



Crossing Boundaries through Research:  
A Review of the Australia-Indonesia  
Centre's Collaborative Research Model

By Dr. Martijn van der Kamp  
Monash Business School

## Executive Summary

In 2018 the Australia-Indonesia Centre (AIC) completed its inaugural research program funded by the Australian Government. To capture and solidify the lessons learned during the inaugural research, the AIC initiated a structured review process to extract learnings from the wins, successes, losses, and challenges of their researchers. Based on interviews and workshops with research leaders and coordinators, this report recommends to: 1) 'establish a level playing field' in order to ensure equal participation and contribution; 2) 'lead at the AIC, cluster, and team level' to coordinate and support effort and collaboration across the whole of the AIC; and 3) 'build a strong AIC identity' to provide motivation and inspire all involved in the AIC, and to guide behaviours in areas not covered by structures and policies. Together these recommendations should aid a more integrative research network that is able to produce a variety of high quality outcomes, in less time than previously required to set up, execute, and publish research and benefit from its impact.

## Acknowledgements

I acknowledge the following people for their valuable contributions to this report. First, a warm thank you to the cluster leadership of the AIC for participating in this review and providing the valuable insights upon which this report builds. Second, I thank the staff of the AIC for their support during the planning and execution of this review. It was an absolute pleasure working with you all.

## Contents

Executive Summary .....	2
Acknowledgements .....	2
1. Introduction .....	4
1.1 A Review of AIC's Collaborative Research model .....	4
1.2 Objective and Approach .....	4
1.3 Structure of This Report .....	5
2. The Science of Multi-Team Science .....	6
2.1 The AIC as Multi-Team System .....	6
2.1 Characteristics of High Performing Multi-Team Systems.....	7
2.2 Leadership in Multi-Team Systems .....	8
3. Approach to the Review .....	9
4. Findings and Recommendations .....	11
4.1 Establish a Level Playing Field.....	11
4.1.1 Resource Equity across Countries .....	11
4.1.2 Strong Legal Foundations.....	12
4.1.3 A Facilitated Proposal Process.....	13
4.2 Lead at the AIC, Cluster, and Team Level .....	14
4.2.1 Clarify the Foundations of the Collaborative Research Model .....	14
4.2.2 Strengthen Leadership in Transition Phases.....	16
4.2.3 Strengthen Leadership in Action Phases .....	16
4.3 Build a Strong AIC Identity .....	17
4.3.1 Identification at All Levels .....	17
4.3.2 Optimize the Amount of Edge.....	18
4.3.3 Cherish Experience .....	19
5. Conclusion .....	20
References .....	21
Appendix 1: Interview Guideline and Workshop Format.....	22
Appendix 2: Participant Consent Form .....	26
Appendix 3: About Dr. Martijn van der Kamp.....	27

## 1. Introduction

### 1.1 A Review of AIC's Collaborative Research model

The Australia-Indonesia Centre is a bilateral initiative of the Australian and Indonesian Governments, established in 2014. The Centre consists of a consortium of eleven Australian and Indonesian universities. Its activities span eight critical areas: energy, infrastructure, urban water, food and agriculture, health, bilateral attitudes, capacity building and engagement. Its vision, straight from the beginning, was to deliver solutions, promote greater understanding and deepen people-to-people links through inter-campus collaboration. In research, it has grown a network of 430 researchers and 120 research students from both countries, engaged in 81 research projects across 17 locations and 74 urban, rural and remote sites. Through network-building programs, it has connected 162 emerging Australian and Indonesian leaders in policy, business, community and research from 33 institutions.

In 2018, the inaugural round of funding and associated research ended, and has started designing its new research program. An integral part of the design is a team-based approach to facilitate and support the participating researchers and their work. The AIC wants to take the opportunity of this turning point to look back and draw on the valuable lessons learned by their researchers while coordinating and working in their research clusters and teams, and while working with other teams and clusters. The AIC wants to capture and solidify these lessons through a structured review process to learn from the wins, successes, losses, and challenges. This desire resulted in the structured review of AIC's cluster-based collaborative research model, outlined in this report.

### 1.2 Objective and Approach

An integral part of the design of the next iteration of the AIC research model is to improve its team-based approach to research. The AIC's current cluster-based research model builds on teamwork across 80 projects, over five disciplinary clusters – energy, infrastructure, food and agriculture, health, and urban water. Over four years, the people working with the AIC have learned much about collaboration and teamwork.

Lessons learned through the current cluster-based research model will inform the design of the AIC's new research program. To solidify these learnings, the underlying question at the heart of this report is:

**Which learnings from its collaborative cluster-based research model should the AIC take into account in the design of its next research program?**

To answer this question, this review relies on the outputs of a series of interviews and workshops with AIC cluster coordinators and leaders, as outlined in more detail in Chapter 3 of this report.

Three initial comments are necessary:

- In the turnaround time allowed for this review, it was not possible to assess all aspects of the AIC and its clusters and teams. The presented analysis largely focuses on the cluster-level

team dynamics and their intersection with the central AIC organisation in Caulfield, Australia. To gain deeper insights into the functioning of other teams relating to the AIC, (such as detailed insights into its research teams, 'corporate teams', or stakeholder teams) further investigation is required.

- The author of this report is a management academic who specialises in interorganisational teamwork with limited knowledge of the vast span of research of the AIC and its interdisciplinary research teams. This has not hindered the review process, as the focus of this review is on the core aspects of teamwork and teamwork structures at the AIC.
- These comments are intended not to highlight that much detail is missing from this review, but to emphasise that this is a focused investigation that drives the key elements of teamwork and the collaborative research model to the foreground.

### 1.3 Structure of This Report

This report is structured as follows. Chapter 2 introduces a theoretical framework that poses the AIC as a research system of collaborating teams and depicts the essential components that drive performance in such a system. This chapter will form the basis of the detailed review questions and, as such, of the approach and analysis of this review. Chapter 3 explains the approach taken to the review and explains its suitability. Chapter 4 builds on a thematic analysis of interviews and workshops and follows a set of practical recommendations that attempt to address the weaknesses of the AIC's collaborative cluster-based research model and build on its strengths to design, implement, and facilitate the next phase of the AIC. Chapter 5 concludes this report.

## 2. The Science of Multi-Team Science

The idea of the 'lone genius' is losing traction in research, which is increasingly becoming a team effort (Fiore, 2008). The challenges that science attempts to address are becoming more complex and therefore require input from researchers with a variety of backgrounds. As a result, complex collaborations across organisations, sectors, countries, and disciplines are becoming the new norm. Technology drives this change, as it makes establishing connections easier and data more freely available. The founding of the Australia-Indonesia Centre is a response to the growing complexity of our challenges and research requirements, and as such is an excellent example of a centre that facilitates all the intricacies of this type of collaboration.

The number of collaborative efforts has increased with their rising importance, yet the knowledge on how to work collaboratively and facilitate this type of research falls behind (Hall et al., 2018). In response to this issue, U.S. researchers established a new field of research in the year 2000; the Science of Team Science (SciTS). Team science refers to teams who are doing research in complex social, organisational, political, and technological environments that heavily influence how that research occurs. The Science of Team Science (SciTS) field addresses questions regarding the value of team science and strategies for successfully leading, engaging in, facilitating, and supporting science teams. The AIC is in an ideal position to act as a facilitator of team science; therefore this field forms the basis for this review.

The next chapter outlines the theoretical foundations of the analysis based on the SciTS field. It explains why particularly the research on Multi-team systems (Mathieu, Marks, & Zaccaro, 2001) applies to the AIC, what the characteristics and drivers of performance are in networks of teams, and how leadership can bring these elements together. As such, this research forms a theoretical benchmark that allows identifying the strengths and weaknesses of the AIC collaborative research model.

### 2.1 The AIC as Multi-Team System

In its essence, the AIC's collaborative research model represents a multi-team system-based approach to research. A multi-team system (MTS) is a network of interdependent teams (Mathieu, Marks, & Zaccaro, 2001) that work together collaboratively towards common goals. Teams in this network not only pursue an overarching research objective but can also pursue individual (team) research objectives, which can even be at odds with each other. The MTS framework recognises that research outcomes are not the result of collaboration within teams, but that they also require collaboration between teams. Because research teams work within the boundaries of other institutions, clusters, and academic pillars, the AIC has no strict control over the teams as in other (for example, more hierarchical) organisational types (Marks & Luvison, 2012). These complexities make leadership within MTS more challenging than in more traditional organisational forms (Zaccaro, Marks, & DeChurch, 2012).

While other conceptualisations might also fit the cluster-based research model, the MTS approach has teamwork within and between teams at its core. Because of the envisioned, and intentional, team-based focus in the AIC's new research model, an evaluation through the multi-team system lens will provide valuable insights to feed into this design.

This review evaluates the cluster-based research model as an MTS where teams occur at the AIC-level, the cluster level, and within clusters. It may come as no surprise that research suggests that MTS characteristics and processes strongly affect MTS outcomes (Zaccaro, Marks, & DeChurch, 2012), and that, taken the complexity of multiteam systems, leadership within and across teams is a particularly important driver of system performance (Zaccaro & DeChurch, 2012).

Based on this research, the following questions inform this review:

- 1. How have the characteristics and processes of the cluster-based research model affected key outcomes?**
- 2. How have leadership processes within and between teams impacted key outcomes?**

The following paragraphs, provide the theoretical foundations for each of these questions as the foundation for further analyses.

## 2.1 Characteristics of High Performing Multi-Team Systems

When evaluating the AIC as an MTS, Zaccaro et al. (2012) suggest a series of MTS characteristics that affect the performance of MTS. They provide a typology that is based on three main categories of MTS attributes; compositional, linkage, and developmental. This typology can act as a benchmark to review the characteristics of the AIC.

The first category in the typology is compositional attributes. These attributes are all readily observable demographic characteristics. The number of teams, team size, number of organisations represented, functional diversity and geographic dispersion are examples of the attributes that affect MTS functioning and performance. For instance, an MTS that consists of multiple organisations is likely to face greater social complexity regarding scope, scale, and stakeholder involvement.

Linkage attributes pertain to mechanisms and processes that connect teams. Interdependence, hierarchical arrangement, and power distribution are examples of key attributes. For instance, teams that face highly complex tasks often require higher levels of interdependence than those with a simpler task. Interdependence occurs when teams rely on the same inputs (e.g. machinery), work together on the same thing but not all things, or require another team's output.

Lastly, developmental attributes relate to the different development processes of different MTS. For example, is an MTS appointed or emergent, what is the expected lifetime of the MTS and how does the MTS develop in terms of teams and turnover. The *genesis* of an MTS, or how it formed as emergent or appointed, will determine who sets goals and how goals will be set.

The approach to this review builds on these three types of attributes as a foundation of effective MTS performance. Ultimately, leadership plays an important role in how these characteristics are put to use and therefore it will also be included in the approach to this review. The next section discusses MTS leadership.

## 2.2 Leadership in Multi-Team Systems

Leadership in MTS differs significantly from team or organisational leadership (Zaccaro & DeChurch, 2012). In MTS, leaders often do not have formal control over all teams and aspects of the MTS and address challenges that are more complex than those of typical organisations. Leadership in MTS, therefore, consists of many leaders dispersed across organisations and teams. To make sense of leadership in MTS, Zaccaro & DeChurch suggest (2012) to take into account leadership at different levels of the MTS:

- Within teams (e.g. setting objectives, developing team plans)
- Between teams (e.g. collaboration plans, shared standards)
- External (e.g. strategy formulation, resources, and support)

They also suggest distinguishing leadership at different phases of teamwork; transition and action phases. Transition phases evolve around setting objectives, directions, and plans. In MTS that means planning for team performance, but also planning which team will do what and how teams will collaborate. Action phases evolve around task completion – tracking the processes and performance within and between teams. Communicating about teams' status and goal progression, as well as providing feedback to teams and team members occur in the action phase.

This framework of MTS leadership serves as extra input to structure our approach to reviewing leadership at the AIC. The following chapter provides more detail on the approach to this review and how these MTS theories are aligned.



### 3. Approach to the Review

To answer the review questions above and to address the overall objective of this report, the approach to the review is structured into three major elements:

- Interviews of cluster leads and coordinators in Australia;
- Review sessions with cluster researchers at Indonesian partner universities;
- Review of strategy documents.

Together these form methodological underpinnings of the review of the AIC's collaborative research model. The pre-interview data collection aims to establish the characteristics of the AIC as a multi-team system, and the interviews help to determine which aspects of the multi-team system have driven key outcomes and how it has evolved. The workshops help to triangulate, verify, and interpret the research findings before final reporting. The outlined MTS theory served as a basis for an interview guideline and a workshop format. Consistently following these ensured that the collected data provides relevant insights into the strengths and weaknesses of the AIC's collaborative research model. From there, a thematic analysis of the outcomes of the workshops and interviews led to a series of conclusions and recommendations. See Appendix 2 for an overview of the interview guidelines and workshop format.

The AIC multi-team system is large and complex. With the time and resources available, the scope of this review was set to focus on the research activities of the AIC, at the cluster level of the MTS and the interactions with the AIC level. Unavoidably, the team level came forward in conversations as well. The report, therefore, accommodates and includes insights on these levels as best as possible.

In total, 24 people participated in this review; 11 participants were interviewed, and 13 took part in one of three review sessions. The participants were cluster leaders or coordinators from all five clusters, with both Australian and Indonesian representatives. The intention was to interview all the AIC cluster leaders and coordinators. Interviews took between 30 minutes and 2.5 hours, with an average duration of approximately 1 hour (depending on the availability of participants). Three workshops took place in Indonesia; the duration of these workshops was 3 hours.

The aim was to have discussions that participants would find thought-provoking, and that they would walk away with insights about research collaboration generated by themselves and others. Participation was voluntary, and the participants all read through and agreed to an 'Informed Consent Form' that states the terms of collaboration in the review sessions (See Appendix 2).

A series of strategy documents from the AIC were included in this review. They served the purpose of providing more insight into the strategic goal setting and planning of the AIC, which could then be compared and contrasted with the input from the researchers. The documents pertained to the AIC level and did not include much detail on cluster goals and project details.

Three review sessions were held. The review sessions aimed to identify the strengths and weaknesses of the cluster research model in delivering desired (research) outcomes. The review

sessions were highly interactive, discussion-based focus groups. In a friendly, respectful, and constructive atmosphere, the groups provided a safe environment for everyone to voice their opinion about their experiences working with the AIC. Dr Martijn van der Kamp facilitated the discussions around a set of key questions.

The analysis of this data is best interpreted with an awareness of inherent limitations to the scope of this study. There was limited time available between the conclusion of the interviews and workshops, and the delivery of the report. A longer period of time would have allowed for a more structured thematic analysis of the interview data and a more in-depth digestion of the findings. Time restrictions also led to the exclusion of a round of verification of findings with participants. This is an often-used research practice to increase the reliability of, and confidence in, the findings and to gain traction and support in the organisation for the recommendations. I recommend executing this step before implementing the recommendations included in this report.

The number of participants ranged between two and seven per cluster. As a result, reporting and findings at the cluster level do not fully represent the experience of everyone in these clusters. The analysis, therefore, focuses mostly on the 'generic' research model across clusters rather than within or between clusters, and highlights notable exceptions within individual clusters where it concerns important variations.

## 4. Findings and Recommendations

The ambition and achievements over the first phase of the AIC's existence need to be acknowledged. Overall, participants spoke enthusiastically about their work with the AIC and were proud of their achievements together. This chapter aims to provide practical recommendations for designing, implementing, and facilitating the next phase of the AIC. The recommendations in this chapter follow a thematic analysis of recorded conversations with 24 research leaders who speak about their experiences of working with each other, with their clusters, and with the AIC. The presented recommendations attempt to address the weaknesses of the AIC's collaborative cluster-based research model and to build on its strengths. Recommendations include: Establish a level playing field; Lead on the AIC, cluster and team level; and, Build a strong AIC identity. The recommendations are supported by findings and conclusions from the analysis and mirrored against the established theory around MTS.

### 4.1 Establish a Level Playing Field

The AIC is a complex amalgamation of groups, organisations, and institutions. One of the most prominent boundaries, as the name of the AIC indicates, is the one between Australia and Indonesia. The availability of resources, the institutional underpinnings and the process of collaboration have created systemic barriers that prevent equitable opportunity and participation for all. As a result, team members have felt demotivated, disengaged, and projects occurred delays while trying to establish alternative plans and workarounds. Commitment, resilience, and improvisation skills are great strengths that shine through here. Also, the fundamental attribution error dictates that people have a tendency when things don't go well to attribute this to people, rather than taking into account the situational constraints (Jones & Harris, 1967). Taking that the indicated differences across the faultline are situation-based rather than person-based, the AIC can create a level playing field by removing some of these barriers before collaboration starts and designing collaborative processes that enable equitable participation.

#### 4.1.1 Resource Equity across Countries

**Providing equal funding for projects across countries, and equal opportunity for researchers to contribute to research projects can prevent loss of autonomy and an equal contribution to research papers.** The availability and distribution of resources, particularly time and money, was a primary concern brought forward in practically all conversations. Time available for research varies

---

*“There can still be asymmetry, but there needs to be actual money on the table. Otherwise the engagement is almost zero” – Cluster Lead*

---

drastically across Indonesia and Australia. Australian universities have a strong focus on research and most academics are encouraged to spend a significant amount of time on their research. Indonesian universities prioritise teaching over research, which means that their academics teach multiple classes per semester. Australian researchers also have more

support staff and research students available to them. As a result, Indonesian researchers are not able to contribute equally to the AIC projects they work on, which easily becomes a source of friction and frustration across the Australian-Indonesian divide. In some occasions, this leads to people not being listed as co-authors on papers and merely being acknowledged for their contribution. The instigation of a research student network can help to increase joint participation and outputs. Together, these measures contribute to creating equal footing across countries.

**Agreement on the amount of funds and the timing of the release of funds is essential to ensure a smooth and efficient research process.** The availability and release of funds is another resource concern. The AIC was set up with the idea that both Australia and Indonesia would invest in research as equal partners focused on shared problems. However, Indonesia never released the funds in the same way Australia did. Institutional changes concerning the Ristekdikti contributed to this issue. Another cause is the different timing of the academic calendar between Australia and Indonesia, which leads to the release of funds at different times. As a result, Indonesian researchers have to prepay research costs from their private funds, or occasionally from faculty funds, with reimbursement to occur months, or even a year, later. Examples can be found in the Health and Urban Water clusters. This puts the Indonesian researchers on the back foot compared to their Australian counterparts, making the Indonesian researchers more reliant on the funds available from Australia, resulting in a significant loss of autonomy.

#### 4.1.2 Strong Legal Foundations

**Establishing early agreement with the Ristekdikti and partner universities on the legal basis for collaboration can facilitate equal contribution and the exchange of data and students across universities.** On multiple occasions, the Indonesian researchers and those involved on the institutional level discussed the legal foundations of collaboration within the AIC. It became clear that overarching Memoranda of Understanding (MoU) are in place for all clusters, but that Memoranda of Agreement (MoA) are not always in place. The Australian researchers, often not aware of this, reported the lack of data available on the Indonesian side. The Indonesian researchers, in turn, indicated that they could not exchange data without these legal foundations in place. Few Australian researchers indicated frustration with the lack of data available, which reduced the motivation to work together.

**Legal agreement on the timing of funding release helps to synchronise research activity.** In Australia, funding often goes directly to the Australian researcher on an AIC project. It is noteworthy that in these cases an Australian researcher has to be listed as the lead researcher and the funds are given to them, and that as such the Indonesians are not equal partners. The Indonesian government can only release funds based on a MoA between universities. Together these practices compromise the autonomy of the Indonesian researchers and create dependence on the Australians. At the same time, it puts Australian researchers in a position of power, which can create (unconscious) expectations of the Indonesians to work for the Australians rather than with them (Carton & Cummings, 2012).

#### 4.1.3 A Facilitated Proposal Process

**Timely involvement of researchers in both countries and equal participation in shaping a research proposal drives equal representation of ideas and ownership of a research project, as well achieving team commitment to its outcomes.** A shared mental model is the extent to which team members are on the same page about who is on the team, what the team will do, why, and how they will go about it. This is a key driver of team performance (Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). A research proposal is a typical way to capture, establish, and share mental models. For example, it became clear that in the energy and health cluster, researchers do not always know who exactly is in the cluster and why, that projects run rather independently, and are often not truly collaborative across national borders. The Urban Water cluster forms a notable exception as they have reshaped the cluster halfway through their tenure and have spent the time to establish exactly these notions. As a result, they have been able to boost their collaboration and performance significantly. The research proposal process is crucial in forming shared mental models and can prevent much “wasted time” over the first one, or sometimes even two years of the cluster engagement.

**Skilful facilitation of the proposal formation process can unite people who speak different languages and come from different cultures and disciplines.** Building on the previous point, skilful facilitation can help to bring together people who come from different cultural backgrounds, speak different languages including jargon between disciplines, and need to form a shared understanding of

---

*“They have to know that the Indonesian counterpart is also graduated from an overseas university. Meaning that they are knowledgeable too. Because of a not so good introduction, it can seem that the Indonesians are not so bright, [...] In the Indonesian culture we don't talk much. Usually, the majority of us, we listen first. Sometimes we understand, sometimes we don't understand but are shy about the language, but it doesn't mean that they are not bright.” – Cluster Lead*

---

the problem they will be researching coming from their disciplines. Initially, the AIC approached mostly Australian researchers to think about the directions for the clusters they determined. Next, they organised a joint forum to develop ideas and come up with a shared agenda. While intentions were good, this process advantaged the Australian researchers regarding preparation, the language of the forum, and time available to talk through and develop a shared understanding. It can be hard to get on the same page in a few days when people present pre-developed ideas and discuss them without having much time to listen to others.

Moreover, the team composition was not yet established, and it was therefore not clear who was on the team and who was not. As a result, for example in the Urban Water cluster,

people kept dropping in and out. Stronger facilitation can ensure equal opportunity to speak and be heard, and that decision-making is equitable. Given the complexities of research across countries, institutes and disciplines, it is essential to take enough time to align expectations and understanding, because people can come to the table with very different expectations.

Notably, in 2015, the AIC set out to “Pursue solutions to shared national challenges through highly collaborative research programs that create and share information, knowledge and skills”. Several researchers acknowledged that over time the focus has shifted to addressing Indonesian challenges. As most funding comes from Australia, this puts Indonesia in the position where they depend on the help of Australia to solve Indonesian challenges. This is an uncomfortable position that undermines the Indonesians' autonomy, their capacity to address their own challenges, and the opportunity to work together as equal partners on shared problems. As one interviewee put it: “We don't want to be the subject of study”. Participants presented a variety of research ideas that could be of mutual interest. A facilitated process could explore these ideas further.

## 4.2 Lead at the AIC, Cluster, and Team Level

A challenge for the AIC is to achieve effective collaboration within and between teams, within and between clusters, and prevent silofication. Projects within the Urban Water, Food and Agriculture, and Infrastructure clusters are truly interdisciplinary and intercultural. In other clusters, there is a sense of ‘pretend collaboration’ where researchers introduce their projects into the AIC context (often because they are realistic to complete within the set timeframes) and work relatively independently from other

---

*“As cluster leaders we had limited interactions with the AIC apart from when there has been an industry thing, or when something came up [...]. There hasn't been any systematic processes. [...] There is no AIC identity across the cluster level, it's very much within the cluster. As clusters leaders I don't think we have ever set down as the cluster leadership as a whole. I had one great experience at a [stakeholder] meeting [...]. It would be really great to have an opportunity to really work together, air the dirty laundry, and problem solve together. – Cluster Lead*

---

teams and the cluster. In other cases, collaboration arose between Australian universities but collaboration across country borders could be stronger. All the clusters indicated the intention to work across clusters, but this has not been realised over the past years and could be the next step in the AIC's maturity. Also, cluster coordinators and leaders indicated that they received limited to no support from the AIC in how to lead the cluster. The next recommendation, therefore, is to guide a variety of energy flows through revisiting the foundations of the collaborative research model and by structuring leadership within teams and between teams. In general, we can distinguish MTS leadership within teams, between teams, and the external environment (Zaccaro & DeChurch, 2012); the following sections focus on the first two aspects. In these sections, the MTS leadership framework of transition and action phases forms the structural backbone of the recommendations (DeChurch & Marks, 2006).

### 4.2.1 Clarify the Foundations of the Collaborative Research Model

**Separate activities between Relationships, Process, and Content to distinguish which teams are more equipped and able to deal with specific tasks related to those domains.** In the current design the cluster leaders and coordinators are responsible for:

- Content: The research projects and their execution;

- Process: Taking care of logistics related to the research such as arranging flights, visa, reporting, funding, etc.;
- Relationships: Establishing and facilitating good teamwork processes within and between teams in clusters, and even between clusters.

Researchers and cluster coordinators hold most expertise in the area of 'content', and as such, each has to 'invent the wheel' on processes and relationship largely by themselves. This is a time consuming and often cumbersome task. Taking the complexity of the AIC, especially with regard to 'process' and 'relationships', there is an opportunity for the AIC to take over much of this work from the clusters – especially considering the similarities across clusters and teams in these areas. By structuring and facilitating process and relationships, the AIC can add value to the research activities, not in the least because they are directly related to the most common types of team conflicts (De Wit, Greer, & Jehn, 2012). Notably, the Health cluster has been very good in establishing relationships, particularly in the engagement area, and the restructuring of the Urban Water cluster as led to better collaborative processes.

**Revisit how to employ elements of 'Push' and 'Pull' in the collaborative research model to manage expectations and facilitate research.** A push model (a top-down, planned approach to collaboration) in the AIC would set an overarching objective, set goals at the AIC, cluster, and team level, would select team members and put teams together, and would monitor activities and progress across teams and facilitate linkages between teams (Zaccaro et al., 2012). A 'Pull' model is a more bottom-up, organic approach; the AIC would set a vision and invite teams to self-organise, propose projects and build networks. The AIC would help the teams when asked with a body of knowledge about how to engage in research across disciplines, countries and institutes (Surman & Surman, 2008). The Grand Challenge around Energy at the ANU came up as an example of a pull model. Currently, the AIC has elements of both. For example, it has a set number of partner universities, and was involved in selecting research teams and monitoring their progress closely, while leaving it up to the clusters and teams to self-organise their work and collaborative structures. The boundaries between push and pull are not always clear to researchers, which leaves expectations and needs unaddressed. A more open structure could also allow expertise from other universities to flow into the AIC. Because of the complexity of the AIC research context, self-organising can be very difficult and the AIC structure might be the only constant, so finding a shared and agreed balance between push and pull is essential.

#### 4.2.2 Strengthen Leadership in Transition Phases

**Implement basic structures at the AIC, cluster and team level that support preparing, planning, and designing tasks, their execution, and reflection on these during transition phases.** Clusters took up to two years to prepare and plan their research and collaboration, leaving little time for execution and publication of research. The AIC can support teams in this phase by ensuring that team goals align with those of the cluster and the AIC through establishing a goal hierarchy. This hierarchy provides a clear overview of the AIC, cluster, and team goals and their alignment with each other, especially over time. Tensions will become clear, for example, when teams pursue objectives outside of the AIC, or people have other obligations such as teaching. Participants often did not know how their goals aligned with AIC goals, which impacts on motivation.

---

*“We have to have a clear focused mission. The previous [AIC leadership] team cannot explain the mission to us [needed] to build a team between [the four university partners] at the time. This made us wonder what is the aim [...] and made us wonder about the technical assistance as there is no information about funding, or how to manage the funding. Also this is the first time for us to have a collaboration across the universities, with many experts and researchers who are all very intelligent people, but it is a bit difficult to build up a team. ” – Cluster Lead*

---

The AIC can further support teams by supporting staffing, developing team capabilities and team plans. Team capabilities involve an understanding of the various obstacles involved in collaboration across the AIC, clusters, and teams, and training in how to deal with those (e.g. teamwork behaviours such as giving feedback). Crucial to team performance is the team plan. A research proposal gives good insight into ‘what’ the team works on, but often does not discuss how teams will work together: which team members will take which task roles; what norms and values do the team agree to; how often will they meet, where, when, etc.; but also who leads the team and how? The AIC can develop standards in how to go through the process of making the team/cluster plan and enacting it, and support the formation and reflection on them at the AIC, cluster and team level. The AIC should have a clear overview of all teams, their composition, goals, and functioning, as well as which teams work together and to what purpose.

#### 4.2.3 Strengthen Leadership in Action Phases

**Implement basic structures at the AIC, cluster and team level to support teams in executing their tasks and collaborating well during action phases.** Good preparation contributes to good execution, yet in the action phase other tasks come to the foreground. At the AIC, cluster and team level, it is crucial to monitor sequential actions and coordinate these between teams. This includes providing timely feedback and facilitating backup behaviours (where teams and team members help each other). Other tasks include the tracking towards goals, identifying obstacles and linking teams to each other and other stakeholders to address challenges and blockages. Currently, clusters have shown to be very good at improvising and being entrepreneurial in addressing challenges, but more central action and linking across boundaries is often more effective than improvisation. Lastly, the AIC



can support communications about team actions and progress to other teams, to determine overall progress and keep teams motivated towards the AIC objectives.

### 4.3 Build a Strong AIC Identity

A third recommendation is to facilitate strong identification with the AIC as an overarching social identity. People acknowledged that the AIC has accrued recognition with various stakeholders (particularly in Indonesia), yet when asked 'what' or 'who' the AIC is, they were not so sure and did often not see themselves as a part of it. Structures can only do so much and they will change as the AIC develops, yet a strong AIC can persist over time and help people act and make decisions in the areas not covered by policy or process. People associated with the AIC belong to a range of groups; their national culture, the institute they work for, the discipline they work in, their faculty, etc. Tensions may arise between groups when people span boundaries across groups (e.g. Australia-Indonesia), are part of multiple groups (e.g. work on different projects), or when decisions made in one group are at odds with the values of one of their other groups (e.g. late night meetings might cross values around work-life balance). Also, the AIC only has limited power in the context of their many stakeholders. It is in these circumstances where leadership sets examples and reinforces the normative process that determine how collaboration plays out (Zaccaro & DeChurch, 2012). The next paragraphs describe how the AIC can increase identification at the team, cluster, and AIC level.

#### 4.3.1 Identification at All Levels

**At their most fundamental level, groups provide belonging, safety, and self-esteem to their members. The AIC has the opportunity to provide all of this to their network of teams by creating an AIC identity around inclusion, collaboration, and learning at the team, cluster, and AIC level.** Currently, each cluster and team has its norms, values and a way of 'how things are done'. People belong to other normative groups (e.g. country, family, university, department, academic tenure; cohorts). Identification with the AIC therefore occurs with rather "disparate and loosely coupled identities" (Ashforth & Mael, 1989, p. 22). Strong identity at the team, cluster, and AIC-level involves developing shared norms, values, and beliefs about what the AIC is and what it does. With so many subgroups in the AIC, it is necessary to think about how these subgroup identities fit into the AIC identity (Crisp, Stone, & Hall, 2006). Heroes (e.g. exemplar teams; recognition as AIC fellow), rituals (e.g. research summits, celebrations), stories (e.g. publishing books on the AIC together), and shared history (e.g. timeline of achievements) can help to stimulate a process of identification. Rewards can stimulate identification. However, when people are paid through different universities, at different levels, and in different currencies, other rewards might be better suited. Take for example, recognition on the AIC website, honorary grants, social events, or learning opportunities. Specific rewards for teams and or clusters reinforce these identities, as do competition and challenges between these entities (e.g. badminton competitions, or numbers of stakeholders engaged at the cluster level). When implementing social identification, it is essential to introduce the team members with regard to their expertise, resources, values, beliefs, attitudes, and their role vis-à-vis the team

objective (Carton & Cummings, 2012). Finally, team social events and team (milestone) celebrations are a great opportunity to experience shared success and exchange social information.

#### 4.3.2 Optimize the Amount of Edge

**Facilitate collaboration and inclusion across boundaries to benefit from diversity and achieve novel multidisciplinary outcomes.** The fact there are many groups within the AIC means there are many boundaries. Thus far, these boundaries mostly seemed a threat; however, these boundaries also create exquisite value. Bill Mollison, co-creator of the Permaculture concept said: *“The edge—the intersection of two environments—is the most diverse place in a system, and is where energies and materials accumulate. Optimise the amount of edge.”* So while identification with teams, cluster, and the AIC are one way to stimulate motivation and productivity, enabling people and rewarding them for

---

*“First we need to build networks. [...] Through the AIC we have been able to build networks across to universities in Australia, but more importantly also networks inside of Indonesia [...] with many universities. Second, we can learn from each other. Third is about publications. Joint publications are always much stronger [...] and the impact is much higher because we can combine our networks in different communities. There is also the indirect impact of strengthening the network with other resources such as funding.” – Cluster Lead*

---

crossing boundaries is the next step. Everyone needs to know who is in the AIC, and where the boundaries are (e.g. through team overviews and stakeholder directories). Interviewees on a few occasions indicated they do not even know who exactly is in their cluster. From there, it is possible to connect people across different group identities, for example by organising events just for Indonesians or Australians, by organising communities of practice around disciplines (e.g. all engineers), or functions (e.g. cluster leaders). This can be extended beyond the AIC boundaries, for example by always associating the AIC logo with partner logos. Together these practices show a sense of pride and openness for collaboration; they invite people in.

**Approach learning as the outcome to keep researchers engaged.** As mentioned earlier, financial rewards are not always feasible. However, especially in an academic environment, learning is always possible and often highly valued. Most participants mentioned how much they learned

from colleagues and from working with the AIC. Learning occurs at many levels, varying from learning about different cultures to applying for grants, to unlearning disciplinary knowledge to function well in a multidisciplinary environment. This suggests that learning is a great motivator and way of bringing people together. The AIC has multiple opportunities to guide purposeful learning. Participants suggested more opportunities to mentor research students, more opportunities to present in either country and to learn more about interdisciplinary teams and their functioning. An early career development program could stimulate such learning. Cross-cluster leadership platforms could help cluster leaders to share their knowledge and learn from each other while increasing their efficiency, motivation to work for and identify with the AIC. Accumulated learning can lift the AIC to the next level of maturity with regards to collaboration between clusters.

### 4.3.3 Cherish Experience

**Make better use of existing experience and expertise on crossing boundaries within the AIC to establish good relationships and benefit from diversity.**

The AIC was started as a greenfield centre in 2014 and had to innovate on many occasions. From the interviews, it becomes clear that where previous experience exists it was a driver of development and outcomes. The Food and Agriculture cluster, for example, had an established research network in Indonesia. By relying on these relationships, they were able to form a research agenda and work together more effectively and in a shorter period compared to other clusters. Relevant experience and expertise come from collaboration across disciplines, cultures, the AIC and stakeholder networks. Such experience leads to more effective collaboration with existing collaborators (and more grants) and 'brokerage' across disciplines and groups but requires institutional support (Hall et al., 2018). Where, for example, cultural experience was missing, it was harder for teams to get on the same pace and create a psychologically safe working environment. Most teams invested months in establishing effective team cultures; the AIC should consider how to preserve these cultures to have a better return on these investments. Similarly, cluster leaders have become experts in working with their clusters and with the AIC, this is complex knowledge that is hard to come by and should be valued. For example, on many occasions cluster leaders indicated that they were not across the plans for the second round of funding and were not asked for input. Invite them in.

**Import experience to leapfrog the development and maturity of the AIC.** Findings indicate that there is value in importing experience, particularly from other established research clusters, alumni, and across the AIC. In the conversations, other research networks came up. Most notably, the Indonesian universities seem to work extensively and successfully with Japanese universities, and sometimes with American research networks. Alumni, who reflect affectionately on their time in Japan, form an important basis for these relationships. Studying these models in more depth and

---

*“We had a similar project going in [another country], and so, some of the lessons that we had learned from that project we were able to put into this project [...] We were lucky that we had that long history [of working in Indonesia], we were lucky that we had someone who was available who had the networks established already [...] to work with us and to spend a lot of time in Indonesia to get things moving.” – Cluster Lead*

---

learning from their journeys might help the development of the AIC. For example, one interviewee indicated that connecting laboratories on a strategic level rather than people on projects drives success in Japanese collaborations. Other established clusters, such as CERN (the European Organization for Nuclear Research) also came up. The AIC is possibly unique in its scope and complexity, but other centres could serve as role models regarding processes and procedures and act as mentors/bigger brothers and sisters. Hiring previous employees from these clusters is an effective way to import experience. Particularly in Indonesia, alumni networks are strong and influential. Indonesian alumni from Australian and other Western universities have the cultural and academic experience relevant to roles such as liaison officer, cluster

coordinator, or team leader. Also, alumni have social networks spanning multiple countries that they can put to use. Australians have less Indonesian experience than the other way around; exchange (PhD) students could obtain that experience and become the basis for future collaboration. Lastly, the AIC could enrich the experience and trust by creating more opportunities to exchange collaborative knowledge at different levels; between teams, clusters, and the AIC overall. Participants highly valued the joint forums and would love to see and participate in more.

## 5. Conclusion

The Australia-Indonesia Centre is at an exciting point in its life cycle; it is about to step out of the early stages and into the next developmental stage. This warranted reflection and urged the review of the AIC's collaborative research model presented in this report. A series of review sessions and interviews with the cluster leaders and coordinators form the report's heart. From speaking with these participants, it becomes clear that the AIC has been able to make remarkable achievements with regards to research, public impact, and the engagement of stakeholders at all levels of society. The analysis results in three main recommendations supported by evidence from the interviews and workshops, each of which come with more detailed implementation suggestions. The recommendations pertain to 1) 'Establish a Level Playing Field' in order to ensure equal participation and contribution; 2) 'Leading at the AIC, Cluster, and Team level' to coordinate and support effort and collaboration across the whole of the AIC; and 3) 'Building a Strong AIC Identity' to provide a motivating and inspiring environment and experience to all involved in the AIC and direct behaviours in areas not covered by structures and policies. Hopefully, together, these recommendations will be helpful in the next steps of the growth and maturation of the Australia-Indonesia Centre. I and with me, many AIC researchers are excitedly looking forward to seeing the AIC grow further in the next stage of its journey.

## References

- Ashforth, B. E., & Mael, F. (1989). Social identity theory and the organization. *Academy of Management Review*, 14(1), 20-39.
- Carton, A. M., & Cummings, J. N. (2012). A theory of subgroups in teams. *Academy of Management Review*, 37(3), 441–470.
- Crisp, R. J., Stone, C. H., & Hall, N. R. (2006). Recategorization and subgroup identification: Predicting and preventing threats from common ingroups. *Personality & Social Psychology Bulletin*, 32(2), 230–243.
- De Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology*, 97(2), 360–390.
- DeChurch, L. A., & Marks, M. A. (2006). Leadership in multiteam systems. *Journal of Applied Psychology*, 91(2), 311–329.
- Fiore, S. M. (2008). Interdisciplinarity as Teamwork:How the Science of Teams Can Inform Team Science. *Small Group Research*, 39(3), 251-277. doi:10.1177/1046496408317797
- Hall, K. L., Vogel, A. L., Huang, G. C., Serrano, K. J., Rice, E. L., Tsakraklides, S. P., & Fiore, S. M. (2018). The Science of Team Science: A Review of the Empirical Evidence and Research Gaps on Collaboration in Science. *American Psychologist*, 73(4), 532-548.
- Jones, E. E., & Harris, V. A. (1967). The attribution of attitudes. *Journal of Experimental Social Psychology*, 3(1), 1-24.
- Mathieu, J. E., Heffner, T. S., Goodwin, G. F., Salas, E., & Cannon-Bowers, J. A. (2000). The influence of shared mental models on team process and performance. *Journal of Applied Psychology*, 85(2), 273–283.
- Mathieu, J. E., Marks, M. A., & Zaccaro, S. J. (2001). Multi-team systems. In N. Anderson, D. Ones, H. K. Sinangil, & C. Viswesvaran (Eds.), *International Handbook of Work and Organizational Psychology* (pp. 289–313 ). London: Sage.
- Surman, T., & Surman, M. (2008). Open Sourcing Social Change: Inside the Constellation Model.
- Zaccaro, S. J., & DeChurch, L. A. (2012). Leadership Forms and Functions in Multiteam Systems. In S. J. Zaccaro, M. Marks, & L. A. DeChurch (Eds.), *Multiteam systems : An organization form for dynamic and complex environments* (pp. 253-288). New York: Routledge.
- Zaccaro, S. J., Marks, M. A., & DeChurch, L. A. (2012). Multiteam Systems: An Introduction. In S. J. Zaccaro, M. A. Marks, & L. A. DeChurch (Eds.), *Multiteam systems : An organization form for dynamic and complex environments* (pp. 3-32). New York: Routledge.

## Appendix 1: Interview Guideline and Workshop Format

### **A study of AIC's collaborative research model**

This document contains 1) a pre-interview data collection guideline (page 1), 2) an interview guideline (page 2), and 3) a cluster leadership workshop format (page 3). Together these documents form the basis of the methodology underpinning the study of AIC's collaborative research model; the pre-interview data collection aims to establish the characteristics of the AIC's as a multi-team system, the interviews will help to determine which aspects of the multi-team system have driven key outcomes and how the MTS has evolved over time. The workshop will help to triangulate, verify, and interpret the research findings before final reporting.

### **Pre-Interview Data Collection Guideline**

#### **The AIC as a Multi-team system**

##### *Overview*

1. What led to the founding of the AIC? What was there before? Who were involved in the formation? What did the formation process look like?
2. What are the most important things you do in your role?
3. What have you learned about working across borders (disciplines, country)?
4. Are there any (strategy) documents, contracts, meeting notes, presentations, video's, photo's from the period pre-formation and around founding the AIC?
5. What are the AIC's main objectives and goals?
6. What are the objectives and goals of each cluster?
7. How many projects are in each cluster?
8. Which teams work on which projects?
9. Which other teams can we distinguish as part of the AIC?
10. Who is on what team? For each person; name, job title, expertise, department, faculty, university, office + building, campus, AIC Projects, AIC Function)  
(e.g. Martijn van der Kamp, scholarly teaching fellow, organizational behavior, Leadership and executive education, Monash Business School, Monash University, H9.08, Caulfield Campus; AIC cluster; AIC Project X, AIC Project Y)

##### *Governance structure and changes*

11. Governance template? Contract? Strategy documents or presentations?
12. What is the relative influence of clusters within the AIC?
13. How does communication usually take place between the AIC and the individual clusters, and across clusters?
14. Coordination, control (monitoring) mechanism between/within clusters?
15. Which clusters work together? On what?
16. Which procedures/direction/ guidelines does the AIC provide to clusters?
17. Which constraints are placed on the clusters (from AIC or external)?
18. Is there an ordering of teams according to levels of responsibility in the AIC?
19. What are typical communication patterns? [cluster or team or MTS]?
20. What modes of communication are used across teams (e.g. e-mails, meetings)?
21. Which teams from other stakeholders work with the AIC?
22. Which teams work interdependently? How are they interdependent?
23. What are the main resources that the AIC provides to the teams?

24. What have been the most significant changes in AIC's strategies, structure, systems, and processes since the start of the AIC?

## **Interview Guideline - Cluster leaders and coordinators**

### **Interviewee details**

1. Can you please introduce yourself?
2. How long have you been involved with the AIC?

### **Cluster Development**

3. What are the key events during pre-formation, formation, and post-formation?
4. How was the research strategy determined? Documents, plans, etc?
5. How mature would you say this cluster? What do you judge this by?
6. To what extent have the teams in this cluster been stable?
7. How often have ties and collaboration between teams in the cluster changed?

### **Generating Key Outcomes**

8. What are the key outcomes and achievements of the cluster? Which achievements are you proud of? For yourself/team/your cluster/the AIC?
9. What are the main drivers of those outcomes? Example?
10. What are the challenges in achieving those outcomes?
11. How has the AIC driven / challenged these outcomes?
12. What have been major changes over the last few years?
13. To what extent is each team committed to the cluster?
14. Learning/feedback mechanism?

### **Cluster Leadership Functions**

15. What are the most important functions of the cluster coordinator/leader?
16. What have been decisive moments for you as a cluster coordinator/leader?
17. How do you coordinate and control projects within and between teams?
18. What reports, documentation and communication do you rely on?
19. What does the cluster do to stay flexible?
20. How do you work with other clusters and stakeholders? Stay updated?



## Review Session Format

Underneath a schedule for the review sessions in Jakarta and Surabaya. Timing differed depending on location. Please note that each question in this overview indicates a topic area that comes with sub questions.

Timing	Activity
10:00 – 12:00	<p><b>Welcome &amp; Introduction</b></p> <p><b>Session 1: Looking back</b></p> <ul style="list-style-type: none"> <li>- How did your cluster develop?</li> <li>- What are the key outcomes of your cluster?</li> <li>- What have been the most prominent changes and challenges?</li> <li>- What is it like to work with the AIC as a cluster leader?</li> </ul>
12:00 – 13:00	<p><b>Lunch break</b></p> <p>The hotel will serve complimentary lunch</p>
13:00 – 14:00	<p><b>Session 2: Solidifying learnings</b></p> <ul style="list-style-type: none"> <li>- What are the strengths and weaknesses of the cluster research model?</li> <li>- Which practices would you recommend to others?</li> <li>- Which design principles would you recommend?</li> </ul> <p><b>Conclusion</b></p>

## Appendix 2: Participant Consent Form

**Project title: A review of AIC's collaborative research model**

**Facilitator: Dr Martijn van der Kamp**

**Monash Project ID: 250487766**

### **Consent for Participation in (Group) Interview Study**

I volunteer to participate in a research project conducted by Dr Martijn van der Kamp from Monash University, for the Australia Indonesia Centre (AIC) with the purpose of reviewing the AIC research model and developing future research and training proposals. I understand that the project is designed to gather information about my experience of working with the AIC and not evaluation of my performance. I will be one of approximately 20 people being interviewed for this research.

1. My participation in this project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, no one will be notified.
2. I understand that most interviewees will find the discussion interesting and thought-provoking. If, however, I feel uncomfortable in any way during the interview session; I have the right to decline to answer any question or to end the interview.
3. Participation involves being interviewed by Dr Martijn van der Kamp from Monash University. The interview will last approximately 60 minutes. The interview may be captured in notes and audio recordings. If I don't want to be recorded, I cannot participate in the study.
4. I understand that the researcher will not identify me by name in any reports using information obtained from this interview and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.
5. This data will be stored on university data storage facilities and can only be accessed by the researchers on this project.
6. The data collected for this project will be used for the purposes stated in the introduction of this document, and can be used for academic research purposes by Dr Martijn van der Kamp and can only be shared with others if they are directly involved in the analyses related to this research.
7. I understand that this research has been reviewed and approved by the AIC management team.
8. I have read and understood the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
9. I have been given a copy of this consent form.

---

Name

Signature

Date

For further information, please contact:

Dr Martijn van der Kamp

Monash Business School

Martijn.vanderkamp@monash.edu

## Appendix 3: About Dr. Martijn van der Kamp

Driven by the firm belief that only through collaboration can we face our biggest challenges, Dr Martijn van der Kamp aims to educate, inspire and equip those who are tackling these challenges through the topics of teamwork, strategy, and leadership. As a researcher, teacher, and consultant, Martijn has worked with teams in business, government and elsewhere on the design and implementation of teamwork and partnership strategies.

Martijn is a scholarly teaching fellow at the Monash Business School, where he teaches Leadership in the MBA program, heads the MBA integrated team program, and engages in executive education.

In his research, he links strategy, organisational design, and organisational behaviour, with a focus on teamwork in strategic alliances. His current studies mainly focus on how diversity and team composition affect team effectiveness and outcomes, especially in networks of teams across organisations. His research regularly crosses levels of analysis and relies on a variety of research methods, including field studies, cases, and experiments.

His work regularly features in the media and at international conferences and has received awards from The Academy of Management, The American Psychological Association, and the International Association for Conflict Management.

Martijn holds degrees from the Rotterdam School of Management (BA), the Erasmus University Rotterdam (MBA), and the University of Melbourne (PhD.). Dr. van der Kamp has been a visiting scholar at Harvard Business School, held research positions at the UNSW Business School and the Melbourne Business School, and was a strategic sourcing and partnership consultant for Kirkman Company.

Contact details:

Dr Martijn van der Kamp

Monash Business School

[Martijn.vanderkamp@monash.edu](mailto:Martijn.vanderkamp@monash.edu)

