

## **Influential Article Review - The Rise of Communities from Economic Hubs**

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*This paper examines economics. We present insights from a highly influential paper. Here are the highlights from this paper: This paper analyzes the Greenlandic business community and the recently established cluster relevant to extractive industries in Greenland, Arctic Cluster of Raw Materials (ACRM), to enhance local business development in mining projects in Greenland. The analysis directs toward a transition from an economic cluster to a collaborative community in order to increase business potential and to overcome limitations of smallness and inadequate competencies of the Greenlandic business community in the mining industry. Transitioning into a collaborative community creates more value by enabling member firms to realize business development that each single firm could not achieve with its own efforts by being a part of a cluster. Managing the transition process emphasizes the facilitating role for the reason that a shared service provider is required in every collaborative community. I develop a conceptual model for the transition from an economic cluster to a collaborative community based on the architectural elements of the collaborative community design. The conceptual model considers the five proximity dimensions that influence inter-firm linkages both as enablers and barriers to the transition process and collaboration. Collaboration represents a new approach to business and industrial development in remote regions of the Arctic, as challenges evident for Greenland can be found throughout the entire Arctic. For our overseas readers, we then present the insights from this paper in Spanish, French, Portuguese, and German.*

*Keywords: Cluster development, Collaboration, Collaborative community, Proximity dimensions, Greenland, Mining, Arctic*

### **SUMMARY**

- The current circumstances in Greenland are not preferential. Economic vulnerability, the necessity of economic diversification, and abundance of natural resources leads to great expectations that extraction of natural resources will provide economic prosperity to the society. Unfortunately, falling commodity prices reduce the business case for establishing mines in Greenland and do not attract investments in any mining activities. This leaves Greenland in a sense of standstill. Nevertheless, the effect of these external challenges on Greenland is unavoidable, and to overcome this may require other initiatives or enormous investments to push projects in progress regardless of market conditions. However, a future upswing in the industry should indeed boost the business case to the benefit for Greenland.

- A collaborative design is a strategy to overcome the prevailing limitations of the Greenlandic business community and potentially increase application of Greenlandic businesses in mining projects. However, the isolation of the region may lead to excess social and geographical proximity, which can have adverse impact on innovation and learning and lock actors into established ways of doing things.
- To manage the transition from a small cluster to a collaborative community emphasizes the facilitating role of a shared service provider, which is required in every collaborative community . The transition from ACRM as a cluster to ACRM as a collaborative community significantly expands the role of ACRM. ACRM already conducts strategic initiatives, but it needs to take on additional activities assigned to a shared service provider in a collaborative community , which supports a gradual development of trust. It is important to consider the proximity dimensions as they are mechanisms that influence linkages between actors. A key focus area in the transition process is the institutional proximity, which is considered low. High level of institutional proximity supports stability and a basic level of trust, which can be enhanced through the development of protocols. Naturally, a transition process from a cluster to a collaborative community and the role of a shared service provider in the transition requires further research both in theory and practice. Moreover, this represents a new approach to accelerate business development in a business environment that faces limitations of smallness and inadequate resources, which is highly relevant in remote regions throughout the Arctic.
- The case-study approach allows in-depth exploration in order to understand complex social phenomena and retain a holistic and real-world perspective , which is valuable in this context. The one-case selection in this study is a limitation to generalizability of the findings. Nonetheless, the intention of this study is not generalizability in the conventional sense, but rather the force of example . The geographical isolation of Greenland may stimulate collaborative behavior not only due to a high geographical and social proximity, but also due to a lack of other options available in remote regions. What might appear as an advantageous strategy to pursue for Greenland may not necessarily apply to other Arctic communities dealing with extractive industries. Nonetheless, as experiences with extractive industries in other Arctic locations provide knowledge and perspectives to Greenland, studies of Greenland can contribute learnings to other Arctic communities.

## HIGHLY INFLUENTIAL ARTICLE

We used the following article as a basis of our evaluation:

Kadenic, M. D. (2017). Transitioning from an economic cluster to a collaborative community: mining projects in Greenland. *Journal of Organization Design*, 6(1), 1–21.

This is the link to the publisher's website:

<https://jorgdesign.springeropen.com/articles/10.1186/s41469-016-0011-9>

## INTRODUCTION

In recent years, Greenland has attracted global attention as a frontier region of the Arctic for development of mineral and hydrocarbon resources (Nuttall, 2012). Similar to other Arctic economies, the industrial structure in Greenland is dominated by fishing and hunting of very few species (Duhaime and Caron, 2006; Larsen, 2010; Økonomisk Råd, 2012), which emphasizes the vulnerability of Greenland's economy. A mining industry represents an opportunity for economic growth and positive effects on local businesses and employment (Government of Greenland, 2014; Ministry of Foreign Affairs, 2011). Nevertheless, the Greenlandic business community is challenged by size limitations, lack of prior experience with the mining industry and necessary competencies (Copenhagen Economics, 2012; The committee for Greenlandic mineral resources to the benefit of society, 2014; Økonomisk Råd, 2012).

A cluster relevant to extractive industries in Greenland, Arctic Cluster of Raw Materials (ACRM), was established in 2013 by the Confederation of Danish Industry (DI), the Danish Industry Foundation (IF), Greenland Business Association (GA), and the Technical University of Denmark (DTU). The cluster serves as a platform for businesses with interest in the extractive industries in Greenland (Jakobsen and Lyne, 2013). The main purpose of ACRM is to strengthen competitiveness, increase possibilities for subcontractors to mining projects in Greenland, and raise awareness about mineral exploration in Greenland and the Arctic (Arctic Cluster of Raw Materials, 2016; Jakobsen, 2013).

Cluster establishment and collaboration is considered beneficial for the Greenlandic business community in order to increase business potential (The committee for Greenlandic mineral resources to the benefit of society, 2014). I therefore investigate the ability of cluster development and the collaborative approach to enhance local business development and application of Greenlandic businesses in mining projects. In this paper, I apply an in-depth single-case-study design (Yin, 2014) based on data from interviews and supported with secondary data sources such as reports, research, documents, and statistics.

Firms in various industries cohere together in different kinds of clusters and networks. Industrial clusters are powerful engines to wealth creation (Mathews, 2012; Ghadar et al., 2012). They cut across traditional industry classifications and are concentrations of interconnected companies and institutions co-located in a specific geographic region and linked by commonalities and complementarities in a particular field (Ketels, 2003; Porter, 1998, 2000; Porter et al., 2004). This represents a new way of thinking about local economies (Porter, 1998, 2000). This is well recognized and an object of increased attention (Mathews, 2012). Clusters represent a setting in which both traditional production activities and entrepreneurial and innovative activities take place (Mathews, 2012). Firms that form part of a cluster can accomplish many more activities by having access to more resources over the single, isolated firm, and expanding the market for their products and services (Mathews, 2012). Ultimately, a cluster is a system where interconnections among members result in a whole that is greater than the sum of its parts (Porter, 1998, 2000). Firms within clusters do form linkages. Collaboration and linkages between organizations in clusters are influenced by five proximity dimensions: geographical, social, cognitive, organizational, and institutional (Belso-Martinez, 2016; Molina-Morales et al., 2015; Boschma, 2005). Limitation and excess of proximity may prevent successful inter-organizational linkages (Boschma, 2005).

In extension of cluster development, industries are rethinking their business processes (Daft et al., 2010). Firms are increasingly faced with competitive pressures due to continuous adaptation to a dynamic environment (Fjeldstad et al., 2012). In response to the pressing challenges, a new organizational form is emerging, based on a collaborative community design (Bøllingtoft et al., 2012; Fjeldstad et al., 2012; Miles et al., 2010; Snow, 2012; Snow et al., 2011; Snow et al., 2009). Collaboration is a process where at least two parties work together to achieve mutually beneficial outcomes, such as resolving a problem or creating a new business (Miles et al., 2005; Miles et al., 2000; Tencati and Zsolnai, 2009). Companies can achieve competitive advantage by joining resources and accomplish more at a faster rate than they can on their own (Bøllingtoft et al., 2012; Daft et al., 2010; Miles et al., 2005; Schilling, 2010; Snow et al., 2011). Collaboration among SMEs can be an advantageous strategy to overcome financial and resource limitations and strengthen their market position (Franco, 2003). Small companies are particularly motivated by competitive advantages, which include entering new markets; improving the level of innovation; sharing resources and competencies; achieving economies of scale; and increasing production capacity (Franco, 2003).

Firms within a cluster that face challenges and limitations, such as those of the Greenlandic business community, can achieve more through the act of collaboration than with their own efforts within a cluster. Hence, there is a linkage between cluster development and collaboration, where clusters evolve and transition into collaborative communities for the reason that it will enable member firms to accomplish more business development. The transition from a cluster to a collaborative community is important as it represents an approach for continuous development and evolvement of clusters both from a theoretical and practical perspective. This is particularly interesting for small clusters such as ACRM. Collaborative community development is not always a result of an evolutionary process, but can also be a planned and purposeful process (Bøllingtoft et al., 2012). Therefore, the transition from a cluster to a collaborative

community can also be a deliberate effort. For this reason, managing the transition process emphasizes the facilitating role of a shared service provider as this role is required in a collaborative community (Bøllingtoft et al., 2012). Adding to this, it is important to take account of the proximity dimensions in the transition process, as they are mechanisms that influence linkages between firms (Boschma, 2005).

In this paper, I develop a conceptual model for the transition from an economic cluster to a collaborative community, which is based on the core architectural elements of a collaborative community design and considers the proximity dimensions both as enablers and barriers to the transition process and collaboration.

The remainder of the paper is organized as follows. First, I provide the theoretical proposition of cluster development and collaborative communities. Then, I present the methodological approach. Thereafter, I investigate expectations and challenges associated with the mining industry in Greenland, which provides a contextual framework and thorough understanding of the subject to support further analysis. This is followed by the analysis, where I analyze cluster development and ACRM, and the collaborative approach to enhance local business development in Greenland. The analysis leads to a transition from ACRM as a cluster into a collaborative community relevant to extractive industries in Greenland. Here, I develop and outline the conceptual model for the transition from an economic cluster to a collaborative community. Lastly, I provide the discussion and a conclusion.

## **CONCLUSION**

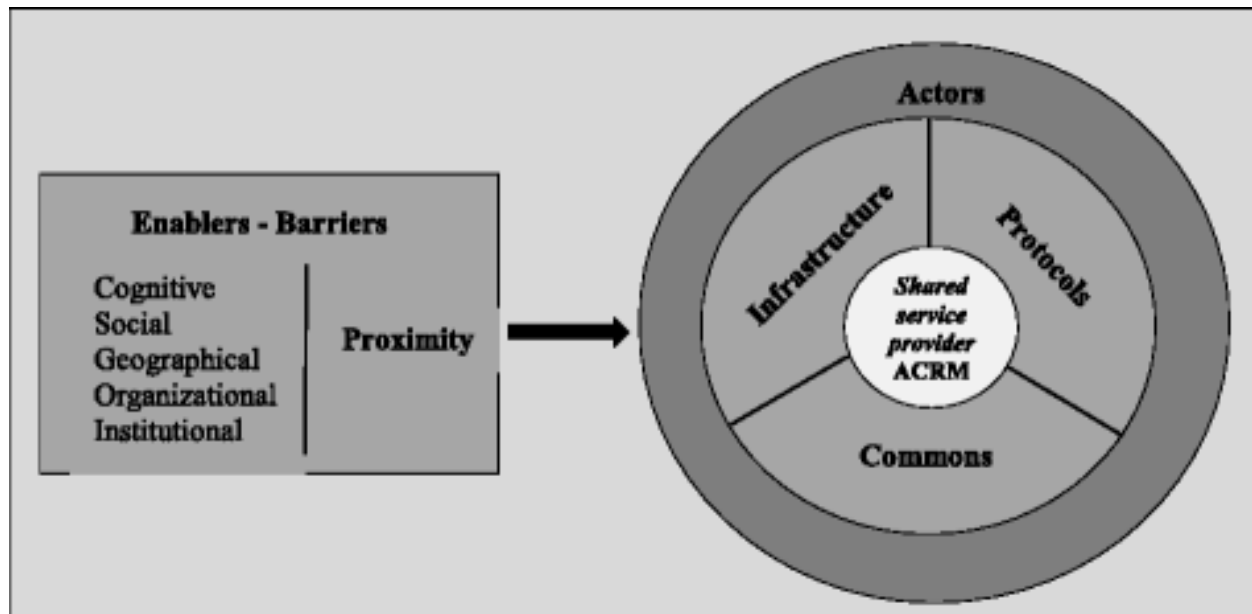
Natural resource extraction is considered a pathway to economic diversification and prosperity for the Greenlandic society. Nevertheless, Greenland's business community is challenged by size limitations, lack of necessary skills, and no extensive experience with the mining industry.

This paper examines the Greenlandic business community and the Arctic Cluster of Raw Materials, ACRM, to enhance local business development in mining projects in Greenland. However, a cluster of interconnected companies does not solve the prevailing limitations of the Greenlandic business community. Collaboration in this context is an approach to enhance capabilities and organize small businesses in remote regions. The analysis directs toward a transition from an economic cluster to a collaborative community. Hence, adapting to the business environment and managing the transition from ACRM as a cluster to a collaborative community enables member firms to realize business development that each single firm cannot achieve with their own efforts. To manage the transition emphasizes the facilitating role, as every collaborative community requires a shared service provider. This expands the role of ACRM by undertaking the facilitating role and performing activities assigned to a shared service provider. In addition, it is necessary to consider the five proximity dimensions (cognitive, social, geographical, organizational, and institutional) as they are mechanisms that influence linkages between actors. This paper presents a conceptual model for the transition process to a collaborative community, which is based on the elements of the collaborative community design and considers the five proximity dimensions as both enablers and barriers to the transition process and collaboration. The transition should set the direction for the Greenlandic business community to engage in collaborations in order to overcome prevailing limitations and enhance local business development derived from the mining industry.

## **APPENDIX**

### **FIGURE 1**

## A CONCEPTUAL MODEL - TRANSITIONING FROM A CLUSTER TO A COLLABORATIVE COMMUNITY



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## **TRANSLATED VERSION: SPANISH**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

## **VERSION TRADUCIDA: ESPAÑOL**

A continuación se muestra una traducción aproximada de las ideas presentadas anteriormente. Esto se hizo para dar una comprensión general de las ideas presentadas en el documento. Por favor, disculpe cualquier error gramatical y no responsabilite a los autores originales de estos errores.

## **INTRODUCCIÓN**

En los últimos años, Groenlandia ha atraído la atención mundial como región fronteriza del ártico para el desarrollo de recursos minerales e hidrocarburos (Nuttall, 2012). Al igual que otras economías árticas, la estructura industrial en Groenlandia está dominada por la pesca y la caza de muy pocas especies (Duhaimé y Caron, 2006; Larsen, 2010; En 2012, que pone de relieve la vulnerabilidad de la economía de Groenlandia. Una industria minera representa una oportunidad para el crecimiento económico y los efectos positivos en las empresas locales y el empleo (Gobierno de Groenlandia, 2014; Ministerio de Relaciones Exteriores, 2011). Sin embargo, la comunidad empresarial groenlandesa se enfrenta a las limitaciones de tamaño, la falta de experiencia previa con la industria minera y las competencias necesarias (Copenhagen Economics, 2012; El comité de recursos minerales groenlandeses en beneficio de la sociedad, 2014; En 2012.

En 2013, la Confederación de la Industria Danesa (DI), la Fundación Danesa de la Industria (IF), la Asociación Empresarial de Groenlandia (GA) y la Universidad Técnica de Dinamarca (DTU) establecieron un clúster relevante para las industrias extractivas de Groenlandia, la Asociación Empresarial de Groenlandia (GA). El clúster sirve como plataforma para empresas con interés en las industrias extractivas de Groenlandia (Jakobsen y Lyne, 2013). El objetivo principal de ACRM es fortalecer la competitividad, aumentar las posibilidades de subcontratistas para proyectos mineros en Groenlandia y crear conciencia



sobre la exploración de minerales en Groenlandia y el ártico (Arctic Cluster of Raw Materials, 2016; Jakobsen, 2013).

El establecimiento y la colaboración en clúster se considera beneficioso para la comunidad empresarial groenlandesa con el fin de aumentar el potencial empresarial (El comité de recursos minerales groenlandeses en beneficio de la sociedad, 2014). Por lo tanto, investigo la capacidad del desarrollo de clústeres y el enfoque colaborativo para mejorar el desarrollo de negocios locales y la aplicación de las empresas groenlandesas en proyectos mineros. En este artículo, aplico un diseño detallado de un solo caso de estudio (Yin, 2014) basado en datos de entrevistas y apoyado con fuentes de datos secundarias como informes, investigación, documentos y estadísticas.

Las empresas de diversas industrias se juntan en diferentes tipos de clusters y redes. Los clusters industriales son motores poderosos para la creación de riqueza (Mathews, 2012; Ghadar et al., 2012). Abarcan las clasificaciones tradicionales de la industria y son concentraciones de empresas e instituciones interconectadas co-ubicadas en una región geográfica específica y vinculadas por puntos en común y complementariedades en un campo particular (Ketels, 2003; Porter, 1998, 2000; Porter et al., 2004). Esto representa una nueva forma de pensar sobre las economías locales (Porter, 1998, 2000). Esto es bien reconocido y objeto de mayor atención (Mathews, 2012). Los clusters representan un entorno en el que se llevan a cabo tanto las actividades de producción tradicionales como las actividades empresariales e innovadoras (Mathews, 2012). Las empresas que forman parte de un clúster pueden realizar muchas más actividades al tener acceso a más recursos sobre la empresa única y aislada, y expandir el mercado de sus productos y servicios (Mathews, 2012). En última instancia, un clúster es un sistema en el que las interconexiones entre los miembros dan lugar a un todo mayor que la suma de sus partes (Porter, 1998, 2000). Las empresas dentro de los clústeres forman vínculos. La colaboración y los vínculos entre las organizaciones en los clusters están influenciados por cinco dimensiones de proximidad: geográfica, social, cognitiva, organizativa e institucional (Belso-Martinez, 2016; Molina-Morales et al., 2015; Boschma, 2005). La limitación y el exceso de proximidad pueden impedir el éxito de los vínculos intereuropeos (Boschma, 2005).

En la extensión del desarrollo de clústeres, las industrias están repensando sus procesos de negocio (Daft et al., 2010). Las empresas se enfrentan cada vez más a presiones competitivas debido a la adaptación continua a un entorno dinámico (Fjeldstad et al., 2012). En respuesta a los desafíos apremiantes, está surgiendo una nueva forma organizativa, basada en un diseño comunitario colaborativo (B-llingtoft et al., 2012; Fjeldstad et al., 2012; Miles et al., 2010; Snow, 2012; Snow et al., 2011; Snow et al., 2009). La colaboración es un proceso en el que al menos dos partes trabajan juntas para lograr resultados mutuamente beneficiosos, como la resolución de un problema o la creación de un nuevo negocio (Miles et al., 2005; Miles et al., 2000; Tencati y Zsolnai, 2009). Las empresas pueden lograr una ventaja competitiva uniéndose a los recursos y lograr más a un ritmo más rápido que por sí solas (B-llingtoft et al., 2012; Daft et al., 2010; Miles et al., 2005; Schilling, 2010; Snow et al., 2011). La colaboración entre las PYME puede ser una estrategia ventajosa para superar las limitaciones financieras y de recursos y fortalecer su posición en el mercado (Franco, 2003). Las pequeñas empresas están particularmente motivadas por ventajas competitivas, que incluyen la entrada en nuevos mercados; mejorar el nivel de innovación; compartir recursos y competencias; alcanzar economías de escala; y el aumento de la capacidad de producción (Franco, 2003).

Las empresas dentro de un clúster que enfrentan desafíos y limitaciones, como las de la comunidad empresarial groenlandesa, pueden lograr más a través del acto de colaboración que con los esfuerzos propios dentro de un clúster. Por lo tanto, existe un vínculo entre el desarrollo de clústeres y la colaboración, donde los clústeres evolucionan y pasan a comunidades colaborativas por la razón de que permitirá a las empresas miembros lograr más desarrollo empresarial. La transición de un clúster a una comunidad colaborativa es importante, ya que representa un enfoque para el desarrollo continuo y la evolución de los clusters tanto desde una perspectiva teórica como práctica. Esto es particularmente interesante para clústeres pequeños como ACRM. El desarrollo comunitario colaborativo no siempre es el resultado de un proceso evolutivo, sino que también puede ser un proceso planificado y con propósito (B-llingtoft et al., 2012). Por lo tanto, la transición de un clúster a una comunidad colaborativa también puede ser un esfuerzo deliberado. Por esta

razón, la gestión del proceso de transición hace hincapié en el papel de facilitar a un proveedor de servicios compartidos, ya que este rol es necesario en una comunidad colaborativa (B-llingtoft et al., 2012). Además, es importante tener en cuenta las dimensiones de proximidad en el proceso de transición, ya que son mecanismos que influyen en los vínculos entre empresas (Boschma, 2005).

En este artículo, desarrollo un modelo conceptual para la transición de un clúster económico a una comunidad colaborativa, que se basa en los elementos arquitectónicos centrales de un diseño comunitario colaborativo y considera las dimensiones de proximidad tanto como facilitadores como barreras para el proceso de transición y la colaboración.

El resto del documento se organiza de la siguiente manera. En primer lugar, ofrezco la propuesta teórica de desarrollo de clusters y comunidades colaborativas. Luego, presento el enfoque metodológico. A partir de entonces, investigo las expectativas y desafíos asociados con la industria minera en Groenlandia, que proporciona un marco contextual y una comprensión profunda del tema para apoyar un análisis más profundo. Esto es seguido por el análisis, donde analizo el desarrollo de clústeres y ACRM, y el enfoque colaborativo para mejorar el desarrollo de negocios locales en Groenlandia. El análisis conduce a una transición de ACRM como un clúster a una comunidad colaborativa relevante para las industrias extractivas en Groenlandia. Aquí, desarrollo y esbozo el modelo conceptual para la transición de un clúster económico a una comunidad colaborativa. Por último, apongo el debate y una conclusión.

## **CONCLUSIÓN**

La extracción de recursos naturales se considera un camino hacia la diversificación económica y la prosperidad para la sociedad groenlandesa. Sin embargo, la comunidad empresarial de Groenlandia se enfrenta a las limitaciones de tamaño, la falta de habilidades necesarias y la no amplia experiencia con la industria minera.

Este documento examina la comunidad empresarial groenlandesa y el Arctic Cluster of Raw Materials, ACRM, para mejorar el desarrollo de negocios locales en proyectos mineros en Groenlandia. Sin embargo, un grupo de empresas interconectadas no resuelve las limitaciones prevalecientes de la comunidad empresarial groenlandesa. La colaboración en este contexto es un enfoque para mejorar las capacidades y organizar a las pequeñas empresas en regiones remotas. El análisis se dirige hacia una transición de un clúster económico a una comunidad colaborativa. Por lo tanto, adaptarse al entorno empresarial y gestionar la transición de ACRM como clúster a una comunidad colaborativa permite a las empresas miembros realizar un desarrollo empresarial que cada empresa no puede lograr con esfuerzos propios. Gestionar la transición hace hincapié en el papel de facilitar, ya que cada comunidad colaborativa requiere un proveedor de servicios compartido. Esto amplía el papel de ACRM al realizar el papel de facilitar y realizar actividades asignadas a un proveedor de servicios compartidos. Además, es necesario tener en cuenta las cinco dimensiones de proximidad (cognitivas, sociales, geográficas, organizativas e institucionales) ya que son mecanismos que influyen en los vínculos entre los actores. Este documento presenta un modelo conceptual para el proceso de transición a una comunidad colaborativa, que se basa en los elementos del diseño comunitario colaborativo y considera las cinco dimensiones de proximidad como facilitadores y barreras para el proceso de transición y la colaboración. La transición debe establecer la dirección para que la comunidad empresarial groenlandesa participe en colaboraciones con el fin de superar las limitaciones prevalecientes y mejorar el desarrollo empresarial local derivado de la industria minera.

## **TRANSLATED VERSION: FRENCH**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

## **VERSION TRADUITE: FRANÇAIS**

Voici une traduction approximative des idées présentées ci-dessus. Cela a été fait pour donner une compréhension générale des idées présentées dans le document. Veuillez excuser toutes les erreurs grammaticales et ne pas tenir les auteurs originaux responsables de ces erreurs.

## INTRODUCTION

Au cours des dernières années, le Groenland a attiré l'attention du monde entier en tant que région frontalière de l'Arctique pour le développement des ressources minérales et d'hydrocarbures (Nuttall, 2012). À l'instar d'autres économies de l'Arctique, la structure industrielle du Groenland est dominée par la pêche et la chasse de très peu d'espèces (Duhaim et Caron, 2006; Larsen, 2010; Økonomisk Råd, 2012), qui met l'accent sur la vulnérabilité de l'économie du Groenland. Une industrie minière représente une opportunité de croissance économique et d'effets positifs sur les entreprises locales et l'emploi (Gouvernement du Groenland, 2014; ministère des Affaires étrangères, 2011). Néanmoins, le milieu des affaires groenlandais est confronté à des limitations de taille, à un manque d'expérience préalable dans l'industrie minière et aux compétences nécessaires (Copenhagen Economics, 2012; Le comité des ressources minérales groenlandaises au profit de la société, 2014; Økonomisk Råd, 2012).

Un cluster pertinent pour les industries extractives au Groenland, Arctic Cluster of Raw Materials (ACRM) a été créé en 2013 par la Confédération de l'industrie danoise (DI), la Danish Industry Foundation (IF), la Greenland Business Association (GA) et l'Université technique du Danemark (DTU). Le cluster sert de plate-forme pour les entreprises qui s'intéressent aux industries extractives du Groenland (Jakobsen et Lyne, 2013). L'objectif principal de l'acrm est de renforcer la compétitivité, d'accroître les possibilités pour les sous-traitants de projets miniers au Groenland et de sensibiliser la population à l'exploration minière au Groenland et dans l'Arctique (Arctic Cluster of Raw Materials, 2016; Jakobsen, 2013).

L'établissement et la collaboration en grappes sont considérés comme bénéfiques pour la communauté d'affaires groenlandaise afin d'accroître le potentiel commercial (Le comité des ressources minérales groenlandaises au profit de la société, 2014). J'étudie donc la capacité du développement de grappes et l'approche collaborative pour améliorer le développement et l'application des entreprises locales dans les projets miniers. Dans ce document, j'applique une conception approfondie d'une seule étude de cas (Yin, 2014) basée sur des données provenant d'entrevues et étayée par des sources de données secondaires telles que des rapports, des recherches, des documents et des statistiques.

Les entreprises de diverses industries cohérent ensemble dans différents types de grappes et de réseaux. Les grappes industrielles sont de puissants moteurs de la création de richesse (Mathews, 2012; Ghadar et coll., 2012). Elles s'étendent à l'ensemble des classifications traditionnelles de l'industrie et sont des concentrations d'entreprises et d'institutions interconnectées co-situées dans une région géographique spécifique et liées par des points communs et des complémentarités dans un domaine particulier (Ketels, 2003; Porter, 1998, 2000; Porter et coll., 2004). Il s'agit d'une nouvelle façon de penser les économies locales (Porter, 1998, 2000). Ceci est bien reconnu et objet d'une attention accrue (Mathews, 2012). Les grappes représentent un cadre dans lequel les activités de production traditionnelles et les activités entrepreneuriales et innovantes ont lieu (Mathews, 2012). Les entreprises qui font partie d'un groupe peuvent accomplir beaucoup plus d'activités en ayant accès à plus de ressources par rapport à l'entreprise isolée et en élargissant le marché de leurs produits et services (Mathews, 2012). En fin de compte, un cluster est un système où les interconnexions entre les membres donnent lieu à un tout supérieur à la somme de ses parties (Porter, 1998, 2000). Les entreprises au sein des grappes forment des liens. La collaboration et les liens entre les organisations en grappes sont influencés par cinq dimensions de proximité : géographique, sociale, cognitive, organisationnelle et institutionnelle (Belso-Martinez, 2016; Molina-Morales et coll., 2015; Boschma, 2005). La limitation et l'excès de proximité peuvent empêcher des liens interorgan organisationnels réussis (Boschma, 2005).

Dans le prolongement du développement des grappes, les industries repensent leurs processus d'affaires (Daft et al., 2010). Les entreprises sont de plus en plus confrontées à des pressions concurrentielles en raison de l'adaptation continue à un environnement dynamique (Fjeldstad et al., 2012). En réponse aux défis pressants, une nouvelle forme organisationnelle est en train d'émerger, basée sur un

développement communautaire collaboratif (Bøllingtoft et al., 2012; Fjeldstad et coll., 2012; Miles et coll., 2010; Neige, 2012; Snow et coll., 2011; Snow et coll., 2009). La collaboration est un processus où au moins deux parties travaillent ensemble pour obtenir des résultats mutuellement avantageux, comme la résolution d'un problème ou la création d'une nouvelle entreprise (Miles et coll., 2005; Miles et coll., 2000; Tencati et Zsolnai, 2009). Les entreprises peuvent obtenir un avantage concurrentiel en se joignant aux ressources et en accomplissant plus à un rythme plus rapide qu'elles ne le peuvent par elles-mêmes (Bøllingtoft et al., 2012; Daft et coll., 2010; Miles et coll., 2005; Schilling, 2010; Snow et coll., 2011). La collaboration entre les PME peut être une stratégie avantageuse pour surmonter les limites financières et de ressources et renforcer leur position sur le marché (Franco, 2003). Les petites entreprises sont particulièrement motivées par des avantages concurrentiels, notamment l'entrée sur de nouveaux marchés; l'amélioration du niveau d'innovation; le partage des ressources et des compétences; réaliser des économies d'échelle; et l'augmentation de la capacité de production (Franco, 2003).

Les entreprises d'un groupe qui font face à des défis et des limites, comme celles de la communauté d'affaires groenlandaise, peuvent réaliser plus par l'acte de collaboration qu'avec leurs propres efforts au sein d'un groupe. Par conséquent, il existe un lien entre le développement des grappes et la collaboration, où les grappes évoluent et passent vers des communautés collaboratives pour la raison qu'elles permettront aux entreprises membres d'effectuer davantage de développement des affaires. La transition d'une grappe à une communauté collaborative est importante car elle représente une approche pour le développement continu et l'évolution des grappes à la fois d'un point de vue théorique et pratique. Ceci est particulièrement intéressant pour les petits clusters tels que l'acrm. Le développement communautaire collaboratif n'est pas toujours le résultat d'un processus évolutif, mais peut aussi être un processus planifié et ciblé (Bøllingtoft et al., 2012). Par conséquent, la transition d'une grappe à une communauté collaborative peut aussi être un effort délibéré. Pour cette raison, la gestion du processus de transition met l'accent sur le rôle de facilitation d'un fournisseur de services partagés, car ce rôle est requis dans une communauté collaborative (Bøllingtoft et al., 2012). En plus de cela, il est important de tenir compte des dimensions de proximité du processus de transition, car ce sont des mécanismes qui influencent les liens entre les entreprises (Boschma, 2005).

Dans cet article, je développe un modèle conceptuel pour la transition d'une grappe économique à une communauté collaborative, qui est basé sur les éléments architecturaux de base d'une conception communautaire collaborative et considère les dimensions de proximité à la fois comme des facilitateurs et des obstacles au processus de transition et à la collaboration.

Le reste du document est organisé comme suit. Tout d'abord, je propose théoriquement le développement de grappes et les communautés collaboratives. Ensuite, je présente l'approche méthodologique. Par la suite, j'étudie les attentes et les défis associés à l'industrie minière au Groenland, qui fournit un cadre contextuel et une compréhension approfondie du sujet à l'appui d'une analyse plus approfondie. Suivent l'analyse, où j'analyse le développement de grappes et l'acrm, et l'approche collaborative visant à améliorer le développement des entreprises locales au Groenland. L'analyse conduit à une transition de l'acrm en tant que cluster en une communauté collaborative pertinente pour les industries extractives au Groenland. Ici, j'élabore et dessine le modèle conceptuel pour la transition d'une grappe économique à une communauté collaborative. Enfin, je donne la discussion et une conclusion.

## CONCLUSION

L'extraction des ressources naturelles est considérée comme une voie de diversification économique et de prospérité pour la société groenlandaise. Néanmoins, le milieu des affaires du Groenland est confronté à des limites de taille, à un manque de compétences nécessaires et à l'absence d'une vaste expérience de l'industrie minière.

Ce document examine la communauté d'affaires groenlandaise et le Cluster de matières premières de l'Arctique, ACRM, afin d'améliorer le développement des entreprises locales dans les projets miniers au Groenland. Cependant, un groupe d'entreprises interconnectées ne résout pas les limites actuelles de la communauté d'affaires groenlandaise. La collaboration dans ce contexte est une approche visant à

améliorer les capacités et à organiser les petites entreprises dans les régions éloignées. L'analyse oriente vers une transition d'une grappe économique à une communauté collaborative. Par conséquent, l'adaptation à l'environnement des affaires et la gestion de la transition de l'acrm en tant que cluster à une communauté collaborative permet aux entreprises membres de réaliser le développement des affaires que chaque entreprise ne peut pas réaliser avec ses propres efforts. Pour gérer la transition met l'accent sur le rôle de facilitation, comme chaque communauté collaborative a besoin d'un fournisseur de services partagés. Cela élargit le rôle de l'acrm en assurant le rôle de facilitation et en effectuant les activités assignées à un fournisseur de services partagés. En outre, il est nécessaire de considérer les cinq dimensions de proximité (cognitives, sociales, géographiques, organisationnelles et institutionnelles) car elles sont des mécanismes qui influencent les liens entre les acteurs. Cet article présente un modèle conceptuel pour le processus de transition vers une communauté collaborative, qui est basé sur les éléments de la conception communautaire collaborative et considère les cinq dimensions de proximité comme étant à la fois des facteurs et des obstacles au processus de transition et à la collaboration. La transition devrait permettre à la communauté d'affaires groenlandaise de s'engager dans des collaborations afin de surmonter les limites actuelles et d'améliorer le développement des affaires locales découlant de l'industrie minière.

### **TRANSLATED VERSION: GERMAN**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

### **ÜBERSETZTE VERSION: DEUTSCH**

Hier ist eine ungefähre Übersetzung der oben vorgestellten Ideen. Dies wurde getan, um ein allgemeines Verständnis der in dem Dokument vorgestellten Ideen zu vermitteln. Bitte entschuldigen Sie alle grammatikalischen Fehler und machen Sie die ursprünglichen Autoren nicht für diese Fehler verantwortlich.

### **EINLEITUNG**

In den letzten Jahren hat Grönland als Grenzregion der Arktis weltweite Aufmerksamkeit für die Entwicklung von Mineral- und Kohlenwasserstoffressourcen erregt (Nuttall, 2012). Ähnlich wie in anderen arktischen Volkswirtschaften wird die Industriestruktur Grönlands von der Fischerei und Jagd auf sehr wenige Arten dominiert (Duhaime und Caron, 2006; Larsen, 2010; Konomisk, 2012), das die Verwundbarkeit der grönlandwirtschaftlichen Wirtschaft unterstreicht. Ein Bergbau ist eine Chance für Wirtschaftswachstum und positive Auswirkungen auf lokale Unternehmen und Beschäftigung (Regierung Grönlands, 2014; Ministerium für auswärtige Angelegenheiten, 2011). Dennoch wird die grönländische Wirtschaft durch Größenbeschränkungen, mangelnde Erfahrungen mit der Bergbauindustrie und notwendige Kompetenzen herausgefordert (Copenhagen Economics, 2012; Der Ausschuss für grönländische Bodenschätze zum Wohle der Gesellschaft, 2014; Konomisk Råd, 2012).

Ein Cluster, der für die mineralgewinnende Industrie in Grönland relevant ist, Arctic Cluster of Raw Materials (ACRM), wurde 2013 vom Verband der dänischen Industrie (DI), der Dänischen Industriestiftung (IF), der Grönländischen Wirtschaftsvereinigung (GA) und der Technischen Universität Dänemarks (DTU) gegründet. Der Cluster dient als Plattform für Unternehmen mit Interesse an der mineralgewinnenden Industrie in Grönland (Jakobsen und Lyne, 2013). Der Hauptzweck von ACRM besteht darin, die Wettbewerbsfähigkeit zu stärken, die Möglichkeiten für Subunternehmer von Bergbauprojekten in Grönland zu erhöhen und das Bewusstsein für die Exploration von Mineralien in Grönland und der Arktis zu schärfen (Arctic Cluster of Raw Materials, 2016; Jakobsen, 2013).

Cluster-Einrichtung und Zusammenarbeit wird als vorteilhaft für die grönländische Wirtschaft angesehen, um das Geschäftspotenzial zu erhöhen (Der Ausschuss für grönländische Bodenschätze zum

Nutzen der Gesellschaft, 2014). Ich ermittele daher die Fähigkeit der Clusterentwicklung und den kollaborativen Ansatz, um die lokale Geschäftsentwicklung und die Anwendung grönländischer Unternehmen in Bergbauprojekten zu verbessern. In diesem Beitrag wende ich ein detailliertes Einzelfall-Studiendesign (Yin, 2014) auf der Grundlage von Daten aus Interviews an, die mit sekundären Datenquellen wie Berichten, Recherchen, Dokumenten und Statistiken unterstützt werden.

Unternehmen aus verschiedenen Branchen schließen sich in verschiedenen Clustern und Netzwerken zusammen. Industriecluster sind mächtige Motoren zur Schaffung von Wohlstand (Mathews, 2012; Ghadar et al., 2012). Sie schneiden sich über traditionelle Branchenklassifikationen und sind Zusammenschlüsse von miteinander verbundenen Unternehmen und Institutionen, die sich in einer bestimmten geografischen Region befinden und durch Gemeinsamkeiten und Komplementaritäten in einem bestimmten Bereich miteinander verbunden sind (Ketels, 2003; Porter, 1998, 2000; Porter et al., 2004). Dies stellt eine neue Denkweise über die lokale Wirtschaft dar (Porter, 1998, 2000). Dies ist gut anerkannt und Objekt der erhöhten Aufmerksamkeit (Mathews, 2012). Cluster stellen einen Rahmen dar, in dem sowohl traditionelle Produktionsaktivitäten als auch unternehmerische und innovative Aktivitäten stattfinden (Mathews, 2012). Unternehmen, die Teil eines Clusters sind, können viel mehr Aktivitäten durchführen, indem sie über ein isoliertes Unternehmen Zugang zu mehr Ressourcen haben und den Markt für ihre Produkte und Dienstleistungen erweitern (Mathews, 2012). Letztlich ist ein Cluster ein System, bei dem Verbindungen zwischen Mitgliedern zu einem Ganzen führen, das größer ist als die Summe seiner Teile (Porter, 1998, 2000). Unternehmen innerhalb von Clustern bilden Verknüpfungen. Die Zusammenarbeit und Verknüpfungen zwischen Organisationen in Clustern werden durch fünf Räumliche, soziale, kognitive, organisatorische und institutionelle Dimensionen beeinflusst (Belso-Martinez, 2016; Molina-Morales et al., 2015; Boschma, 2005). Begrenzung und Überschreitung der Nähe können erfolgreiche organisatorische Zusammenhänge verhindern (Boschma, 2005).

In der Erweiterung der Clusterentwicklung überdenken die Industrien ihre Geschäftsprozesse (Daft et al., 2010). Die Unternehmen sehen sich aufgrund der kontinuierlichen Anpassung an ein dynamisches Umfeld zunehmend einem Wettbewerbsdruck ausgesetzt (Fjeldstad et al., 2012). Als Reaktion auf die drängenden Herausforderungen entsteht eine neue Organisationsform, die auf einem kollaborativen Community-Design basiert (b'lingtoft et al., 2012; Fjeldstad et al., 2012; Miles et al., 2010; Schnee, 2012; Snow et al., 2011; Snow et al., 2009). Zusammenarbeit ist ein Prozess, bei dem mindestens zwei Parteien zusammenarbeiten, um für beide Seiten vorteilhafte Ergebnisse zu erzielen, wie z. B. Die Lösung eines Problems oder die Gründung eines neuen Unternehmens (Miles et al., 2005; Miles et al., 2000; Tencati und Zsolnai, 2009). Unternehmen können sich einen Wettbewerbsvorteil verschaffen, indem sie Ressourcen bündeln und schneller mehr erreichen als sie es allein können (b'lingtoft et al., 2012; Daft et al., 2010; Miles et al., 2005; Schilling, 2010; Snow et al., 2011). Die Zusammenarbeit zwischen KMU kann eine vorteilhafte Strategie sein, um finanzielle und Ressourcenbeschränkungen zu überwinden und ihre Marktposition zu stärken (Franco, 2003). Kleine Unternehmen sind besonders von Wettbewerbsvorteilen motiviert, zu denen auch der Eintritt in neue Märkte gehört; Verbesserung des Innovationsniveaus; gemeinsame Nutzung von Ressourcen und Kompetenzen; Erzielen von Größenvorteilen; Und die Erhöhung der Produktionskapazität (Franco, 2003).

Unternehmen innerhalb eines Clusters, die mit Herausforderungen und Einschränkungen konfrontiert sind, wie z. B. Die der grönländischen Geschäftswelt, können durch den Akt der Zusammenarbeit mehr erreichen als mit eigenen Anstrengungen innerhalb eines Clusters. Daher besteht eine Verbindung zwischen Clusterentwicklung und Zusammenarbeit, bei der Cluster sich entwickeln und in kollaborative Communities übergehen, weil sie es den Mitgliedsunternehmen ermöglichen, mehr Geschäftsentwicklung zu erreichen. Der Übergang von einem Cluster zu einer kollaborativen Community ist wichtig, da er einen Ansatz für die kontinuierliche Weiterentwicklung und Weiterentwicklung von Clustern sowohl aus theoretischer als auch aus praktischer Sicht darstellt. Dies ist besonders für kleine Cluster wie ACRM interessant. Die kollaborative Community-Entwicklung ist nicht immer das Ergebnis eines evolutionären Prozesses, sondern kann auch ein geplanter und zielgerichteter Prozess sein (b'lingtoft et al., 2012). Daher kann der Übergang von einem Cluster zu einer kollaborativen Community auch eine bewusste Anstrengung sein. Aus diesem Grund betont die Verwaltung des Übergangsprozesses die erleichternde Rolle eines

Anbieters von gemeinsam genutzten Diensten, da diese Rolle in einer kollaborativen Gemeinschaft erforderlich ist (Billingtoft et al., 2012). Hinzu kommt, dass die Nahrungsdimensionen im bergangsprozess bercksichtigt werden mussen, da es sich um Mechanismen handelt, die die Verbindungen zwischen Unternehmen beeinflussen (Boschma, 2005).

In diesem Beitrag entwickle ich ein konzeptionelles Modell fur den bergang von einem wirtschaftlichen Cluster zu einer kollaborativen Gemeinschaft, das auf den zentralen architektonischen Elementen eines kollaborativen Community-Designs basiert und die Nahrungsdimensionen sowohl als Ermoglicher als auch als Hindernisse fur den bergangsprozess und die Zusammenarbeit betrachtet.

Der Rest des Papiers ist wie folgt organisiert. Zunachst stelle ich den theoretischen Vorschlag der Clusterentwicklung und kollaborativer Gemeinschaften zur Verfugung. Dann presentiere ich den methodischen Ansatz. Danach ermittele ich die Erwartungen und Herausforderungen im Zusammenhang mit der Bergbauindustrie in Gronland, die einen kontextuellen Rahmen und ein grundliches Verstandnis des Themas bietet, um weitere Analysen zu unterstutzen. Es folgen die Analyse, bei der ich die Clusterentwicklung und ACRM analysiere, und der kollaborative Ansatz zur Verbesserung der lokalen Geschaftsentwicklung in Gronland. Die Analyse fuhrt zu einem bergang von ACRM als Cluster zu einer kollaborativen Gemeinschaft, die fur die mineralgewinnende Industrie in Gronland relevant ist. Hier entwickle und skizziere ich das konzeptionelle Modell fur den bergang von einem Wirtschaftscluster zu einer kollaborativen Community. Abschlieend mochte ich die Diskussion und eine Schlussfolgerung anfuhren.

## **SCHLUSSFOLGERUNG**

Die Gewinnung naturlicher Ressourcen gilt als Weg zur wirtschaftlichen Diversifizierung und zum Wohlstand der gronlandischen Gesellschaft. Dennoch wird Gronlands Geschaftswelt durch Groenbeschrankungen, mangelnde Fahigkeiten und keine umfangreiche Erfahrung mit der Bergbauindustrie herausgefordert.

In diesem Beitrag werden die gronlandische Geschaftswelt und der Arktische Rohstoffcluster ACRM untersucht, um die lokale Geschaftsentwicklung bei Bergbauprojekten in Gronland zu verbessern. Ein Cluster miteinander verbundener Unternehmen lost jedoch nicht die vorherrschenden Einschrankungen der gronlandischen Geschaftswelt. Die Zusammenarbeit in diesem Zusammenhang ist ein Ansatz zur Verbesserung der Fahigkeiten und zur Organisation kleiner Unternehmen in abgelegenen Regionen. Die Analyse fuhrt auf einen bergang von einem wirtschaftlichen Cluster zu einer kollaborativen Gemeinschaft. Daher ermoglicht die Anpassung an das Geschaftsumfeld und die Bewaltigung des bergangs von ACRM als Cluster zu einer kollaborativen Community den Mitgliedsunternehmen, Geschaftsentwicklung zu realisieren, die jedes einzelne Unternehmen nicht mit eigenen Anstrengungen erreichen kann. Um den bergang zu verwalten, wird die unterstutzende Rolle hervorgehoben, da jede kollaborative Community einen gemeinsamen Dienstleister benotigt. Dadurch wird die Rolle von ACRM erweitert, indem die erleichternde Rolle und die Durchfuhrung von Aktivitaten, die einem Anbieter von gemeinsam genutzten Diensten zugewiesen sind, durchgefuhrt wird. Daruber hinaus ist es notwendig, die funf Nahe-Dimensionen (kognitive, soziale, geografische, organisatorische und institutionelle) zu bercksichtigen, da sie Mechanismen sind, die Verbindungen zwischen Akteuren beeinflussen. Dieses Papier stellt ein konzeptionelles Modell fur den bergangsprozess zu einer kollaborativen Gemeinschaft vor, das auf den Elementen des kollaborativen Community-Designs basiert und die funf Nahrungsdimensionen sowohl als Ermoglicher als auch als Hindernisse fur den bergangsprozess und die Zusammenarbeit betrachtet. Der bergang sollte die Richtung fur die gronlandische Wirtschaft vorgeben, kooperierend zusammenzuarbeiten, um die vorherrschenden Beschrankungen zu uberwinden und die lokale Geschaftsentwicklung aus dem Bergbau zu fordern.

## **TRANSLATED VERSION: PORTUGUESE**

Below is a rough translation of the insights presented above. This was done to give a general understanding of the ideas presented in the paper. Please excuse any grammatical mistakes and do not hold the original authors responsible for these mistakes.

## **VERSÃO TRADUZIDA: PORTUGUÊS**

Aqui está uma tradução aproximada das ideias acima apresentadas. Isto foi feito para dar uma compreensão geral das ideias apresentadas no documento. Por favor, desculpe todos os erros gramaticais e não responsabilize os autores originais responsáveis por estes erros.

## **INTRODUÇÃO**

Nos últimos anos, a Gronelândia tem atraído a atenção global como região fronteira do Ártico para o desenvolvimento de recursos minerais e hidrocarbonetos (Nuttall, 2012). À semelhança de outras economias do Ártico, a estrutura industrial na Gronelândia é dominada pela pesca e caça de poucas espécies (Duhaime e Caron, 2006; Larsen, 2010; Økonomisk Råd, 2012), que enfatiza a vulnerabilidade da economia da Gronelândia. Uma indústria mineira representa uma oportunidade de crescimento económico e de efeitos positivos nas empresas locais e no emprego (Governo da Gronelândia, 2014; Ministério dos Negócios Estrangeiros, 2011). No entanto, a comunidade empresarial da Gronelândia é desafiada por limitações de dimensão, falta de experiência prévia com a indústria mineira e competências necessárias (Copenhagen Economics, 2012; A Comissão dos Recursos Minerais da Gronelândia em benefício da sociedade, 2014; Økonomisk Råd, 2012).

Um cluster relevante para as indústrias extrativas na Gronelândia, Aglomerado De Matérias-Primas do Ártico (ACRM), foi criado em 2013 pela Confederação da Indústria Dinamarquesa (DI), pela Fundação da Indústria Dinamarquesa (IF), pela Greenland Business Association (GA) e pela Universidade Técnica da Dinamarca (DTU). O cluster serve como uma plataforma para empresas com interesse nas indústrias extrativas na Gronelândia (Jakobsen e Lyne, 2013). O principal objetivo da ACRM é reforçar a competitividade, aumentar as possibilidades dos subcontratantes a projetos mineiros na Gronelândia e sensibilizar para a exploração mineral na Gronelândia e no Ártico (Cluster Ártico de Matérias-Primas, 2016; Jakobsen, 2013).

O estabelecimento e colaboração do cluster é considerado benéfico para a comunidade empresarial da Gronelândia de forma a aumentar o potencial de negócios (A comissão dos recursos minerais da Gronelândia em benefício da sociedade, 2014). Por conseguinte, investigo a capacidade de desenvolvimento de clusters e a abordagem colaborativa para melhorar o desenvolvimento de negócios locais e a aplicação das empresas da Gronelândia em projetos mineiros. Neste artigo, aplico um desenho de estudo único aprofundado (Yin, 2014) baseado em dados de entrevistas e suportados com fontes de dados secundárias, tais como relatórios, pesquisas, documentos e estatísticas.

Empresas de várias indústrias coadunam-se em diferentes tipos de agrupamentos e redes. Os clusters industriais são motores poderosos para a criação de riqueza (Mathews, 2012; Ghadar et al., 2012). Atravessam as classificações tradicionais da indústria e são concentrações de empresas e instituições interligadas co-localizadas numa região geográfica específica e ligadas por comunhões e complementaridades num determinado domínio (Ketels, 2003; Porter, 1998, 2000; Porter et al., 2004). Isto representa uma nova forma de pensar sobre as economias locais (Porter, 1998, 2000). Este é bem reconhecido e objeto de maior atenção (Mathews, 2012). Os clusters representam um cenário em que se realizam tanto as atividades tradicionais de produção como as atividades empresariais e inovadoras (Mathews, 2012). As empresas que fazem parte de um cluster podem realizar muitas mais atividades, tendo acesso a mais recursos sobre a empresa isolada e única, e expandindo o mercado para os seus produtos e serviços (Mathews, 2012). Em última análise, um cluster é um sistema onde as interconexões entre membros resultam num todo que é maior do que a soma das suas partes (Porter, 1998, 2000). As empresas dentro de clusters formam ligações. A colaboração e as ligações entre organizações em clusters são influenciadas por cinco dimensões de proximidade: geográfica, social, cognitiva, organizacional e



institucional (Belso-Martinez, 2016; Molina-Morales et al., 2015; Boschma, 2005). A limitação e o excesso de proximidade podem impedir ligações inter-organizacionais bem sucedidas (Boschma, 2005).

Em extensão do desenvolvimento de clusters, as indústrias estão a repensar os seus processos de negócio (Daft et al., 2010). As empresas estão cada vez mais confrontadas com pressões competitivas devido à adaptação contínua a um ambiente dinâmico (Fjeldstad et al., 2012). Em resposta aos desafios prementes, está a emergir uma nova forma organizacional, baseada num design comunitário colaborativo (Bøllingtoft et al., 2012; Fjeldstad et al., 2012; Miles et al., 2010; Neve, 2012; Neve et al., 2011; Neve et al., 2009). A colaboração é um processo em que pelo menos duas partes trabalham em conjunto para alcançar resultados mutuamente benéficos, tais como a resolução de um problema ou a criação de um novo negócio (Miles et al., 2005; Miles et al., 2000; Tencati e Zsolnai, 2009). As empresas podem obter vantagens competitivas juntando recursos e realizando mais a um ritmo mais rápido do que podem por si sós (Bøllingtoft et al., 2012; Daft et al., 2010; Miles et al., 2005; Schilling, 2010; Neve et al., 2011). A colaboração entre as PME pode ser uma estratégia vantajosa para ultrapassar as limitações financeiras e de recursos e reforçar a sua posição no mercado (Franco, 2003). As pequenas empresas são particularmente motivadas por vantagens competitivas, que incluem a entrada em novos mercados; melhorar o nível de inovação; partilha de recursos e competências; alcançar economias de escala; e aumento da capacidade de produção (Franco, 2003).

As empresas dentro de um cluster que enfrentam desafios e limitações, como as da comunidade empresarial da Gronelândia, podem conseguir mais através do ato de colaboração do que com os seus próprios esforços dentro de um cluster. Assim, existe uma ligação entre o desenvolvimento do cluster e a colaboração, onde os clusters evoluem e a transição para comunidades colaborativas pela razão que permitirá às empresas membros realizar mais desenvolvimento de negócios. A transição de um cluster para uma comunidade colaborativa é importante, uma vez que representa uma abordagem para o desenvolvimento contínuo e a evolução de clusters, tanto de uma perspectiva teórica como prática. Isto é particularmente interessante para pequenos aglomerados como a ACRM. O desenvolvimento colaborativo da comunidade nem sempre é o resultado de um processo evolutivo, mas também pode ser um processo planeado e propositado (Bøllingtoft et al., 2012). Portanto, a transição de um cluster para uma comunidade colaborativa também pode ser um esforço deliberado. Por esta razão, a gestão do processo de transição enfatiza o papel facilitador de um prestador de serviços partilhados, uma vez que este papel é exigido numa comunidade colaborativa (Bøllingtoft et al., 2012). Além disso, é importante ter em conta as dimensões de proximidade no processo de transição, uma vez que são mecanismos que influenciam as ligações entre empresas (Boschma, 2005).

Neste trabalho, desenvolvo um modelo conceptual para a transição de um cluster económico para uma comunidade colaborativa, que se baseia nos elementos arquitetónicos fundamentais de um design comunitário colaborativo e considera as dimensões de proximidade, tanto como facilitadores e barreiras ao processo de transição e colaboração.

O resto do trabalho é organizado da seguinte forma. Em primeiro lugar, ofendo a proposta teórica de desenvolvimento de clusters e comunidades colaborativas. Então, apresento a abordagem metodológica. Posteriormente, investigo as expectativas e os desafios associados à indústria mineira na Gronelândia, que proporcionam um quadro contextual e uma compreensão aprofundada do assunto para apoiar uma análise mais aprofundada. Segue-se a análise, onde analiso o desenvolvimento de clusters e a ACRM, e a abordagem colaborativa para potenciar o desenvolvimento de negócios locais na Gronelândia. A análise conduz a uma transição da ACRM como um cluster para uma comunidade colaborativa relevante para as indústrias extrativas na Gronelândia. Aqui, desenvolvo e esboço o modelo conceptual para a transição de um cluster económico para uma comunidade colaborativa. Por último, forneço a discussão e uma conclusão.

## **CONCLUSÃO**

A extração de recursos naturais é considerada um caminho para a diversificação económica e a prosperidade para a sociedade gronelândia. No entanto, a comunidade empresarial da Gronelândia é

desafiada por limitações de dimensão, falta de competências necessárias e nenhuma vasta experiência com a indústria mineira.

Este artigo examina a comunidade empresarial da Gronelândia e o Aglomerado Ártico de Matérias-Primas, ACRM, para melhorar o desenvolvimento de negócios locais em projetos mineiros na Gronelândia. No entanto, um conjunto de empresas interligadas não resolve as limitações prevalentes da comunidade empresarial da Gronelândia. A colaboração neste contexto é uma abordagem para aumentar as capacidades e organizar pequenas empresas em regiões remotas. A análise direciona-se para a transição de um cluster económico para uma comunidade colaborativa. Assim, a adaptação ao ambiente de negócios e a gestão da transição da ACRM como cluster para uma comunidade colaborativa permite que as empresas membros concretizem o desenvolvimento de negócios que cada empresa não consegue alcançar com esforços próprios. Para gerir a transição enfatiza o papel facilitador, pois cada comunidade colaborativa requer um prestador de serviços partilhado. Isto alarga o papel da ACRM, desempenhando o papel facilitador e executando as atividades atribuídas a um prestador de serviços partilhados. Além disso, é necessário considerar as cinco dimensões de proximidade (cognitiva, social, geográfica, organizacional e institucional) pois são mecanismos que influenciam as ligações entre os atores. Este trabalho apresenta um modelo conceptual para o processo de transição para uma comunidade colaborativa, que se baseia nos elementos do design colaborativo da comunidade e considera as cinco dimensões de proximidade como facilitadores e barreiras ao processo de transição e colaboração. A transição deverá definir o rumo para que a comunidade empresarial da Gronelândia se envolva em colaborações a fim de ultrapassar as limitações prevalentes e reforçar o desenvolvimento empresarial local derivado da indústria mineira.