ÖBB Infrastruktur Bau, AG, Austria

Koralalm tunnel – Benefits of a structured civic participation – the client's view

Questions

1 How did you measure the success of participation in the project?

Gerhard Harer: *Success is that we are building the railway without political or local opposition.*

2 Was the process led by the EIA?

Gerhard Harer: *The tool was created to meet the needs of the project.*

3 The presentation showed that a large number of documents were produced for the EIA, were a large number of documents also generated from those opposing the development, and was there another process for people objecting to the development?

Gerhard Harer: *It is a legal requirement to give documentation for civil participation. The authorities have to be happy with the process and accept the documentation. The papers are then published for public comment and people are then able to write in to state if they are in support or objecting to the development, or feel the papers give a misrepresentation.*

4 The concept of public consultation should reduce the amount of paper as people learn more about the project and get ownership of it, which results in less paper. In the UK, it is now a statutory requirement for Forward Planning for public consultation, however it is not yet applicable to planning applications.

Gerhard Harer: *There are one or two questions not yet solved. In Austria, the EIA is not allowed to be submitted in digital form – this would allow information to be searched and accessed more quickly, and prevent the volumes of paper. It would be great if all that was required was the submission of twenty pages of project description to the authorities and for everyone to be happy, but this is not possible and so the submitted papers prove that the development is acceptable and has considered all aspects.*

5 What is the timescale of the development?

The project began in 1989 with planning, and the end of the legal procedure is 2002. This is therefore considered a very quick and big success.

Session 6 – Workshop session

Chair: Professor Phil Jones, Cardiff University

Future of evaluation of sustainability and training

The workshop was based on the PETUS matrix. Each group was led by a facilitator, a member of the PETUS project, and discussed two columns from the PETUS matrix. One column was always the first column of the matrix: 'Project details'. The two columns were considered using the following questions:

- Are the questions relevant for urban infrastructure projects?
- Do the questions cover all the necessary areas? If not what is missing?

- Is the way the questions are set up appropriate?
- What would attract or deter you from using the PETUS matrix?
- What general ideas, recommendations and problems would you suggest to improve the PETUS matrix?

Following the discussions, the conference regrouped to present the findings of each workgroup.

Group 1

Columns discussed: 'Project details' & 'Tools methods indicators'.

Feedback included:

- The matrix has great potential;
- The questions within the matrix are too wide and could be answered in different ways;
- The overall objective should be answering all the questions to lead the user to the right tool, but there is a real concern that the questions don't provide you with a common language in terms of responding to the matrix.

Questions arising from the matrix:

- A wider range of tools are required, there needs to be a wide range of tools to cater for the range of potential projects, which will vary geographically and culturally, that might come forward;
- Common to all tools is the need to embrace economic, social and environmental aspects;
- When choosing a tool, it is important to identify the projects objectives which would then link the user to the tool that they should use;
- In terms of timescale, the longer the process the better the outcome, especially with regard to putting the tool in practice;
- A tool that can evaluate the success or failure of a project, is considered very important, with evaluation seen as achieving progress;
- One thing missing from the matrix is the facility to allow feedback from end users. End users are important, they too have a variety of professional and technical skills and knowledge.

Group 2

Columns discussed 'Project details' & 'Decision making'

The response from group 2 to the two columns included:

- The matrix needs to be as simple as possible -there are too many questions within the matrix;
- The questions within the matrix need to be reconsidered:
 - The questions and words are sometimes confusing and the questions aren't clear;
 - There are too many questions- the fewer questions the better;
 - Need to identify that not all questions are applicable in all situations;
 - Make it clear that the matrix is an iterative process to be gone through again and again – not just once.
- A complete matrix as an example would be very useful, although caution would have to be taken in case innovation is blocked;
- The discussion highlighted that there is some confusion over the following issues and that answers must be made clear:

- What the matrix is for;
- What the benefits of the matrix were; / What can the user get out of it? This needs to be made clear;
- Users need to be aware that the matrix is intended to be a reminder for example if I have some ideas for a project, what should I consider.
- Some simple text in front of the matrix as guidance would be extremely useful;
- Concerning the tools: access to them should be free, and at the least they should be divided into two sections:
 - Tools directly accessible through the PETUS homepage;
 - Tools that have to be paid for or access from elsewhere.

The Project details column was discussed:

- Baseline: this should also include the surveys that have been done and a reminder to consider the political situation;
- Evaluate alternatives: it should be clear for question one in this section that the needs of end –users should be thought of here;
- Propose improvements: the first question here should be: What are the improvements necessary?

Decision making column:

- Baseline: list the type of consensus you need (the various permissions required by different people/departments for the project to go ahead);
- Key impacts: the questions about public concerns and ideas should be put in the column about the public/stakeholder participation;
- Evaluate alternatives: The question on who should do the evaluation, should continue with ‘of the alternatives’, to make the questions clearer;
- Propose improvements: add ‘when’ to the question about who and how are mitigation measures improved;
- Reporting: the questions about who makes the decision is not clear;
- Monitoring:
 - the second and third questions should be merged to: Who would undertake (which planning authority) the monitoring and to whom would they report?
 - Additional questions should be: Who is to pay for the monitoring, and Who is doing the monitoring and when?
- Repetition of the same questions in different columns should be avoided.

Group 3

Columns discussed ‘Project details’ & ‘Public/stakeholder participation’

There were insufficient people remaining at the conference for this workshop group to have a good discussion, therefore this column was not discussed.

Group 4

Columns discussed ‘Project details’ & ‘Communication’

- Group 4 discussed the matrix and its value in general terms and questioned what would make people use the matrix?

- Looking at the stages of the matrix, the group felt the order needed to be amended:
 - AIMS = Project summary
 - A. Objectives
 - B. Base line – gathering information
 - C. Key impacts
 - D. Options
 - E. Evaluate options
 - F. Refine options
 - G. Reporting
 - H. Monitoring – this is evaluating the project.

Comments on the matrix and questions included:

- It would be better to separate the aims away from the matrix to allow more thought to be spent on it;
- The matrix launches into baseline gathering before knowledge about the project has been properly gathered;
- Only after the objectives have been identified, should the base line be considered;
- The first questions need to include ‘Have you a site? Have you outline planning permission? Is the project in the Unitary Development Plan?’;
- Box D ‘Evaluate alternatives’ needs to be replaced by ‘What alternatives’ or ‘Options’;
- Box G (as is) ‘Monitoring’ should be explained – monitoring what?- this project or next project? Monitoring is clearly needed throughout a project and afterwards.
- Is PETUS applicable for a whole project? Group 4 saw PETUS as being applicable to the starting part of a project.
- ‘Project Details’: the heading should actually be ‘Project analysis’ as the questions within this column are relevant to analysis rather than details.
- The terminology of the matrix needs to be simpler depending on the audience for example the term ‘Baseline’;
- It does not state anywhere that the matrix should be revisited over time especially as the needs of the stakeholders change.

Group 5

Columns discussed ‘Project details’ & ‘Outputs’.

The group provided the following feedback:

- The Project details do not include any questions on who the respondents are or what type of project type.
- The type of person who is managing or completing the information will have an influence on the project output;
- What is the object of PETUS? If the objective is to bring tools together there needs to be a real focus, one that brings a real benefit;
- It needs to be clear from the outset of PETUS what a user can get from PETUS;
- Does PETUS require a commercial focus to survive in the market place?
- PETUS is trying to cover a very large geographical area and large market place instead of looking at the whole of a smaller space;

- Possible future development for PETUS would be the incorporation of tools discussed within PETUS into the PETUS website, rather than providing an external link.

Questions/comments

1 Prof. Phil Jones: Do people think the matrix is the right type of thing?

Yes if it's simpler it would be very useful, especially in providing a common language.

2 *Some of the tools from today's presentations have been very simple, focused and straightforward to use, for example BREEAM. With BREEAM the user moves through the questions, and each question can provide background and context.*

3 The matrix does not show how well the user is doing, and not sure what PETUS will show the user at the end of the day.

Prof. Phil Jones: *The greenness within the matrix is not intended to show the user how well they are doing. The matrix is intended to provide continuation through a long running project. The matrix also reflects the requirements of SEA, and has the facility for printing out which allows the user to have a hard copy option.*

4 As a device, it's an ongoing process, but isn't it likely to take a long time to develop?

Prof. Phil Jones: *The intention is to carry on especially in view of the positive comments from Europe.*

5 Is there a way of introducing a time scale into the matrix, for example with a tick box for indicating what stage of a project you are at, and then the matrix could highlight what is appropriate to that project or what should be revisited?

Prof. Phil Jones: *There might be time to develop the matrix further, the PETUS project still has one more meeting and the matrix in its final state has only just been completed.*

6 Could the matrix be broken down into modules to make it easier to navigate?

Prof. Phil Jones: *It might be possible to black out some of the boxes for less important questions.*

The conference was closed by Prof. Phil Jones following a closing summary.

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Notes of presentation by Tom Bourne, Welsh Development Agency

Working Differently

Tom Bourne is the Environmental Director of the Welsh Development Agency (WDA)

The WDA does a lot of work with communities and business, and works with local authorities, developers and community groups. They do this in a number of ways they buy land and reclaim it and then promote it for developers who help sell it. Also work with foreign development and business development. The WDA is one step removed from the development process, in not being the developer but facilitating development. This work raises the question, what sort of tools should be used to integrate sustainability into development.

The presentation covers two tools:

Tool 1: Creating Sustainable Places

The WDA is committed to creating sustainable places, and the purpose of this document is to introduce a common language on what the WDA means by sustainable development. This tool is the method the WDA uses to tell people the WDA uses what they think is a sustainable development. The WDA believes that in order to create a sustainable development there is a need to follow certain processes. The WDA briefly describes what the processes are and asks the developer to tell the WDA how they think they can follow these processes in the most cost effective way – as it is important to minimise costs and impact.

The WDA asks developers to give a design statement on what they will do to make the project sustainable using the language in the WDA document. The document also outlines how the WDA expects documents to be submitted. The WDA hopes this tool inspires the developers and then the architects to share the WDAs vision. Llandarcy Urban Village case study follows a similar process to that laid out in 'Creating Sustainable Places'.

What is a sustainable place? Tom Bourne's ideas originate from a conference on 'Environmental aspect of buildings' where one questioner said that they thought a sustainable building was one that people wanted to be in. Tom Bourne believes this should be applied to a sustainable place too, in terms of economic, environmental and social terms.

Tool 2: Working differently

This is a toolkit, which has been reviewed by PETUS. The tool has two aims: (i) to provide guidance to developers and (ii) to be an integration tool. The tool comes out of discussions with colleagues on how best to create a sustainable place. The tool incorporates the main headline aims for sustainable development as in the UK Government strategy on Sustainable Development and guidance from the Welsh Assembly Government. Integration is achieved by ensuring all aims are taken into account. The task is undertaken by a group of 5 or 6

different people with different interests in terms of environment, social and economic. The proposed development is presented and the way that it responds to each section of the tool is discussed, and if the solutions or mitigations to any issues raised is acceptable. The tool has a cross check system to ensure sustainability is being successfully incorporated. When used regularly the social aspect – the impact on people comes out more than the environmental aspect such as biodiversity.

The tool uses five levels of sustainability:

- 1 Programmes
- 2 Area visions and strategies
- 3 Sustainable sites
- 4 Master plans
- 5 Sustainable construction/design

The tools are in this order because if they start at the design stage many opportunities can be missed out to create sustainable communities and sustainable places.

Programmes & Area visions and strategies

This incorporates a broad range of programmes – for example, an industry programme for property or a business support programme. Within the programmes sustainable development often means different things. The WDA can often find when visiting a local authority that there are many strategies, which don't communicate to each other.

Sustainable sites

This is a Site Sustainability Appraisal Tool.

Master plans

Whatever issues that have arisen under Sustainable sites, must also be incorporated in the Master planning stage, in order to create a sustainable place.

Sustainable construction/design

In this stage, we are asking for BREEAM assessments and other environmental measures.

The WDA also provides some urban design guidance. While it is not the WDAs job to design things, they wish to promote a sustainable approach and solutions.

The WDA only produces the briefing for the site once the site appraisal has been completed and submitted to the WDA. If a developer approaches the WDA with a proposal for a site, the WDA will use this tool to assess the designs that the architect has put together. The tool has been developed for the WDAs use, in order that it serves the unique way in which they work in the development process. The only barrier to the implementation of the tool, are people working in a way outside the WDAs normal box.

The WDA intend to have the tool available on their website within a few of weeks.