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The Sustainable Development Goals Under Climate Change

A CALL TO ACTION FOR AUSTRALIAN WATER PROFESSIONALS

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ABSTRACT

Water professionals care deeply about the goals of sustainable development; it is part of our professional DNA. Of the 17 United Nations' Sustainable Development Goals (SDGs), SDG 13 'Take urgent action to combat climate change and its impacts' is a critical driver of the challenges faced by other goals. Under climate change, many SDGs become more difficult to achieve.

The Ozwater'18 workshop *Stretching the Sustainable Development Goals* engaged a diverse group of water professionals to share their ideas about how the Australian water sector can be more proactive in driving progress on the SDGs. A large number of creative ideas were generated. Mapping these proposals to capacity building frameworks highlights the professional and cultural domains of capacity building as the most fruitful areas for increased attention.

Climate change widens the gap to achieving the SDGs in many sectors. Water plays a critical role in translating climate change into disadvantage, for example, through flood, drought, habitat loss, and health. The water sector is therefore essential to leading the transformations needed to achieve the SDGs. Australian water professionals have a signature capacity and a unique responsibility to lead community responses to the SDGs under climate change.

Keywords: Governance and policy, capacity building, sustainable development goals, climate change

INTRODUCTION

Sustainable development calls for balanced progress on economic development, social inclusion and environmental sustainability - across nations and generations. The 17 Sustainable Development Goals (SDGs) form part of the United Nations' 2030 Agenda for Sustainable Development, adopted in 2015. To emphasise the vital role of the water sector in achieving the SDGs, the UN has declared a concurrent International Decade for Action: Water for Sustainable Development 2018-2028.

The Australian water sector has touch-points across all 17 SDGs and has a unique position of influence and capacity to support beneficial change in our communities. The sector has significant opportunity for top-down influence, although the effectiveness is highly variable across political cycles. Across the sector, considerable effort has been made to clarify the relationship between sector activities and the SDGs, for example, through the assembly of organisation-level case studies. However, there is less clarity about how the Australian water sector can make an impact at the national and international level, and what actions can best promote substantive progress.

The Ozwater'18 workshop *Stretching the SDGs* was convened to explore the perspectives of water professionals. We asked participants to share and develop their ideas about making progress on the SDGs – deploying their extensive and diverse knowledge as experienced individuals, unconstrained by organisational objectives. Starting from the interconnectedness of all 17 SDGs, workshop participants were asked to consider the

challenges and opportunities for the water sector and what needs to be done.

This paper presents our analysis of water professionals' views gathered at the workshop. By drawing links with capacity building frameworks for sustainability the paper raises some new issues about the potential for water professionals to play a more prominent role in leading progress on the SDGs. These ideas are advanced as a new agenda for Australian water professionals.

APPROACH

The Ozwater'18 workshop was convened by the authors on behalf of the Australian Water Association's SDG Specialist Network and the International Water Association Australia. Around 80 water professionals participated in the workshop, representing a range of organisations, disciplines and fields of interest. For the purpose of the workshop, participants self-selected into one of eight themes. Each of the eight workshop themes addressed a unique pair of SDGs plus the Water SDG, which was common to all themes. Themes explored were: resilient infrastructure; healthy, nourished communities; productive ecosystems; partnerships for action; closing the gap; sustainable living; work and social inclusion; and equal opportunity.

Workshop participants were asked to address three questions in relation to their theme:

1. The key influences of each SDG on the water sector. What should we be communicating to other sectors about consequences, costs and impacts in the water sector?
2. What are the most impactful ways in which the water sector can exert a positive influence on each SDG?
3. What needs to be done, and what are the barriers and enablers for beneficial progress?

Participants generated around 300 ideas. These have been analysed using open coding techniques, providing a rich account of the shared perspectives of water professionals.

The workshop panel, chaired by Mr Tony Slatyer, and including The Hon Karlene Maywald, Distinguished Professor Cynthia Mitchell and Ms Lucia Cade, led a discussion of the key idea, or signature action, proposed by each participant group. The workshop participants focused on how to strengthen the water sector's capacity to make and influence beneficial change.

All of the signature actions proposed by participants related to building the individual and collective capacity of water professionals to support progress on the SDGs.

This finding was surprising, given the water sector's current approach in providing organisation-level examples and case studies. Participants suggested that there were other areas of capacity that could be usefully strengthened; areas that had so far received much less attention.

COMMUNITY CAPACITY FOR CHANGE

To explore these water professionals' ideas about capacity building in the water sector, we selected an established framework for describing community capacity for change.

Writing about capacity building to support the change to low-carbon communities, Middlemiss and Parrish (2010) propose that professionals can act as a cross-cutting community. Recognising their professionalism as a unifying feature, their personal capacity to tackle environmental challenges confers on them a responsibility to act. Using the example of the Bollington Carbon Revolution, Middlemiss and Parrish (2010) describe how a group of local professionals brought "cultural coherence" to the project. They conclude, from their analysis of a number of similar community change initiatives, that four capacities are required in combination to enable change: cultural, organisational, infrastructural and personal (see Figure 1). These capacities are described as mutually reinforcing and therefore all four working together are essential to success.

The framework is just one of many dealing with capacity building for sustainable development. It is consistent with the main features of other accepted approaches, such as human-centred design. For the purposes of this paper, we have adapted the framework to express the personal dimension of capacity building as 'professional', reflecting the community of water professionals referred to by workshop participants.

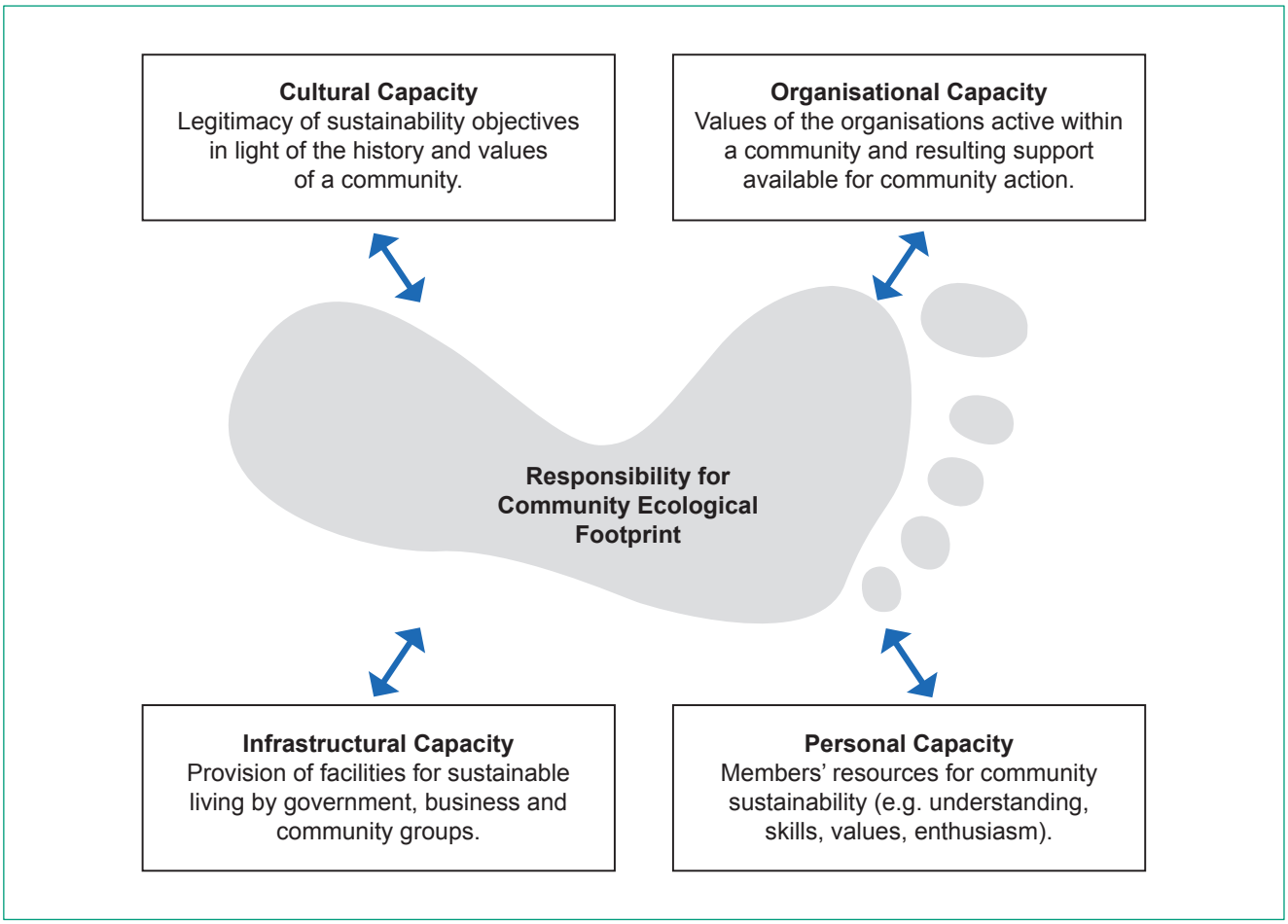


Figure 1: Four capacities essential to change[1]

[1] Reprinted from Energy Policy, Vol 38, Middlemiss, L & Parrish, BD, Building capacity for low-carbon communities: The role of grassroots initiatives, Pages 7559-7566, Copyright (2010), with permission from Elsevier

DETAILED FINDINGS

Mapping the ideas proposed by workshop participants to the framework in Figure 1, we explore which capacities are most in need of strengthening.

Figure 2 presents participants' ideas in response to each of three questions posed at the workshop:

1. What should we be communicating to other sectors about consequences, costs and impacts in the water sector?

2. What are the most impactful ways in which the water sector can exert a positive influence on each SDG?

3. What needs to be done, and what are the barriers and enablers for beneficial progress?

Each idea has been mapped to one of the four capacities required to build sustainable development indicated by the framework shown in Figure 1, namely, cultural, organisational, infrastructural and professional. Figure 2 shows, for each question, the number of ideas provided in response, and the capacity to which the idea relates.

Workshop participants supplied around 300 ideas in response to the three questions, and Figure 2 shows that these ideas placed a strong emphasis on the need for increased contribution from cultural and professional capacities in promoting beneficial change. Overall, 40% of suggestions called for building cultural capacity, 36% for building professional capacity, 12% for building infrastructural capacity and 11% for building organisational capacity.

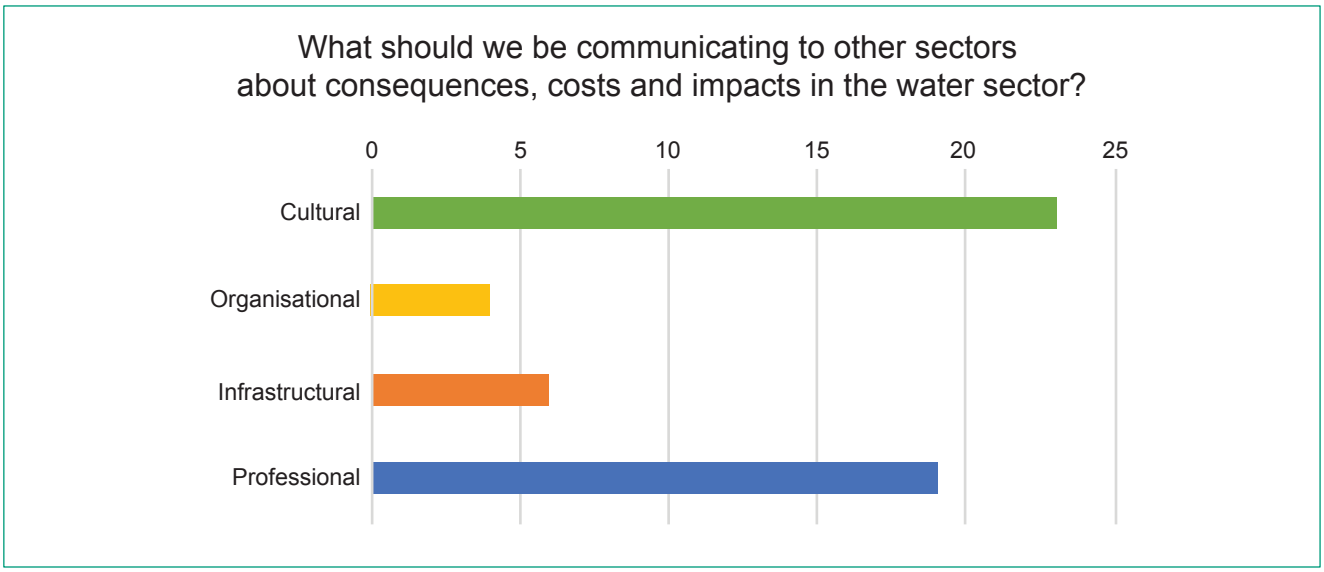
The following sections present participants' ideas in relation to each capacity.

Cultural capacity

Building cultural capacity speaks to the "legitimacy of sustainability objectives in light of the history and values of a community" (see Figure 1). Participants stressed the importance of community perceptions about the value of water in terms of a wider set of benefits: its role in amenity, nourishment and quality of life and its limited supply. Fit for purpose principles, including potable reuse, need to be advanced. Narratives are required to engender precautionary approaches and emphasise the critical role water plays in community development – education, empowerment of women, health and hygiene and opportunities for work.

Cultural contexts need to be appreciated in a respectful and open-minded way. Approaches should include the disadvantaged, and promote the rights of indigenous groups.

End-users, and especially marginalised groups, should be engaged in water solutions and careers. Solutions should be sensitive to user drivers and perceptions and should harness cooperation, for example, through behaviour change.



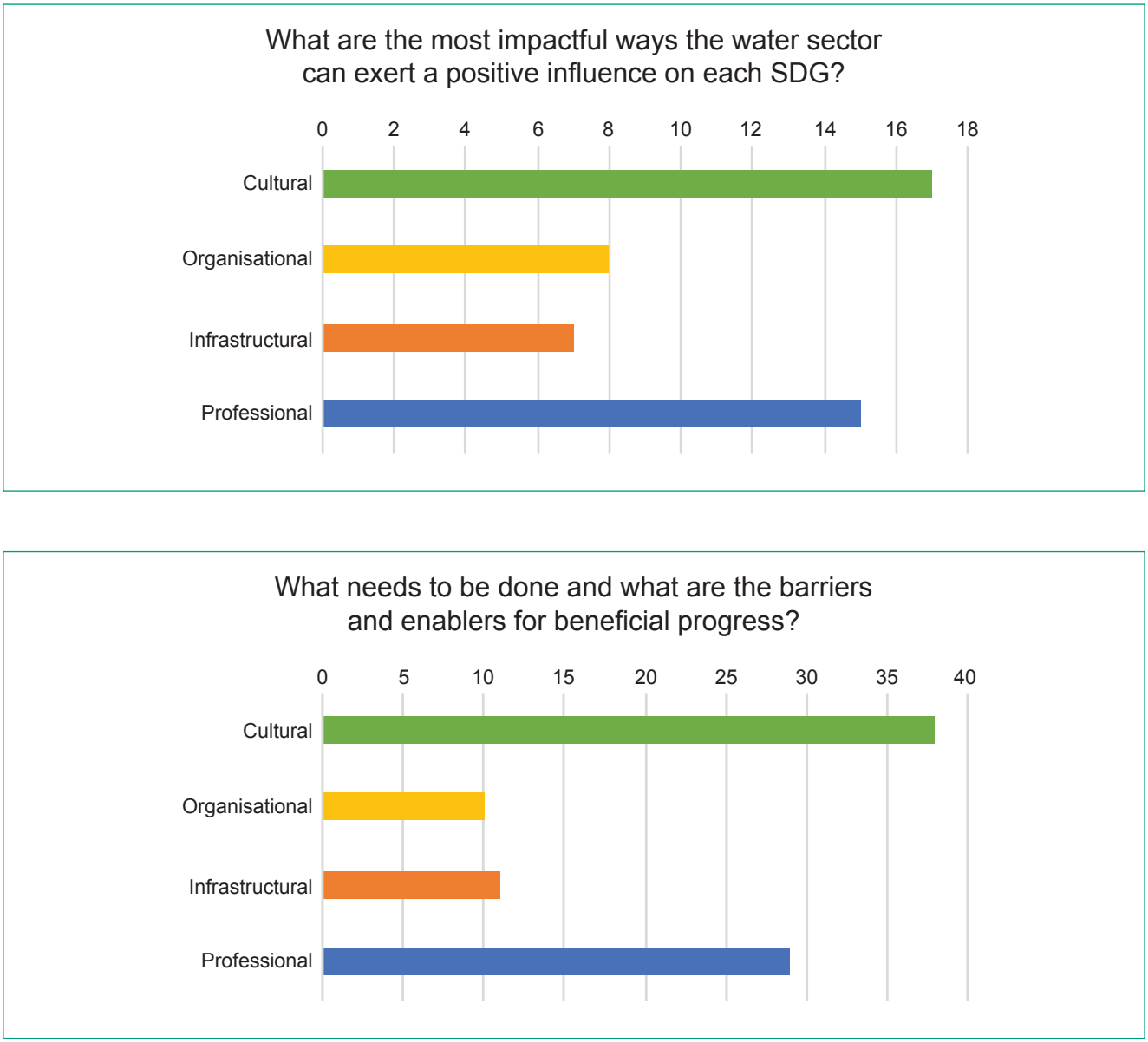


Figure 2: Number of participant responses according to each of the four capacities for making change

Water sector objectives should embody a wider range of community objectives, reflective of the SDG. The extent of potential impact available through water should be promoted, and water should be viewed as a social investment.

Professional capacity

Building professional capacity stresses the contribution of professionals' skills, values, understanding and enthusiasm as applied to tasks and relationships (see Figure 1 and Girgis 2007).

Participants proposed that water professionals should be less technical and distant, and more closely connected with and valued by communities. They called for more collaborative approaches and sharing of expertise and knowledge. Professionals are well placed to provide facilitation among stakeholder groups, engaging the community on problem definition and solutions.

Participants stressed the importance of knowledge sharing and co-development, and ensuring solutions are more widely accessible and amenable to improvement through open source approaches. Professionals' capacity for considering social impacts should be expanded, through all levels of curricula, sharing of experiences and leadership by example. This sensitivity to social impact should be complemented by a capacity to build trust in diverse working relationships, and a new appetite for flexible, agile and leapfrog solutions.

New targets would reposition professional aims to elevate sustainable development and influence public policy and community opinion. Professional practice would reflect this shift with a stronger emphasis on emissions mitigation and delivering on a wider set of benefits than low cost, for example. To develop these benefits, future practice should be evidence-based, and encourage diversity through careers, partnerships, inputs and collaboration.

Infrastructural capacity

Infrastructural capacity calls for provision of facilities for sustainable living (see Figure 1). Infrastructure can create readiness for further sustainability initiatives; at its most basic, the rule of law, through to sophisticated platforms for data sharing.

Participants identified the core role of water in infrastructure and on an expanded view, its relationship to less commonly thought of aspects, such as ecosystem services, natural systems for water management, and greening and biodiversity for climate mitigation. This wider view of water's potential to contribute should be strengthened, for example, through advances in technology options, such as energy efficiency or algal biofuel, and greater consideration of water in consumer choices and city shaping.

Participants called for investment opportunities to align more strongly with the SDGs and social impact, and for new approaches in investment, for example, promoting synergies among investments, cross-sectoral investment and tradable benefits.

Organisational capacity

Organisational capacity reflects the "values of the organisations active within a community and resulting support available for community action" (see Figure 1). Perhaps surprisingly, this capacity received the least attention from participants. This may be an indication of the perceived degree of attention already paid to organisational capacity and perception of unfilled gaps elsewhere.

Indeed, most organisational capacity suggestions addressed the delivery or creation of opportunities for other forms of capacity building. For example, the provision of knowledge sharing platforms, increased collaboration across sectors, and shift in thinking towards consideration of the global impact of activities.

Stronger organisational focus related to social responsibility, including suggestions about B Corporation certification, social entrepreneurship and outreach education. Twinning with utilities in emerging economies was an example of global outreach. Organisations should also encourage women to participate in the water sector; through both employment and engagement.

Finally, organisations should deliver on their opportunity to walk the talk and lead by example.

CONCLUSION – A CALL TO ARMS FOR WATER PROFESSIONALS

Capacity building

Together, water professionals' ideas on how to advance the SDGs constitute a new, complementary capacity building agenda for the Australian water sector. While organisational and infrastructural capacities have been the focus of recent attention, workshop participants suggest untapped gains may be available through strengthened cultural and professional capacities.

Participants in the Ozwater'18 workshop called for the water sector to lead and facilitate more extensive and deeper engagement across sectors and among stakeholders. These proposals were more intentional than simple introductions, focusing on diversity, shared knowledge, strong evidence, co-development, flexibility and agility.

Pursuing new connections at the individual professional level has the potential to create additional value, beyond organisational and sectoral efforts. Individual connections are more open and flexible, more inclusive, extensive, serendipitous and potentially disruptive. They are relatively unconstrained by organisational and institutional agenda.

Water professionals also have a role to play in building cultural capacity. Workshop participants stressed, in particular, the power of stories, or narratives, in reframing community opinion and garnering support for change. By illustrating key concepts, such as water as a public good and the implications of uncertainty and climate change, stories can provide a venue for fruitful engagement and knowledge exchange.

Narratives can also engender support for and adoption of infrastructural capacity, for example, the role of real-time information in consumer decision-making. Behavioural change depends on information and how we respond to it; and we are guided by examples and norms.

Professional Role

Renewed attention to capacity building presents an exciting opportunity to reinvigorate and extend the role of the water professional.

The Australian water sector embodies a large number of individual water professionals. A defining feature of a profession is its duty towards the community, extending beyond self-interest and the interests of employers and institutions (Professions Australia 2019). For professionals, their recognised capacity to tackle challenges within their domain of expertise, confers on them a responsibility to act in the public interest (see, for comparison, Evans 2009). According to the Professional Standards Councils (2019):

"Professions not only improve employment and career longevity but can also provide an important community purpose and empowerment, allowing people's careers to contribute to the social good."

Professional membership of the Australian Water Association (AWA) "recognises active involvement and professional standing in the water sector" (AWA 2019). The AWA embraces the diversity of professional interests in water, including members from all disciplinary backgrounds whose practise engages with any aspect of the water sector.

Climate change makes building these capacities even more vital and urgent. Under climate change, events can overtake the thinking; creating the need for new paradigms and approaches. Water professionals can contribute through their ability to visualise events and their implications beyond the *status quo*. When the consequences of change are under-discussed and unrecognised, this leads to partially informed decisions. By thinking in advance of events, water professionals can help foreground the new contexts for decision-making. Leadership defines clearly the implications of climate change for the SDGs and the water sector, advances new possibilities for dealing with them and enables informed community choices.

Our starting point, drawing on the suggestions made by participants at the Ozwater'18 workshop, is a call to arms for water professionals. The responsibility to lead progress on the SDGs through action on water lies with us, personally and collectively. This principle aligns with the objectives of the UN International Decade for Action: Water for Sustainable Development 2018-2028 which recognises the centrality of water to achieving the SDGs.

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