

eDevelopment-Assessment as “Smart ePlanning” for New South Wales (NSW) Australia

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Abstract

Planning reforms in NSW Australia are politicians' favorite mechanism of (promising) fast economic growth and very high levels of livability. The ePlanning component of recent reforms consists of Electronic Housing Codes System for speedy self-assessment of development proposals, online tracking of development applications, interactive buildings online tool to interpret development standards and a google based online mapping tool that shows planning rules applicable to individual land parcels. This paper analyzes the motivations behind the uptake of computer technology in NSW planning system, and the association of that technology with the broader reform agenda. The paper also casts a critical look over the selectiveness of the computer tools chosen by state authorities who are eager to use facilitating, speeding up, efficiency enhancing, automation type of computer tools for mostly day to day planning. They are not very keen at using the collaborative policy making tools that can be used for developing, discussing, visualizing and choosing alternatives.

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1. Introduction

Located in the southeast of the country, NSW is the most populous of the Australian states. Out of the 7.5 million inhabitants in the state, 4.5 million live in the economic powerhouse and primate Australian city of Sydney. The planning system in NSW is largely fashioned on the British statutory planning model.

Modern urban planning in NSW began in 1945 with legislative changes to the Local Government Act 1919 (Park 2010). By the early 1970s, this early legislation was seen as being overly complex and failing to ensure protection of the natural and cultural environment. These concerns led in due course to the creation of a new body (under the 1974 Planning and Environment Commission Act) whose subsequent report formed the basis of the Environmental Planning and Assessment Act (EPAA), 1979 (Pearson, 1994). The 1979 Act afforded greater importance to ecological considerations in land use planning, to public participation in the planning process, and to coordinating planning and development by public and private interests (Hort and Mobbs 1979).

The EPAA introduced a three-tiered system of Environmental Planning Instruments (EPIs) for strategic and statutory planning. The three tiers of the system were Local Environmental Plans (LEPs), Regional Environmental Plans (REPs) and State Environmental Planning Policies (SEPPs). The Act devolved matters of local planning to the local councils. The State Government was made responsible for planning issues of state and regional significance. Overall the EPAA was a significant move forward in the planning area, receiving accolades from various quarters within the state and outside. The Act and the planning system which it accommodates and on which it depends for its implementation have, however, gone through a large number of reforms, abandonment of reforms and re-reforms.

In NSW Australia the planning reforms are being carried out at a very fast pace. The reforms are particularly focused on economic efficiency through making NSW smart and are meant to be achieved through: uniformity in the planning system across jurisdictions, simplicity and speed for the developers, diluting public participation mechanisms, assisting developers through electronic systems (ePlanning), development assessment by private certifiers and flexibility via voluntary mechanisms.

These reforms have been declared necessary because they are taking place internationally and in other parts of Australia. It is claimed they will make NSW and Sydney smarter through speedy and efficient planning leading to higher levels of economic productivity. The State's enthusiasm and rationale are however not shared by all. Some sections of the society feel that the reforms are a power grab by the state government and/or they are an outcome of the strong influence of the development lobby.

Some planning scholars have argued that these planning reforms are an inevitable outcome of the ascendance of Neo-liberal economic order of the past two to three decades. In general, community and environmental organizations are strongly opposed to these reforms.

Ignoring the criticism, those in positions of power have continued with reforms of over a decade in attempts to make the planning system more "efficient" and "streamlined" for achieving fast economic growth. For long, they have argued that planning reform will raise NSW's status and mitigate the often-malicious accusations which are frequently directed at the current system. These convictions tend to force decision-makers to tinker constantly with the planning system. And when the system fails to meet their desires, politicians become more desperate and more frantic in their tinkering.

It is also suspected that the planning system is being used as an easy scapegoat for sluggish economy, housing short-falls, lack of housing affordability etc. A simpler and faster planning system is promised to solve all of those problems. Perhaps it is easier to fiddle with the planning system than to engage the community on controversial topics, tackle difficult and complex problems and take hard decisions.

"ePlanning" is central to the planning reforms that have been enacted in NSW. ePlanning has been translated into speeding up, efficiency enhancing, automating internet-based systems that assist developers in negotiating with the planning system. This paper explains the planning reforms and the "ePlanning" tools adopted in NSW. It also discusses motivations behind the selective use of both reforms and computer tools.

2. Recent key planning reforms in NSW

In NSW the past decade has seen continual tinkering with the balance of power between state and local government, and between the often-conflicting aims of encouraging development and conserving the environment. When Piracha (2010) commented on the 2004/05 and 2007/08 changes, “planning reforms in NSW have gathered pace....they are becoming more urgent and more dramatic,” he was underestimating the pace of reforms to follow. Since then a number of new reforms have been introduced and some of the previous reforms have been abolished and then re-introduced.

The first set of amendments to the EPAA 1979 was introduced in the form of the 1985 Environmental Planning and Assessment (Amendment) Act. New provisions included: greater ministerial power to determine development applications; ministerial powers to direct local councils on financial contributions to be made by developers towards the provision of public amenities; ministerial powers to nominate the determining authorities for major infrastructure projects; restrictions on the power of local planning authorities to impose conditions on (or to refuse) development applications lodged by official state agencies.

In 1993, further amendments to the Act enhanced the planning minister’s approval powers, and excluded local councils from the decision-making process in certain matters (Park 2010). In 1997 came further major amendments including the introduction of the concept of state significant development. Developments declared to be “state significant” in an Environmental Planning Instrument (EPI) were to be determined by the Minister. In the same set of reforms, the concepts of “exempt” and “complying” development were introduced. Very small developments were to be exempt from seeking approvals; and slightly larger complying developments were to face simpler standards-based approval processes (Park 2010). The 1997 reforms constituted the forerunner of more drastic and more controversial reforms to the state planning system which followed.

In the decade following 1997 pace of planning reforms was very fast. In the same period first of so called ePlanning reform measures were introduced. Some of the changes from that period include BASIX (building sustainability index), standardization of planning instruments and changes to Part 3A (major projects), changes to development contribution scheme etc. The latter of those reforms was presaged by the Planning Department

of NSW in a Discussion Paper in late 2007 (DoP, 2007) included concentrated powers at the state level in the hands of the planning minister and the Department of Planning, fast tracking both plan making and development assessment, making local planning across the jurisdictions standard and uniform, and provide simple and multiple channels for the review of assessment decisions. Table 1 describes the reforms that were enacted in the decade following 1997.

In March 2011, the Labour Party lost the NSW state election after sixteen years in power. The winning Liberal-National coalition ran their election campaign (in part) on the back of widespread resentment over Labour's planning reforms – the most controversial of which related to new ministerial powers over major projects. In effect, the minister had been granted the power to determine the fate of any project by declaring it to be of major (state) significance and thereby removing it from the jurisdiction of the local planning authority.

The new state government abolished this provision immediately after coming into power. Shortly after, the government embarked on the much-lauded path of drafting new planning laws and designing a new planning system. Results since then, however, have received a mixed reception from community, institutional and developer quarters alike. Consultation processes have been poorly handled. Some reforms to the existing system will apparently be retained in the new system. Developers advocate some bypassing of local councils in order to eliminate perceived delays in getting decisions on development applications. The proposed new planning law was stalled in the parliament. Lately the government has given up on it and has decided to carry out their reforms through regulations instead.

Since it took power in 2011 the new conservative government in NSW has introduced many reforms to the state planning system, and at the time of writing is considering the introduction of many more. The discussion below is based on the contents of the April 2013 NSW Government White Paper entitled "A New Planning System for NSW" and the conversation around it. The major changes can be summarized as follows:

- Ecologically sustainable development

The mention of ecologically sustainable development (ESD) has been replaced with narrower 'sustainable development' in the proposed new planning system. The precautionary principle, biodiversity, ecological integrity and the polluter pays principle have been omitted altogether. This

reflects the trend in planning in recent years to give pre-eminence to economic development over ecological sustainability.

- Assessment of development applications

The white paper points to a major shift to ‘code-based assessment’ for a range of residential, commercial and industrial development. Council will have to approve a development application in 25 days if it meets performance criteria set out in the Local Plan. The new planning system will aim to increase exempt/complying code-assessed development from the current 23% to 80% in five years. The remaining 20% (high impact) development applications will be merit assessed.

- Rights of local residents to object to unwanted developments

Community participation will take place at the strategic planning stage, rather than the development assessment stage. Concerns have been raised about the communities’ capacity to engage at the plan making stage. Communities tend to engage/react to the concrete development proposals in their local areas. In the proposed planning system, communities will lose their ability to have any say once the local plans have been made.

In 2014 a number of “ePlanning” reform measures were introduced. These measures are described in section 5.

In short, the record shows that at the time of writing, planning in NSW is not taking a cohesive direction. Its path is uncertain and confused – despite frequent official claims that all is well. Reforms appear to be driven by short-term priorities and concessions to powerful lobby groups rather than by concerns for long-term issues. In metropolitan Sydney, the perceived shortage of land supply (for example) seems to be driving a number of reform measures. It seems clear that reforms introduced during the past decade have overwhelmingly favoured development at the expense of a concern for the environment; and have had the effect of entrenching state controls over those available to elected councils at the local level.

3. Why are NSW planning reforms occurring?

Planning systems in many parts of the world including various states in Australia are going through a process of reform for increased efficiency. These reforms can be seen as an inevitable outcome of the ascendance of neo-liberal political economic ideology (Gleeson & Low, 2000; Hall and

Hubbard, 1989; McGuirk et. al., 1996). The thrust of the reforms is on speeding up the strategic land use planning and the development assessment processes. The mechanisms employed to achieve those ends are simplification, fast tracking, uniformity of plans and processes across jurisdictions, greater role of ePlanning, exempting development from assessment, private certification, voluntary development contribution and speedy reviews of assessment outcomes by a myriad of entities.

Table 1. Summary of the planning reforms in NSW (1997 – 2007)

Planning Issue	Reform	Details
ESD	BASIX- building sustainability index	Internet based assessment for sustainability policy compliance
Major Developments	Major projects assessment system	Centralization of powers in the hands of the state Planning Minister (and the Planning Department)
	Independent panels	Transfer of review and approval authority from local governments to independent panels
Land Use Planning	Standard Local Environmental Plan (LEP)	Prescription of standard template for strategic planning at local level
	LEP Review Panel	Withdrawal of all delegated powers from local councils.
	Gateway review	Fast tracking - increased certainty in rezoning
Development Assessment	Development Control Plans	Minister empowered to direct councils
	Development Contributions	More flexibility and introduction of voluntary mechanisms
	Standard Codes (2007-08)	Dramatic expansion in exempt and complying development
	Private Certification	Privatization of development assessment planning function
	Dispute Resolution	Reduced role of Land and Environment Court.
DA Technology	ePlanning	Online submission and tracking of development assessment.

. Source: Extracted from Piracha 2010

The representative organizations of the businesses in general and of developers in particular (UDIA, 2008; PCA, 2008) have strongly endorsed these reforms for their economic efficiency objectives. Organizations representing the interests of the community and the environment (Local Government Association of NSW, 2008; Natural Conservation Council of

NSW, 2008) have on the other hand been somewhat dismayed by these changes. Their worries are availability of less than adequate amount of time for carefully considering environmental consequences and reduced opportunities for inputs from the local community. The NSW reforms are driven by the quest for greater economic efficiency. This driver could be diametrically opposite to what adapting to climate change may dictate (Guardian, 2007). It should be a cause of consternation if the reforms weaken the opportunity to address a crucial issue like climate change.

In order to understand the direction of the current reform process in the NSW, terms and concepts such as neo-liberalism, corporate managerialism, fast-tracking/ slow-tracking of development assessment need to be discussed. Gleeson and Low (2000) argue that, in line with the broader political economic direction in Australia, planning is being gradually abolished. They maintain that there is no room for comprehensive planning that encompasses socioeconomic and environmental aspects in the overall climate of neo-liberalism and corporate managerialism (Stilwell, 1997). Owen (2001) pointed at the emergence of entrepreneurial urban governance. Managerial approaches to urban governance focus on the provision of welfare and municipal services, and this has been replaced by urban entrepreneurialism that fosters and encourages local growth and economic development (see explanation in Owen, 2001).

Forster (1999) has pointed to globalization being used as a steamroller in urban policy. It is argued that globalization has left urban policy makers with little choice but to reduce the role of public sector provisions and to curtail planning restrictions on development. Stilwell (1997) refers to this situation in terms of TINA (“there is no alternative”) syndrome. In Forster’s (1999) view, in a TINA scenario, cities compete against one another to have reduced spending on public services as an inevitable result of globalization. Furthermore, TINA leads to social and environmental considerations being regarded as unaffordable luxuries.

According to Forster, critics of the TINA syndrome point out that the retreat of public sector intervention and provisions will lead to increased inequity resulting in reductions in livability and stability which are the biggest assets of Australian cities. Those critics, notably Stilwell (1997), also point out that proponents of TINA often forget to incorporate a very important aspect of globalization i.e. promoting and upholding international standards in the areas of environmental protection, human rights, and labour conditions.

The common approach by governments to reduce delays in development approval, especially for major projects, is through "fast tracking" which often mean "circumventing the impact assessment and approval procedures already in place, to reduce costs of obtaining approval for a project." Fast tracking is difficult to justify as it can amount to "effectively bypassing the relevant local government bodies and minimizing the opportunities for public involvement" (Cocks, 1992, p.167).

The opposite philosophy to fast tracking is "slow tracking" which means "being prepared to take whatever time is required to ensure that the social and environmental impacts of development are reduced to minimal or acceptable levels" (Cocks, 1992, p.167). There may be situations where this approach may be more valid, especially where new technologies are involved or where the environmental, economic or social effects of development are not clearly understood. "Slow tracking" as an alternative to 'fast tracking' should, therefore, not be ruled out as an alternative, despite the obvious time delays involved. As Cocks suggests, "for the domestic economy, this does not constitute a commercial disadvantage provided that all companies are in the same boat". (ibid)

It can be concluded from the discussion in this section that NSW planning reforms have some neo-liberal underpinnings. Clearly, there is a trend towards the fast-tracking of development applications by avoiding proper community consultation and evaluation of environmental considerations. The reforms are divisive and have polarized stakeholders – between developers who are strongly in favour and sections of the public and non-Government Organisations who are strongly opposed.

4. Computer use in planning

In the 1950s, population and transportation data were routinely processed by computers. What quickly followed was various simulation modelling initiatives (Batty, 1996). It was evident that those grand-scale operations, run on mainframe computers, had very limited utility (Piracha, 2002). Starting from 1970s both the profession of planning as well as computer hardware and software went through a fundamental change. Slowing economies of the West forced planning to be more humble, bottom-up and small-scale and more appropriate for dealing structural adjustments. In the 1980s and 1990s the computers became smaller, inexpensive and more powerful. In the 1990s the PC computers were being extensively used for

routine tasks in planning (Batty, 1995). At this time there was discussion about using computers at the strategic level, in the form of a Planning-Support System (PSS). Wegner (1994) argued that modelling in planning was a serious consideration. Batty (1995) provided a famous sketch of how a PSS would look in the future. Kammeier (1999) discussed the tools that could be used to build an incremental PSS. A broad consensus evolved that the future for computer applications in strategic planning was bright. Piracha and Kammeier (2002) argued that PSS has to be an innovative blend of computing tools that matches specific planning problems.

Bishop (1997) hinted that that a PSS was not going to be a single program that could be applied to all planning problems. Batty (1995 and 1996) envisioned a PSS for strategic planning purposes that involved use of a combination of different computer tools. Klosterman (2001) moved the discussion forward through his work on integration of GIS, models and visualization tools. He asserted that most planners use computers for general office work such as document processing, budgeting, record-keeping, and not for planning functions such as forecasting, analysis and evaluation. Klosterman also observed that even GIS was used for routine mapping tasks such as permit processing and not for planning analysis or evaluation. The GIS functionality, and the capability of other tools for strategic planning, has since improved (Maantay, 2006; Pamuk, 2006).

Wyatt (1999) had listed and analysed the computer-aided policy making tools being used for strategic planning. He considered such tools to be very useful for visioning, community participation and collaborative planning leading to better human-oriented policy-making and social cohesion. Wyatt analysed CyberQuest, STRAD, ExpertChoice, and Strategizer as strategic planning tools. Short extracts of his analyses of these programs are provided below:

CyberQuest is brainstorming software that is useful in the “think” phase of the policy-making. It is advanced exploratory software with multimedia attributes. It comes with two associated programs which allow the users to hop between spreadsheets, painting and drawing software, the internet and other aids to analysis. It is highly exploratory software and has been widely used for triggering in the users’ minds a plethora of potential policy suggestions (Wyatt, 1999 p92).

STRAD (Strategic Adviser) is close to the “choose” part of the policy making process. This approach involves gathering a group of people in workshops and conducting discussions about the policy making problem. The

workshop is helped by a facilitator and usual workshop brainstorming material. The software alerts users to the consequences of implementing various policies and examines the nature, extent of uncertainty surrounding the problem. It keeps record of the relative importance and urgency of policy-making issues and evaluates a number of possible, sequential chain of actions. It investigates how different policies impact each other. This software has been widely used to address strategic planning issues (Wyatt, 1999 p114).

Expert Choice is mostly concerned with evaluating alternatives. It helps policymakers choose by converting their ratings for alternative policies into ratio scale scores. The package also monitors inconsistencies in the users' ratings. It has the ability to incorporate the impacts on policy choice of different scenarios and their likelihoods into the goals. It can consider impact of players' attitudes. The software has sensitivity testing capabilities showing impact of small changes in ratings on policy conclusions (Wyatt, 1999 p137).

Strategizer rates alternative policies using a simulated neural network. The program trains itself to replicate the way in which past users make policy. The program has the capability to anticipate how different groups of people make policy. This capability is very useful for determining how various community groups might rate different policies (Wyatt, 1999 p165).

Wyatt (1999) implies that the above listed tools are valuable for anyone seeking to make better human-oriented policy. Such tools are not used for NSW planning.

Klosterman's (1999) "What if?" is a widely used collaborative planning support system. It uses GIS data to support community based processes and collective decision-making. The software carries out land use suitability analysis, projection of land-use demands and allocates the demand to the most suitable locations. It helps users to prepare alternative development scenarios. It then determines the likely impacts of those scenarios on land use, population and employment. The outputs from this tool are easily understandable maps and reports.

The discussion in the following section will demonstrate that the collaborative policy-making and strategic planning computer tools have not been advocated by Government in planning reforms for NSW. The recent drive to promote ePlanning as part of the reforms makes no reference to them.

The state government has paid little interest to computer-aided collaborative planning.

5. ePlanning for smart Sydney/NSW

Computer methods and tools have been used in urban planning for nearly half a century. The nature, type, purpose and ubiquity of their use has changed over time as a result of changes in planning theory and practice and dramatic increases in computing power and sophistication of software. A vast array of computing applications, both planning specific and generic, are now routinely used by planning authorities all over the world.

Planning methods and related computer applications can be placed in two broad categories: “generic” and “(strategic) planning specific”. The examples of generic tools are mapping, databases, spreadsheets, scheduling software and in more recent times internet-based data collection or delivery of services. The generic tools are widely (but not necessarily exclusively) used for day to day planning including development assessment. The planning (process) specific tools are closely associated with collaborative strategic planning. They often involve participatory dialogue and visioning, preparation of alternative courses of action, visualization and evaluation of alternatives, finding common ground among stakeholders, and generating consensus on local development.

The use of generic computer tools to increase general efficiency and to facilitate development assessment is strongly supported by the NSW state planning. Planning reforms being pursued in NSW are very actively promoting eDevelopment-Assessment (electronic lodgement, tracking and assessment of development applications) (DoP 2007; DAF 2005; DLGPSR 2007). Use of other generic computer applications to facilitate, expedite and standardize routine day to day planning is actively being pursued.

However, the reforms have not advocated the incorporation of any planning-specific tools to engage stakeholders in collaborative strategic policy making. Computer aided policy-making used for visioning, visualizing and assessing alternatives (Wyatt, 1999) is not part of the planning reform agenda in Australia in general and in NSW specifically.

According to reform documents in NSW (DoP, 2007) electronic planning is used around the world and Australia to improve customer service,

deliver simple experience for users (developers) and to make it easier for business to find out where to invest. Table 2 summarizes the objectives, applications and recommendations for electronic planning in the planning reforms in NSW.

Table 2. Electronic Planning in NSW

Objectives	Applications	Recommendations
Improve customer service by helping users find information that is relevant to them, help them prepare an application and speed up processing times	Understanding the status of an application – tracking a DA through the assessment process Providing information to users e.g. Section 149 planning certificates, intended to provide a useful summary of the opportunities and hazards for a site.	The SIX Viewer should be implemented as the platform for e-planning to collate, integrate, manage and display planning information from councils and relevant NSW Government agencies to facilitate and accelerate the adoption of ePlanning initiatives.
Deliver a simple experience for users – yet maintain community expectations that development will be sensitive to the location and environment;	Preparing, lodging and tracking a development application	Protocols should be developed to ensure standard approaches to the exchange and the organisation of planning information.
Provide useful information on development activity and performance back to decision makers; and	Referral of information from state departments and agencies (in assessment process)	More effective delivery of the planning system using ePlanning should be explored in:
Make it easier for business to find out where to invest and create jobs.	Tools for electronic preparation, submission, tracking and assessment to improve the way that LEPs are processed. Use of standard computer tools to facilitate information exchange between the levels of government and between local governments and private certifiers.	<ul style="list-style-type: none"> • e-DAs. • Exempt and complying codes. • Access to Section 149 certificates. • The tracking of LEPs.

. Extracted from (DoP, 2007)

Contents of table 2 clearly demonstrate ePlanning for NSW is about facilitating development assessment, improving general office efficiency and

use of prescribed standardizing tools. Participatory or collaborative planning practices are not anticipated within the NSW ePlanning drive.

In 2014 the NSW state planning agency (NSW Planning and Environment) introduced a spat of “ePlanning” tools to develop a smart NSW and smart Sydney (NSW Planning and Environment, 2014). A quick appraisal of the tools demonstrates that they are mere office efficiency enhancing and client (developer) assistance automation mechanisms. A brief description of these tools is given below.

- Application Tracking

Application Tracking is an online system that allows developers to monitor progress in their developments. The objective of this system is to fast-track, simplify and assist development approvals process. Speed, simplicity and encouraging building construction activity are larger goals of the planning system reforms of the past 10-15 years as well. The system is currently being trialled in some local councils in NSW. NSW state planning departments makes grants available to encourage local councils to participate (NSW Planning and Environment, 2014).

- Electronic Housing Code

The Electronic Housing Code (EHC) is an online system that allows developers to determine if they can build any planning approvals (exempt development) or using a fast-tracked approval process (complying development). Developers can lodge and track complying development applications online. Developers as result enjoy a fast and standardised system accessible anywhere anytime. It is also free of charge. It is worth noting here that complying development is also closely associated with privatization of development approvals through private certifiers (NSW Planning and Environment, 2014).

- Interactive Buildings

The Interactive Buildings is a free online tool that will assist developers to comprehend development standards for common building works that require no planning approvals (exempt development). Using this tool, prospective developers will be able receive advice in simple language on what development standards apply to various parts of residential, commercial or industrial buildings. All they will need to do is clicking on the relevant part of the building (NSW Planning and Environment, 2014).

- Planning Viewer

The Planning Viewer is a free online tool that shows what planning rules apply to properties in NSW. Operating on Google-maps technology it assists prospective developers in rapidly discovering what planning rules apply to individual land parcels. It also enables developers to search for properties that have certain planning rules applicable to them. For example it allows developers to quickly see where multistorey buildings are permitted (NSW Planning and Environment, 2014).

Contents of other planning reform related documents from NSW (DoP, 2008; NSW Planning and Environment, 2014) and the rest of the country can be cited to prove that computers-use is for routine planning only. The capacity for online planning services in Australia has not been utilized for public participatory planning. Indeed, online participatory planning mechanisms are inconsistent with the centralizing of planning and the reduction of community participation which are being pursued in planning reforms (Piracha, 2008). Nowhere do we see any mention of collaborative community planning helped by computer-aided policy making tools such as CyberQuest, STRAD, ExpertChoice, Strategizer etc

6. Conclusions

Over the past decade, NSW state government has enacted reforms expressly aimed at streamlining and simplifying planning frameworks criticised as uncompetitive and overly-regulatory. Reforms have, broadly, targeted the 'cutting of red tape' in order to make the system more developer-friendly and to stimulate investment. The steps to achieve efficiency gains have included: reducing the number of local government planning authorities; introducing key performance indicators to drive competitiveness through planning agencies; narrowing time limits for determining development assessment; expanding private certification; and adding to the list of developments that do not require formal approvals.

Due to their economic efficiency focus, the Australian planning reforms have been broadly supported by housing industry lobbyists. Voices of dissent against reforms have been strongly raised by the local communities and environmental organizations, who point to a lack of proper consideration of public participation and sustainability issues.

The reforms lay a strong emphasis on use of electronic planning. However, the entire focus of the state is on the use of technology to facilitate routine planning. Electronic lodgement, tracking, assessment of development application seems to be at the heart of state's efforts in this area. One does not find even any mention of computer tools that can be used for collaborative strategic planning and/or policy-making in the state's vision for planning systems.

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