

## Building 'evidence' into the architecture: Using Health Facility Guidelines to promote better quality of care and improved design (presentation)

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Centre for Health Assets Australasia

**ACHSE-CHAA NATIONAL CONGRESS 4 – 7 AUGUST 2009, GOLD COAST**

**Building 'evidence' into the architecture:**

**Using Health Facility Guidelines to promote better quality of care and improved design**

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Faculty of the Built Environment, University of New South Wales, Sydney, Australia



# OUTLINE

1. Introduction
2. Design Decision Making – how does this work?
3. What factors must be considered?
4. Developing and Using Design Guidelines such as the AusHFG
5. Conclusions





# 1. INTRODUCTION

Given the increasing complexity of health buildings:

- Changing care models
- Increasingly sophisticated and complex technology
- Rising expectations for high quality care
- Ageing population
- Obesity challenges
- Epidemics, disasters, climate change events, etc





# 1. INTRODUCTION

Given the need to meet the needs of all those who use, work in, pay for health buildings – the ‘stakeholders’ and for these buildings to be:

- safe
- efficient – use limited resources wisely
- healing for patients
- sustainable – also healing the environment
- be a good workplace



# 1. INTRODUCTION

How do we make decisions regarding the design of a built environment that supports these functions?

How do design guidelines support this decision-making process?

- Do they provide an answer to every question?
- Are they a substitute for a good architect and project team?

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## 2. DESIGN DECISION MAKING

Process

Context

Stakeholders







## **2. DESIGN DECISION MAKING**

### **Process**

LAWSON, B. (2006) How designers think: the design process demystified, Oxford, Architectural Press

DUFFY, F. & HUTTON, L. (1998) Architectural knowledge : the idea of a profession, London ; New York, E & FN Spon.

GREEN, J. R. B. (1982) Design, evaluation and information feedback in the health facility planning process

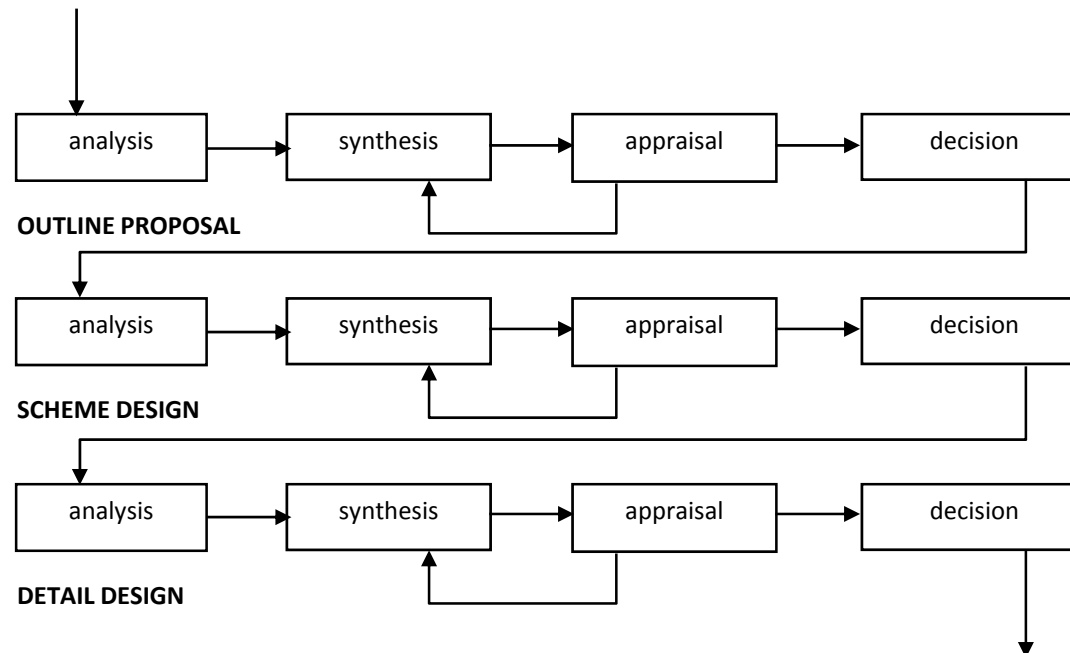
PURVES, G. (2002) Healthy Living Centres: a guide to primary health care design, Oxford, Architectural Press.

TETREAULT, M.-H. & PASSINI, R. (2003) Architects' use of information in designing therapeutic environments. Journal of Architectural and Planning Research, 20:1, 48.



## 2. DESIGN DECISION MAKING

### Process



**Figure 1: Markus/ Maver map of the 'design' process**  
reproduced in Lawson, B. (1990) *How designers think*, Butterworth  
Architecture, London; Boston.

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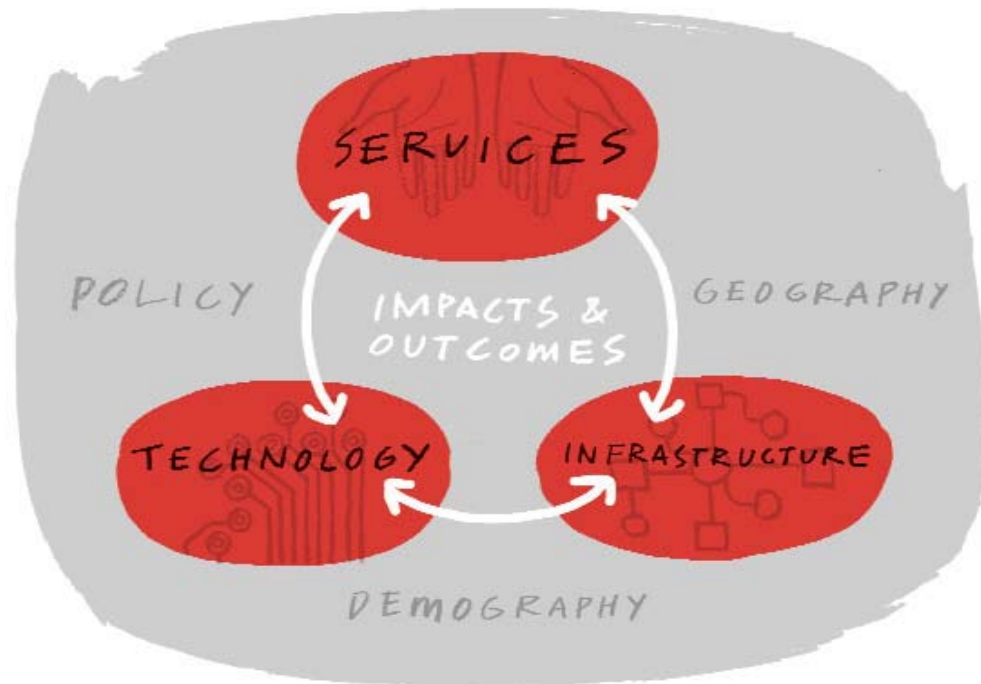
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## 2. DESIGN DECISION MAKING

Context – Health System

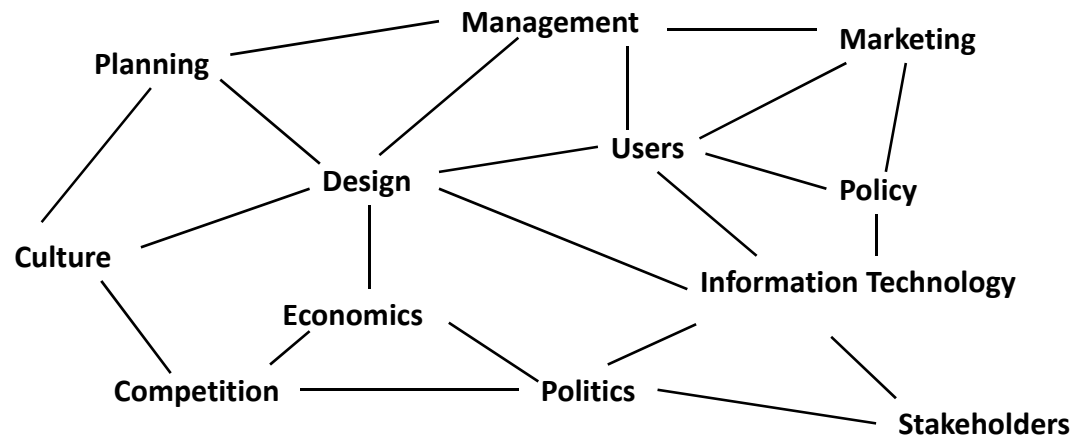


Health and Care Infrastructure, Research and Innovation Centre,  
[www.haciric.org](http://www.haciric.org)

## 2. DESIGN DECISION MAKING

Stakeholders are embedded in a complex system

It is a **SYSTEM**: A tangled web of interdependencies



### The Organizational Ecology of Healthcare Environments

BECKER, F. & CARTHEY, J. (2007) Evidence-based Design: Key Issues in a Collaborative Process. W092: Interdisciplinarity in the Built Environment Procurement Conference. Newcastle, Australia,



## 2. DESIGN DECISION MAKING

How do we prioritise the inputs and make decisions?



"All those in favour say 'Aye'."

"Aye."

"Aye."

"Aye."

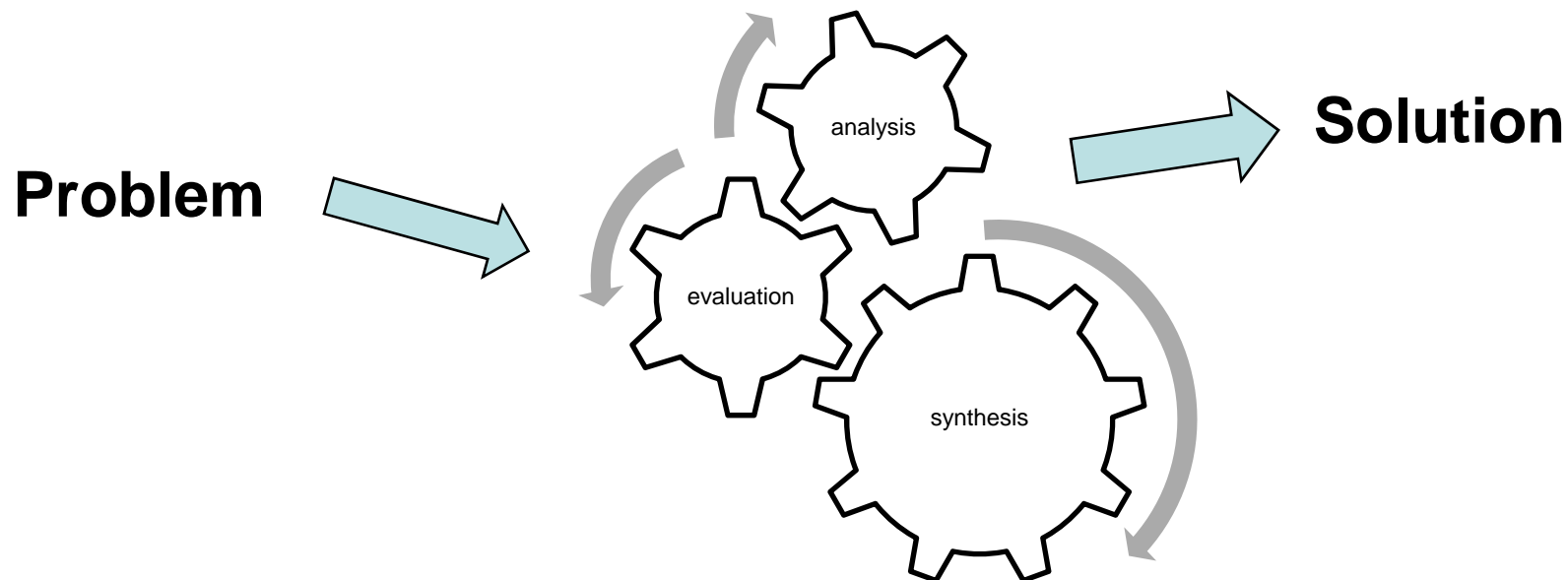
"Aye."

"Aye."

### 3. FACTORS TO BE CONSIDERED

How does the way clinicians work impact on the design of a facility?

How do architects translate functional requirements to form?





### **3. FACTORS TO BE CONSIDERED**

Considerations include:

- Evidence based design
- Healing environments
- Sustainability – heal the environment at the same time
- Innovation – encourage and implement
- New procurement methods – good or bad?
- Whole of life cycle considerations including flexibility and adaptability
- Government policy including funding cycles, initiatives, stimulus packages, politics, etc – who knows what happens next?



### **3. FACTORS TO BE CONSIDERED**

Evidence based design - is this the answer?

What is 'evidence' and is it enough?

- From research (academic and practice-based)
- From experience (designers, users – clinicians, and clients)
- How to balance these?





## **4. DEVELOPING AND USING DESIGN GUIDELINES – e.g. AusHFG**

An approach adopted by many health systems:

UK – Health Building Notes

US – ‘Guidelines for the Design and Construction of Health Facilities by American Institute of Architects’

Netherlands – ‘The General Hospital: Building Guidelines for New Buildings’

Australia – NSW, WA, Victoria, etc



## **4. DEVELOPING AND USING DESIGN GUIDELINES – e.g. AusHFG**

### **AusHFG**

- An initiative of the Australasian Health Infrastructure Alliance
- Developed by CHAA at UNSW since 2005 as nationally consistent recommended standards for the design and construction of Australian and NZ health facilities



## **4. DEVELOPING AND USING DESIGN GUIDELINES – e.g. AusHFG**

### **AusHFG aims:**

- Produce healthcare facilities that will support the required service delivery needs, models of care and operational policies required by health service providers and funding agencies.
- Establish an acceptable standard for all healthcare facilities that will reflect and support the delivery of acceptable and contemporary standards of clinical, design and procurement practices.
- Inform and guide architects, designers, users and client groups and assist them in meeting the requirements of the relevant Health Department, funder or regulator for the design and planning of healthcare facilities.



## **4. DEVELOPING AND USING DESIGN GUIDELINES – e.g. AusHFG**

‘...The credibility of guidelines is in direct proportion to the credibility of the organisation that promulgated them’.

‘How much evidence is sufficient to permit the development of a recommendation from an entity whose credibility is at stake?..... What is the difference between sufficient evidence, a preponderance of evidence and conclusive evidence?’

Hamilton, D. K., 2009 Evidence, Decisions, Guidelines, and Standards *in* HERD Journal Vol.2 No.3, Spring 2009



## **4. DEVELOPING AND USING DESIGN GUIDELINES – the AusHFG**

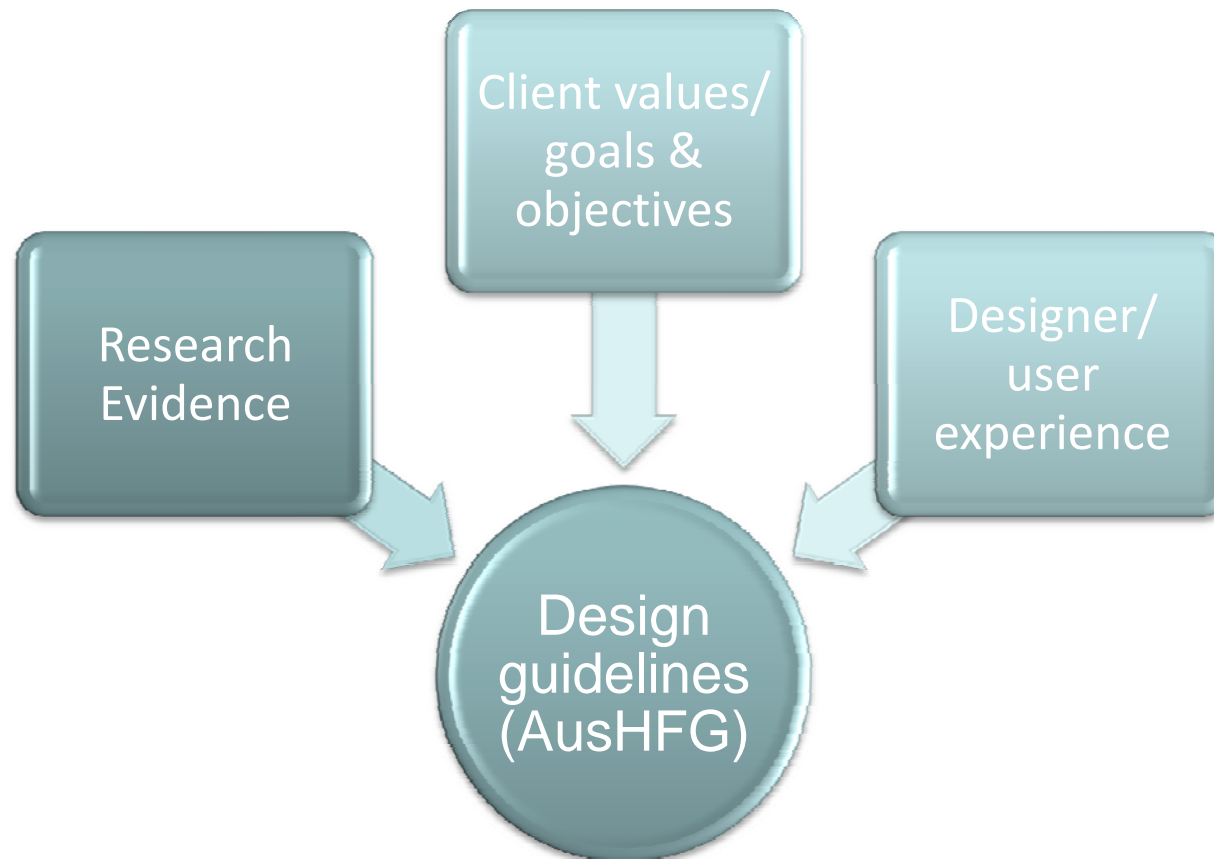
‘Strong guidelines can simplify decisions and codify best practice in a way that satisfies our rational brains’.

‘Designers may not be aware of the frequency with which they access their emotional brains, applying deeply held values to bolster their judgement in the face of complexity.’

Hamilton, D. K., 2009 Evidence, Decisions, Guidelines, and Standards  
*in* HERD Journal Vol.2 No.3, Spring 2009



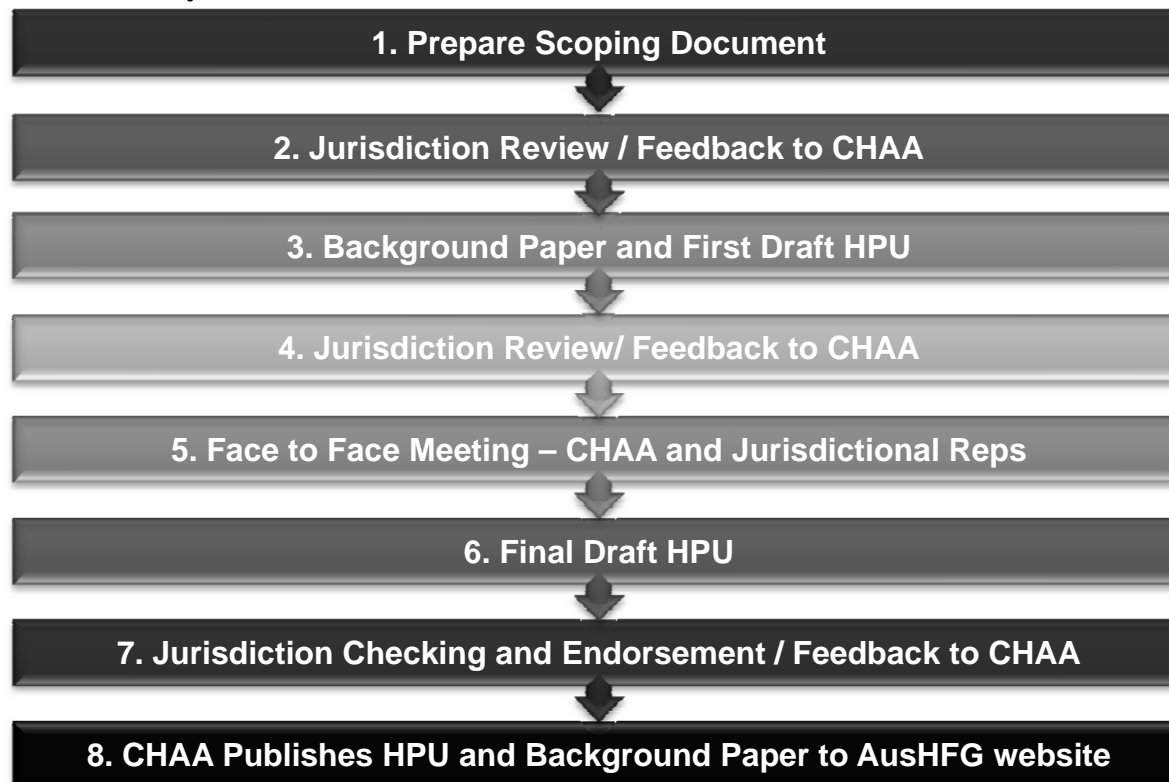
## 4. DEVELOPING AND USING DESIGN GUIDELINES – the AusHFG





## **4. DEVELOPING AND USING DESIGN GUIDELINES – EG AusHFG**

Development Process for AusHFG from 2009







## 5. CONCLUSIONS

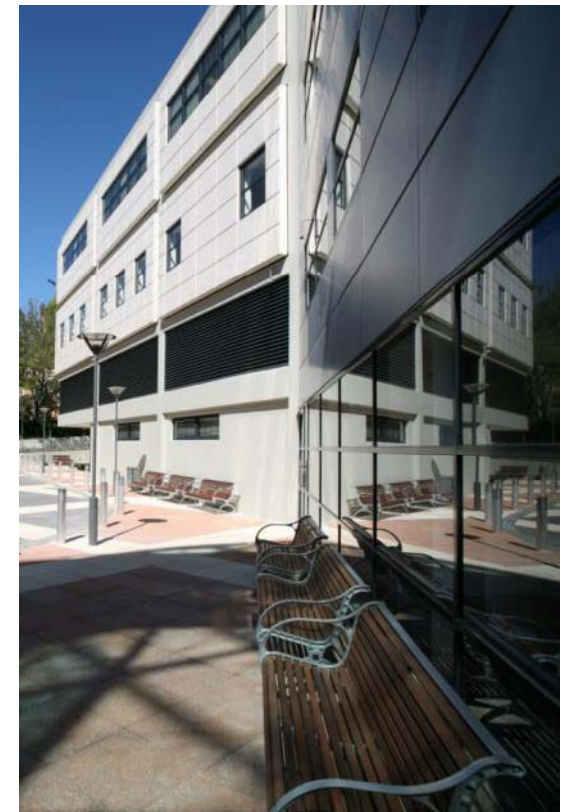
AusHFG are **not the answer** to every question!

Best used to **demonstrate an acceptable standard** of facility provision and to ensure that this is achieved

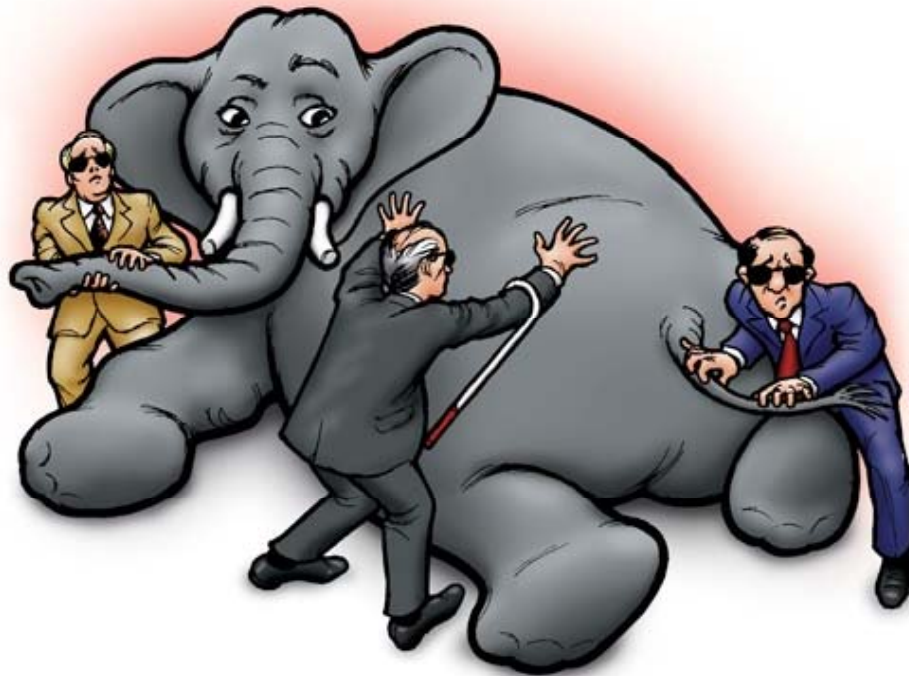
A **starting point** for further investigation of individual project needs and requirements

**Not mandatory!**

Do not replace a good architect/designer.



## 5. CONCLUSIONS



Guidelines – the  
good, the bad and  
the ugly!

Who has the answers  
– who sees the  
whole picture?

*Sometimes it feels like  
this!*

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## 5. CONCLUSIONS

What should it look like?



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## **Australasian Health Facility Guidelines Project**

**[www.healthfacilityguidelines.com.au](http://www.healthfacilityguidelines.com.au)**

### **CHAA.net subscriber network – benefits of joining?**

Regular newsletter (4 per year); information re upcoming events, resources, research, AusHFG releases and calls for reviewers. Register at CHAA website.

Website: [www.chaa.net.au](http://www.chaa.net.au)

Email: [chaa.admin@unsw.edu.au](mailto:chaa.admin@unsw.edu.au)

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