Eco Design Advisor

Customer Survey Results

Years 2012-2013

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CONTENTS

SUMMARY 3
1.0 INTRODUCTION 4
2.0 METHOD 4
3.0 RESULTS 5
3.1 Overall Response 5
3.2 Who Participated? 5
3.3 Motivations and Intentions of Participants 6
3.4 Usefulness and Suitability of Advice 7
3.5 Changes Made as a Result of the Advice 8
3.6 Changes to Behaviour as a Result of the Advice 11
3.7 Benefits Received as a Result of the Advice 12
3.8 Obstacles to Implementing Advice 12
3.9 Finding Out About the Service 11
3.10 Improvements to the Programme 12
3.11 General comments on the service 13
4.0 RECOMMENDATIONS FOR FURTHER RESEARCH 14
5.0 REFERENCES 14

SUMMARY

This summary report results from a survey of people who have received advice as part of the Eco Design Advisor service, a free, independent advisory service unique in the world and now available in seven councils in New Zealand. The survey was undertaken over the summer of 2012 – 2013 and its participants were randomly selected from those who had all used the service within two years prior to the survey. The Eco Design Advisor (EDA) participant homeowners get an assessment of their home and are provided with targeted advice on what can be done to improve its performance. Topics covered by the EDAs cover a wide range of environmental issues, but typically include the topics of: thermal insulation, energy efficiency, water management, and material sustainability. This survey is an extension and continuation of the previous (Easton and Simperingham, 2011) homeowner survey.

The 2012- 2013 survey findings include:

- Most homeowners were undertaking modifications (i.e. home improvements) to existing homes, although some 13% were involved in new home building projects
- Making their homes more energy efficient was the primary motivating factor for the majority of participants, while making it warmer and reducing running costs were also high priority motivators.
- The survey respondents were overwhelmingly positive about the suitability of the advice provided by the eco design advisors. Recommendations which respondents found most useful were:
    - installation of ceiling/underfloor insulation
    - home heating
    - curtains and blinds
    - draught proofing doors and windows, and
    - wall insulation.

In terms of results, 81% of participants indicated that they had made changes to their house following the advice.

Survey respondents felt the main improvement required was building awareness through better promotion of the programme, with a range of additional methods suggested to improve this.

1.0 INTRODUCTION

The Eco Design Advisor service has been running since 2006 in a range of councils across New Zealand, as the result of a BRANZ research initiative (Christie, L. et alia, 2007). It was developed in direct response to research which found that there was a lack of well-targeted, independent and expert information on environmental-building available – for the consumer and building industry as a whole.

While some evaluation of the programme has been undertaken previously (Christie, L. et alia, 2007), the effectiveness of the service has only been examined in detail for the first time in 2011 (Easton and Simperingham, 2011). The impetus for the 2011 survey stemmed from a Beacon Pathway review of the programme (Easton, 2011), that identified the effectiveness of the service in terms of change within homes and their resource use was unknown. In order to start addressing this research gap, the Eco Design Advisors developed the original survey that was sent out to participants in the programme over December 2010– February 2011 using an email format with the data collected through the Survey Monkey website.

This 2013 study extends the 2011 survey slightly, but to a large extent duplicates the questions. The findings of this 2013 survey are shown, with some comparison with the previous survey results, where questions have been directly duplicated. It also provides recommendations for future research and evaluation of the Eco Design Advisor programme.

2.0 METHOD

The latest survey methodology was undertaken by sending out a National survey (refer Appendix 2) to participants in the Auckland, Hutt City, Kapiti, Nelson and Palmerston North areas. As previously (2011), the surveyed households were all those who had had an Eco Design Advisor programme in their area operating within the last 2 years and had made use of the service. Participants were emailed with a request to participate in the survey with a fortnight given for returns. The survey information was collated in Survey Monkey (www.surveymonkey.co.nz) – an online surveying resource.

3.0 RESULTS

3.1 Overall Response

A total of 705 participants were asked to take the 2013 survey and 235 responses were received. The response rate was 33%. This was up from 24% in 2011.

The distribution by area was: Auckland = 42% of sample, Kapiti = 19%, Palmerston North = 17%, Hutt City = 10%, and Nelson = 9% .

3.2 Who Participated?

The respondents comprised 61% female, 39% male. Some 85% of the respondents classified themselves as 'Pakeha'.

Household sizes were on average larger than the national average, and there were notably a fewer number of single person households and a larger number of 2 and 4 person households. Other advice programmes of this kind, e.g. Beacon Pathway's HomeSmart™ Renovations participants (Saville Smith et al, 2010) were also noted for fewer numbers of single person households. This perhaps reflects the lesser likelihood that single person households would renovate/retrofit or build a new home. Generally renovation activity is most frequently noted in households which have recently moved, or where life changes (such as new family member, family members changing requirements with age) occur.

Table 1: Household Size of EDA Service Participants

Household Size	**2013 EDA Survey**	**New Zealand Households** (2006 Census)
1 person	14%	22.6%
2 people	35%	34%
3 people	17%	16.5%
4 people	22%	15.2%
5 or more people	12%	11.7%
Average Household Size	2.8 people	2.7 people

The majority of projects were described as Home Improvement (Retrofit) projects (e.g. insulation, heating, solar water heating, water tank), although there was a small but significant number of new builds (13%) , and a smaller number of house extensions (5%). There was little regional difference between the types of projects.

Table 2: Types of Projects Undertaken by Participants in the EDA Service

Type of Project[1]	Count	Percentage
New build	31	13%
Renovation	38	16%
Extension	12	5%
Retrofit	167	71%
Other	9	4%

Some people were unclear of the type of project they were proposing (so answered "other").

3.3 Motivations and Intentions of Participants

The design of the motivations and intentions part of the survey offered 12 motivating factors which could be ranked from 1-12. As for the previous EDA survey (2011), having an energy efficient and warmer house were the top two motivating factors to use the EDA service. These outranked the other motivators by a considerable margin (see Table 3). The desire to reduce running costs and also the environmental impact were the third and fourth ranked motivating factors. The order of priority was similar to the previous 2011 EDA survey.

These findings are similar to those from the HomeSmart™ Renovations research – the poor standard of insulation and low temperatures in New Zealand homes means that households tend to be very focussed on addressing those issues as a priority. However secondary drivers such as energy efficiency and the concern for the environment are also important, and are likely to influence the choices made by people in addressing their primary motivation.

[1] This was a multiple answer question so numbers add up to greater than 100%

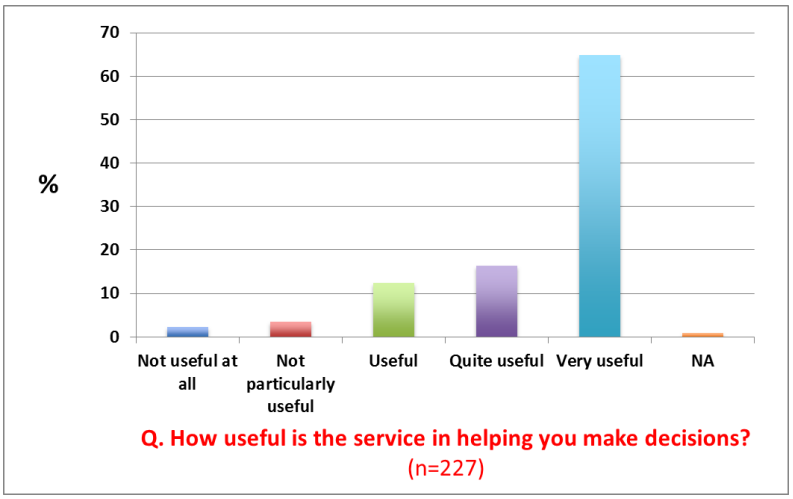
Table 3: Priority of Motivations for Use of the Eco Design Advisor Service[2]

Motivation	Rank	Percent
Energy Efficiency	1	74.6%
Warmer House	2	66.4%
Reduce Running Costs	3	48.3%
Reduced Environmental Impact	4	31.5%
More comfortable house	5	29.7%
Improve health	6	22.4%
Less damp house	7	18.1%
Less mouldy house	8	14.2%
Greater resale value	9	7.8%
Easier to sell house	10=	3.4%
Other	10=	3.4%
More attractive house	12	1.3%

3.4 Usefulness and Suitability of Advice

The survey asked how useful the service was in helping to make decisions about their home. The respondents were overwhelmingly positive about the usefulness of the advice with only five respondents labelling the advice as not useful at all. A total of 94% of the respondents said the advice was either: useful, quite useful or very useful – a very encouraging result by any measure. The results are shown in figure 1 following. This compares with 98% in 2011.

Figure 1: Usefulness of Advice from Eco Design Advisors



[2] This was a multiple answer question so numbers add up to greater than 100%

Some examples of comments made about the service were:

"The advice I had was wow, the gentleman showed up on time though it was winter & he understood & gave perfect advice, I implemented everything except to control the draught from the doors etc because I do not know where to find the solution, I am really, really happy I got your services free of cost, I have also advised a few of my friends to benefit from it, you guys are really good at creating wow solutions, I ended up having a more functional home & a better way of life, thank you very, very much :):):) "

"Very happy with service. Was a big help in making decisions, especially with order to do things in, and also importance of each project."

"The gentleman who came to my home was fantastic - I learnt a lot and have implemented quite a few changes and saving for the next stage."

In terms of what advice was most suitable a more detailed question was asked of people about what specific pieces of advice were most useful. The top six single most useful recommendations were:

- Ceiling and/or underfloor insulation (at 53%)
- Curtains and blinds (46%)
- Home heating (41%)
- Draught proofing doors and windows (30%)
- Ventilation/causes of mould/moisture (29%)
- Double/secondary glazing (24%)

As well as the selected responses, many respondents added additional comments – around the general topic areas that they found most useful – including topics not included in the survey listing. This was because participants appeared to be undertaking multiple actions – and it was the combination of these which gave them the improvements they were looking for in their home.

3.5 Changes Made as a Result of the Advice

Participants were asked whether they made changes as a result of the advice given. This provides an indication of the effectiveness of the service – for without action, even the best advice is useless. Of the 227 respondents, 81% of participants indicated that they had made changes as a result of the advice given and 83% said they intended to make additional changes – a very encouraging result and reflective of the previous study's findings.

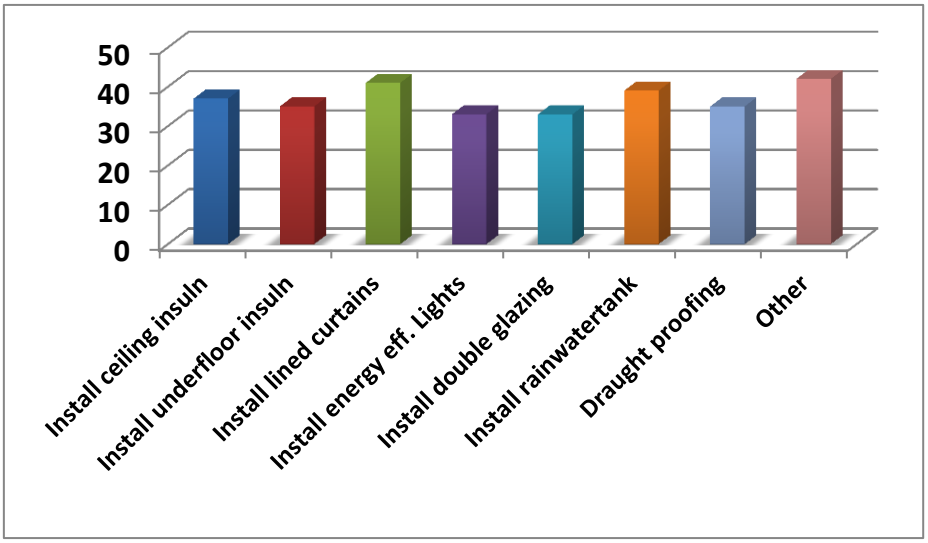
As in the previous survey, the top ranked intervention was installation of ceiling insulation – with 48% of participants indicating that they had installed this. Underfloor insulation was the next most popular intervention (45%), followed by installing curtains/Roman blinds/drapes (38%). Energy efficient lighting (23%), draught proofed doors and windows (22%) and accessing Government Funding (21%) were the next most popular interventions.

As before, of the top 5 interventions all but 'installation of curtains' have been the subject of energy efficiency campaigns and are the subject of government subsidy programmes. Undoubtedly the EDA service is reinforcing those programmes – and in particular helping people take the necessary steps to access funding they might require. Table 4 below shows the range of interventions and rate at which participants have taken these up, but with only the top 15 shown, while figure 2 shows the changes the respondents **still intend** to make.

Table 4: Changes Made as a Result of the Advice – Percentage Respondents (the top 15 only)

Change Made	Percentage
Ceiling Insulation	48
Bulk underfloor insulation	45
Lined curtains/drapes/ Roman blinds	38
Energy efficient lighting	23
Hot water cylinder wrap/ pipe lagging	22
Government funding	21
Heat pump	18
Underfloor vapour barrier	17
Double or secondary glazing	13
Reduced/replaced downlights	13
Efficient shower head	13
Bathroom extract fan/ outside venting	12
Water efficient toilet	9
Wall insulation	9
Rainwater tank	7

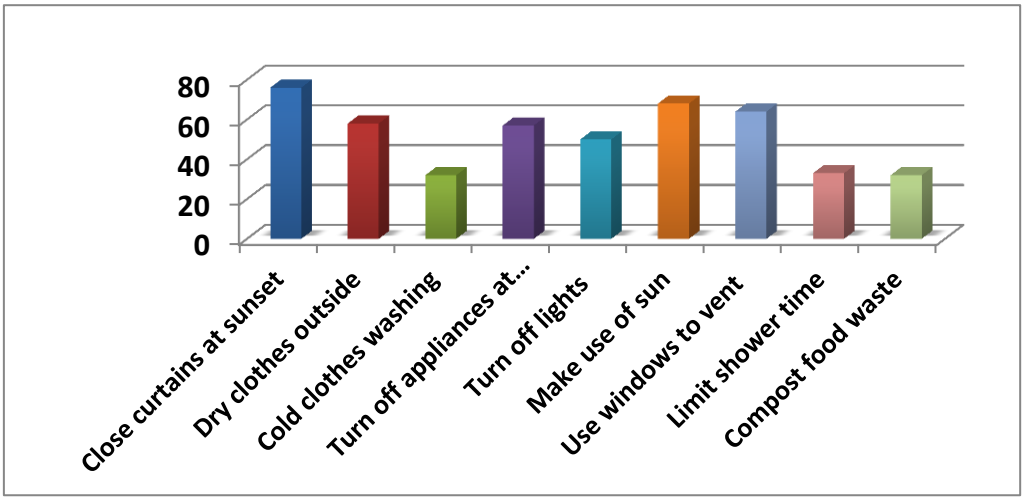
Figure 2: What particular changes do you intend to make as a result as the advice? (top 8)



3.6 Changes to Behaviour as a Result of the Advice

This was a new question in the survey. Eco Design Advisors offer advice on how the occupants use the home as well as design it, as many of the benefits of a well-designed home can be undone by uneducated use. The results show this advice is well-received, with habits like closing curtains at sunset, drying clothes outside, making use of the sun and opening windows to ventilate the house being followed.

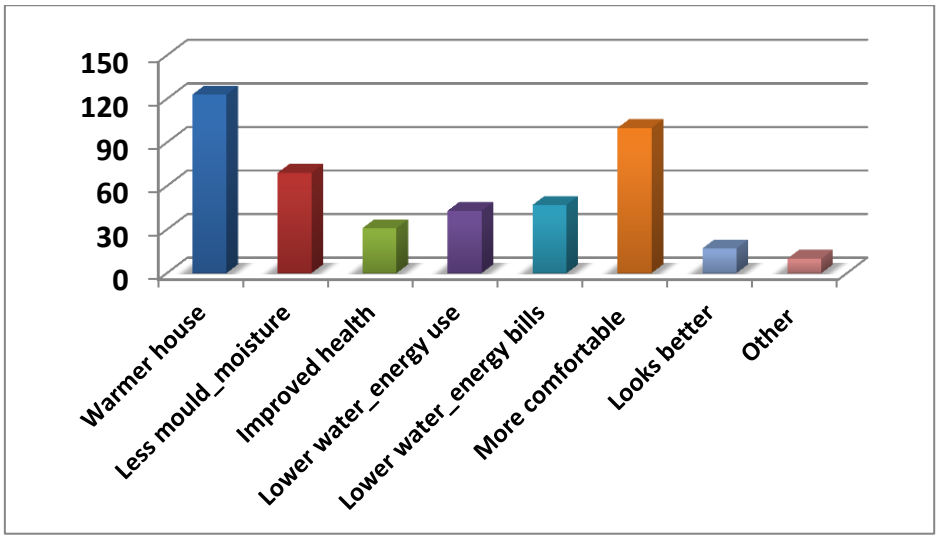
Figure 3: What are you doing differently as a result of advice you received? (top 9)



3.7 Benefits Received as a Result of the Advice

Another new question in 2013, this evaluated on a perception level what benefits were received. This reinforces other research, conducted through focus group studies and in quantitative samples, that the benefits of good design are substantive and not just restricted to energy and water savings.

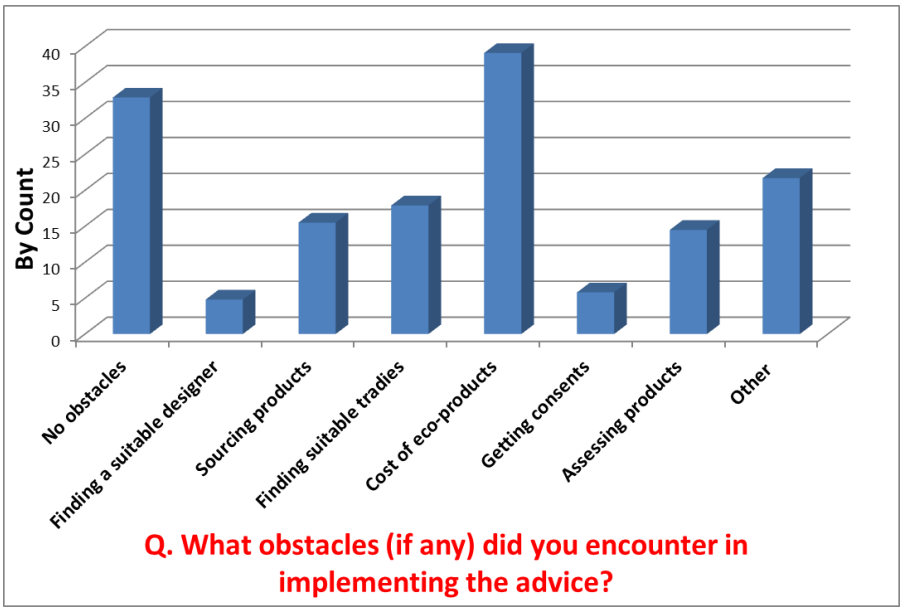
Figure 4: What Positive Effects Have You or Your Family Experienced?



3.8 Obstacles to Implementing Advice

The respondents were asked "*What obstacles (if any) did you encounter in implementing the advice?"* More than one choice was allowed. The 315 responses identified a number of obstacles to implementing the advice provided by the Eco Design Advisor service. As for the previous survey (2011), the greatest obstacle identified was the cost of the more sustainable products/systems (at 26%). However, 22% indicated that they did not have any obstacles at all, while the next highest category after' Other', was 'Finding Suitable Tradespeople' which garnered 12% of the results.

Figure 5: Obstacles to Implementing Advice

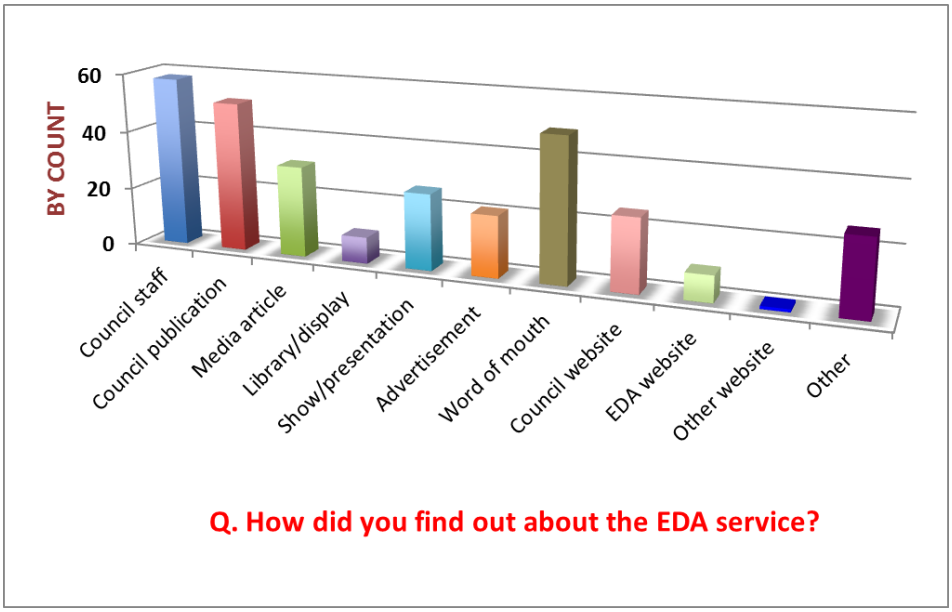


3.9 Finding Out About the Service

In terms of finding out about the service, Council staff (25%) and Council publications (22%) were the most frequent methods mentioned. Word of mouth was also important (21%), as were media articles (13%). This mirrored the previous study's findings.

As was found in Beacon's HomeSmart Renovations research, only a small proportion of participants found out about the service from the internet – reinforcing the importance of other, more traditional media. 11% of participants found out about the service from a Council website, and 4% from the Eco Design Advisor website. Only 0.4% found out about the service from other websites.

Figure 6: Ways in Which Respondents Found Out About the Service[3]



3.10 Improvements to the Programme

Respondents provided a wide range of suggestions about how the programme could be improved and promoted. As for the previous 2011 survey, the key theme which emerges from this is that more promotion and awareness raising of the service is suggested. A range of ways to do this were suggested including use of local newspapers, and the range of resources (newsletters, libraries, building consent officers) that Councils have for other purposes. In addition, publicising through trade professionals was suggested.

Some examples of comments made in response to this question follow:

"Fantastic service, would like to see solar power encouraged by government and have financial incentives for it or some financial assistance."

"This is a great service, and should be more available, as many people don't know that this is available and without cost."

"It is not well known about - maybe better advertising through the building/resource consent process, or through existing service providers like architects/builders/tradespeople."

"Took me a while to find out that the Council ran this service. Better advertising might have been helpful."

"This service was very helpful for us in planning and has helped us to be clear about what we want and communicate this to our architectural designer. If our budget was larger we would do more…"

"Keep doing what you are doing, I have recommended the service to friends, so encourage word of mouth."

[3] Does not add up to 100% as respondents could tick more than one answer

3.11 General comments on the service

There were many other outstanding comments voiced by the respondents. Here is a small selection:

"Fred Braxton was brilliant educator and identifier of commercial myth, I was utterly impressed by his breadth of knowledge and also his unabashed way if he did not know a topic - he said. A credit to the council, nice to see science based logic for a change."

This response was in regards to the Christchurch Plan Reviews that the Kapiti District Council EDA is coordinating:

"We spoke to Richard Morrison as part of our designing our new house (rebuild) after earthquake. He was brilliant, talking us through ALL aspects of the house plan we were considering - he'd given suggestions for improving the design and sent us relevant leaflets on things such as curtains (multilayer and to the top (rather than 'thick material') solar power, and put us in touch with someone to talk to about PV and also people who do grey water recycling. It was really helpful advice and encouragement across the board at a stage when no one else seemed to be giving this sort of impartial help (most people are trying to sell their products). Thank you very much Richard".

This is one regarding the Palmerston North EDA:

"I was extremely satisfied with the assistance I received. 1) I really liked (that) she considered the way my family lives in tailoring her advice. 2) Because the advisor was not linked/independent of any particular products/brands, I trusted her advice more than I have information from booklets/internet etc. 3) I have heard several others couples speak about this Service since I met this advisor and all comments were very positive also."

4.0 RECOMMENDATIONS FOR FURTHER RESEARCH

Notably absent from this survey were questions about the advice provided in relation to:

- Waste
- Materials
- Transport
- Solar orientation

Some participants considered the advice provided about materials and solar orientation/passive solar design so significant that they provided feedback about this unprompted. Waste and transport are important statutory functions of local government, and key to achieving sustainable outcomes, so it would seem important that future surveys look more fully at the effectiveness/usefulness of the advice provided in relation to this topic. This was suggested by the previous survey study as well.

5.0 REFERENCES

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