Residential Ratings for Consumers

Stephen White February 2016

ENERGY TECHNOLOGY

www.csiro.au



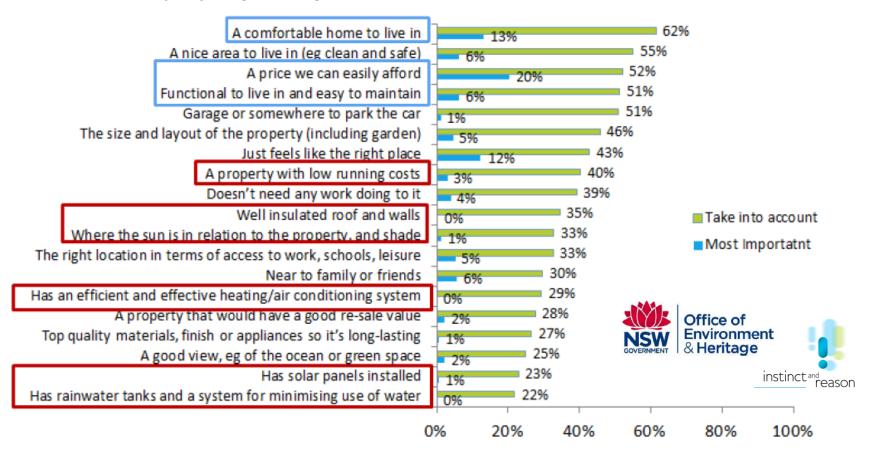




What people want

20 minute online surveys with n=954 home owners in NSW

If you were buying a new home to live in, which of these factors would you take into account when finally deciding which property to buy?









Does comfort = energy efficiency?

```
access (5) adequate (5) air (5) airy (5) areas (11) backyard (6)
bathroom (8) bedrooms (12) clean (10) cold (6)
COOING (25) COSY (7) decorated (5) easy (6) energy (5)
enough (7) environment (6) family (13) furnishings (10)
furniture (9) garden (8) heating (15) house (5)
inviting (6) kitchen (12) large (13) light (30)
living (16) location (5) lots (11)
                                     maintenance (6)
modern (9) natural (15) nice (18) open (7) plan (5)
quiet (7) relaxing (6) room (18) safe (8) secure (10) size (7)
Space (26) spacious (16) summer (10)
temperature (8) transport (6) Warm (26) winter (9)
yard (8)
```

Information on these things is not readily available at point of sale/ lease







The spectrum of assessment/communication needs

Regulatory

- Consumer protection focus (avoiding hidden costs and market failures)
- Communicating technical requirements for implementation by suppliers

Market

- Consumer awareness focus (providing choice)
- Communicating features and lifestyle benefits to consumers







Three levels of communication/ assessment are required

Communicating value and lifestyle narratives

Benchmarking against best practice









First layer (regulating house design)

- Get compliance systems in place
- Complement existing thermal only rating with broader sustainability
- No more new tools please

Minimum Standards for new homes







Flexibility lowers cost

Hence > 70% of Australian houses are designed with NatHERS software

| | Less than 5 stars | | | More than 5 stars | | |
|--------------------------|-------------------|----------|----------|-------------------|----------|----------|
| | Bris | Adel | Melb | Bris | Adel | Melb |
| External Wall insulation | \$249 | \$905 | \$925 | \$245 | \$993 | \$1,120 |
| Internal Wall Insulation | \$40 | \$244 | \$141 | \$55 | \$350 | \$138 |
| Ceiling/Roof Insulation | \$1,718 | \$1,727 | \$1,718 | \$1,669 | \$1,748 | \$1,942 |
| Single Glazed Windows | \$14,245 | \$12,897 | \$13,784 | \$11,736 | \$10,233 | \$10,325 |
| Double Glazed Windows | \$350 | \$121 | \$400 | \$0 | \$774 | \$2,242 |
| External Walls | \$27,510 | \$30,679 | \$30,250 | \$22,933 | \$26,765 | \$26,407 |
| Total Cost | \$44,113 | \$46,575 | \$47,217 | \$36,638 | \$40,864 | \$42,173 |
| Difference | | | | -\$7,475 | -\$5,711 | -\$5,045 |







Second level (disclosure)

Benchmarking against best practice







Direct energy efficiency information is like teaching a dog to read (Eager to please but contrary to nature)

- 92% would like energy efficiency information as part of sale and lease processes
- 89% reported that an energy efficient home would be more attractive to buy or rent
- 56% would be willing to pay for energy efficiency information (44% would pay up to \$250)
- 92% would like energy efficiency information in building inspection reports, 83% at house inspections and 72% in home sale/rental advertising





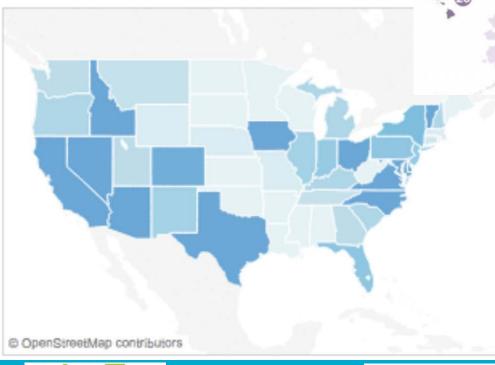




Mainly effective if the policy

environment is right





37 37 39 39 33 * Most Improved Ranks 1-10 Ranks 21-30 Ranks 21-30 Ranks 41-51

State policy scorecard 2013, ACEEE 2013

% market penetration

29

50

16

31

24

33

51

47

44

0% >15%







Does the imagery matter?











rygnyng rosts





Messages to go with labels

| Message | Agreement | Comments |
|--|------------|---|
| Has the highest environment standards | 14% | |
| An environmentally friendly place with minimal impact on the environment | 27% | Works with people who are environmentally aware |
| Low running costs | 71% | Makes sense to all |
| Healthy living environment | 52% | |
| Minimises waste of energy and water | 38% | |
| FeaturesInsulationOrientation to the sun | 83% 81% | Tangibility matters |

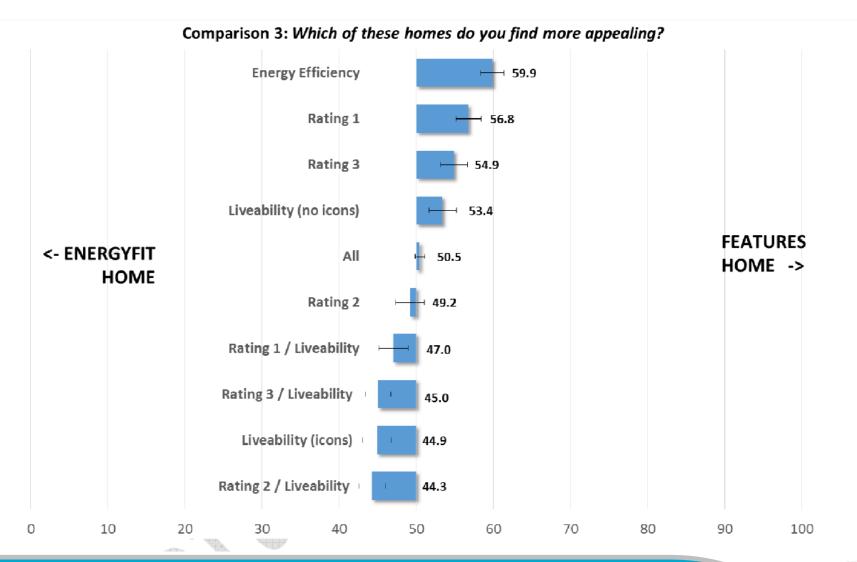
Instinct and Reason, 2014







Which home do you find more appealing?









Third level (missing in action?)

Communicating value and lifestyle narratives







NSW Collaborative Sustainable Housing Initiative:

The chosen dilemma



How do we create mainstream demand for quality homes that are comfortable and healthier to live in, are affordable and have a positive impact on our environment, through the

- demonstration of value
- communication of choices
- provision of encouragement / incentives?

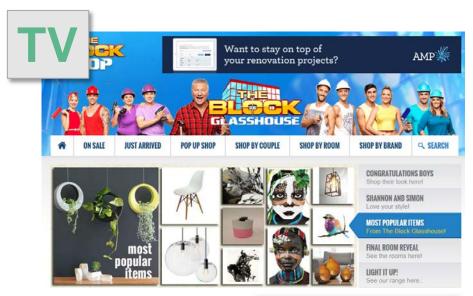




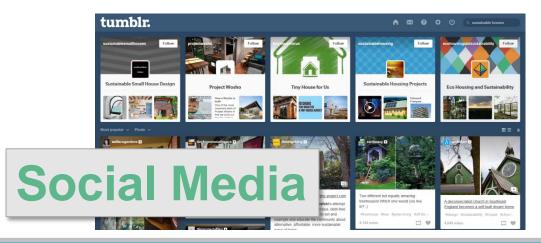




Tools for creating "mainstream demand"



Source: https://www.theblockshop.com.au/





4 renovation trends for 2013







Source: www.realestate.com.au/blog/4-renovation-trends-for-2013/







So what are we doing?

Tradesmen and Friends and idols From To assessors Focus on health, comfort, Focus on energy and lifestyle Rating tools and data Stories and images Professional services DIY crowd sourced Building construction Behaviour and purchasing Information overload Peer support groups Showcase Pay and forget TV for reach **Digital Platform** Social media for impact ✓ Internet for information accessibility







Our solution (coming soon)



Build4Life is a trusted web platform that inspires and enables people to pursue their desired sustainable home and lifestyle.

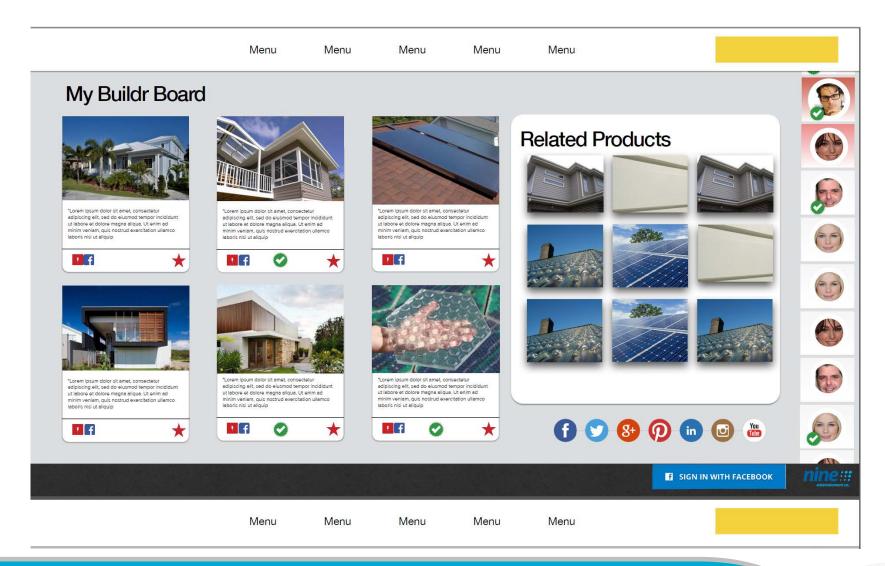
It provides a palette of interactive features that allow people to create, learn and connect with products and services essential to a more comfortable, healthy and affordable home - which also happens to be a sustainable home.







Products and services









Finding/talking to people

Menu



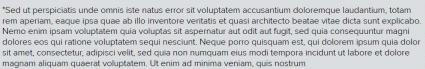
send me a message

Hi Aaron i was really interested in "Lorem ipsum dolor sit amet. consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo conseguat.

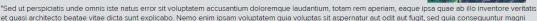
Aaron Reinheart: Renovation power!

Menu

Menu



Menu







Menu





























Menu

Menu

Menu

Menu

Menu







A national consistent framework

- Consistent application around the nation
- Consistent from design to construction to resale
 - e-passbook recommended
- Consistent flow of information between technical (for construction industry) and lifestyle (for consumers) information
- Whole of sustainability (and accessibility?)



Thank you

Energy Technology

Stephen White Energy Efficiency Domain Leader

- t +61 2 4960 6070
- e stephen.d.white@csiro.au
- w www.csiro.au/lorem

ENERGY TECHNOLOGY

www.csiro.au

