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The role of values in shaping sustainable development perspectives and outcomes: A case study of Iceland

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Abstract

Sustainability is conceptualized as a process of balancing growth, equity, and preservation, a definition that is drawn from the 1987 Brundtland Commission report, Our Common Future. While making sustainability a universal objective, this definition conceptualizes sustainability as a one-size fits all technocratic solution, which removes the concept from the context of specific societies that must engage with sustainable development. Social scientific data about the nature of values, where they come from, with whom they resonate, and what goals for conservation and development they establish are equally necessary for the understanding and framing of sustainability. Policies are more effective if they are embedded in the value systems they engage. Drawing on a case study of Iceland this study examines the nature of values in shaping sustainable outcomes. We argue that regulative, normative, cultural, and cognitive institutional structures are in constant interaction with value systems and sustainability conceptions. We find that institutional structures and pro-sustainability values are mutually reinforcing: institutional structures and place amplify value orientation. In turn, values influence the orientation of status-quo institutional structures. Working with interview data and using a grounded theory approach, we build a model for understanding how sustainability is conceptualized in Iceland working from values through agents and industrial bases to generate strategies of development. Icelanders operationalize concepts of sustainability through innovations that improve the efficiency and preservation of natural resources. Our findings add additional layers to conventional pathways of valuation and demonstrate the importance of place and context in situating values of development.

KEYWORDS

environmental policy, fisheries, Iceland, institutions, renewable energy, sustainable development, tourism, values

1 | INTRODUCTION

The Brundtland Commission Report addresses sustainability as a universal objective with attention to technocratic solutions (World Commission on Environment and Development, 1987). The breadth of this conceptualization of sustainability creates practical challenges, including difficulty in the measurement and operationalization (Emas, 2015; Jabareen, 2008). Furthermore, sustainability is not a fixed endpoint, but rather a constantly evolving process of negotiation within and across societies. While there are sustainable development goals that can be captured in clear quantitative terms, such as access to clean water, the processes of achieving these goals highlight the importance of local values and contexts in shaping sustainability (Pirages, 1994). Within each society, there are dynamic tensions between the pillars

of sustainability as well as in the balance between power, equality, and justice in the decision-making process. Moreover, as Holden, Linnerud, Banister, Schwanitz, and Wierling (2017) argue, sustainable development requires constraint on human activities, not just balancing social, environmental, and economic goals.

Drawing on the case of Iceland, this study examines the way the concept of sustainability is syncretically reconstructed through local values and institutions to shape development responses and strategies.[1] An important implication is that polices that operate across larger national and international scales can be made more effective through the resonance at the local level. Values and their differentiation across geographies should be made a consideration in national and international policymaking. Thus, a sustained research agenda focused on the nature of values, where they come from, with whom they resonate, and the goals for conservation and development they establish is necessary to develop a comprehensive understanding of sustainability policy and practice (Smits, Justinussen, & Bertelsen, 2016). In our analysis, we control for competing explanations, such as the structure of the economy, technological factors, and interests, to tease out the role of values in shaping environmental sustainability perspectives and outcomes.

In what follows, we demonstrate the mechanisms (and processes) through which individual and societal values shape environmental sustainability outcomes. We first examine the literature on values and the relationship between values and behavior, specifically addressing the literature that deals with the role of human values in influencing human behavior relevant to (environmental) sustainability outcomes. This literature provides useful typologies of values and basic sets of models for understanding how values drive environmental behavior. Much of this literature is oriented around the generalization of values into a universal framework intended to predict outcomes (Kostina, Kretova, Teleshova, Tsepkova, & Vezirov, 2015; Schwartz, 1987, 1994). We seek to augment this literature by examining the embedded values of specific cultures (Burningham & O'Brien, 1994; Jones, Shaw, Ross, Witt, & Pinner, 2016). Working with interview data and using a grounded theory approach, we build a model for understanding how sustainability is conceptualized in Iceland working from values through agents and industrial bases to generate strategies of development. While Holden et al. (2017) caution against the notion of defining sustainability based on either the short-term political consensus or parochial preferences of stakeholders, the discourse of sustainability (how the issues, challenges, values, and goals of sustainability are constructed in language) nevertheless plays an important role in influencing the principles that are foundational to sustainability outcomes in the region.

Our findings add nuance to universalist theories of valuation and demonstrate the importance of place and context in situating values of development. We present a model of sustainability that illustrates the connection of values to both the social structure of communities and their political economies, as well as the conditions of the environment in which the community resides. Unlike preceding models in the literature, our model of valuation is based on grounded, contextual processes in which values shape sustainability and sustainability effects values.

2 | SUSTAINABLE DEVELOPMENT: FROM BEHAVIORAL CHANGE TO VALUE FRAMEWORKS

Sustainable development as a policy goal is high on the agenda of policymakers to address growing environmental crises and widening global development inequality (Kuhlman & Farrington, 2010; Papa & Gleason, 2012; Reid, 2005; Rogers, Jalal, & Boyd, 2008). In 2015, under the 2030 UN Agenda for Sustainable Development, countries adopted 17 sustainable development goals, which came into force on January 1, 2016, for the purpose of eliminating poverty, reducing inequalities, and tackling climate change. These goals are not legally binding, but governments are expected to work toward developing national frameworks for the achievements of these goals. In light of these global efforts, policymakers and scholars need robust frameworks for measuring and assessing progress of sustainable development efforts. Christen and Schmidt (2011) and Holden, Linnerud, and Banister (2014) propose metaperspectives to address the issue such as measuring sustainable development progress by analyzing the performance of countries on four key development indicators: basic development (human development index); long-term ecological sustainability (global hectares per person); intergenerational equity (share of renewable energy in total primary energy production); and intragenerational equity (Gini coefficients). These metrics align with a model proposed by Chen, Yu, Osei-Kyei, Ping Chuen Chan, and Xu (2019) to assess sustainability in transnational public–private partnership (TPPP) projects using social responsibility factors. Holden et al. (2017) provide a framework for measuring, operationalizing, and implementing sustainable development goals at the local scale.

While these frameworks provide a useful starting point, they generally leave aside sociological factors, including culture and the role of sociocultural values. The role of human values in sustainability and how values influence important processes relevant to environmental sustainability outcomes require further exploration. The relative oversight of culture and sociocultural values is significant. The pursuit of sustainability calls for a change in human behavior (Coulthard, Johnson, & McGregor, 2011; Faith, 2005; Fisher et al., 2012; Graham & Abrahamse, 2017; Howell, 2013; Schulz, Martin-Ortega, & Glenk, 2018; Wei, Wei, & Western, 2017). Individual values are powerful predictors and effective levers of bringing about that behavioral change (Demski, Butler, Parkhill, Spence, & Pidgeon, 2015; Leiserowitz, Kates, & Parris, 2004; Steg, Lindenberg, & Keizer, 2016) and are also important explanatory factors of social psychological behavior (Schwartz & Bardi, 2001). Values guide individual actions, attitudes, and judgments (Rokeach, 1968a, 1968b).

In recent years, there has been a growing interest to understand values as drivers of human behavior (Axsen & Kurani, 2013; Sagiv, Roccas, & Schwartz, 2017). However, the research on the role of human values specific to sustainability outcomes is more recent and remains underdeveloped. A large part of the literature on values is embedded in core studies in psychology (Feather & Peay, 1975; Levy, 1986). Within this literature, values have no universal definition (Allport, 1961; Kluckhohn, 1951; Morris, 1956; Rokeach, 1973; Scott, 1965). However,

there are five common conceptual features in most definitions of values: (a) values are concepts or beliefs; (b) values are desirable behaviors; (c) values transcend specific situations and contexts; (d) values are metrics of evaluating individual or group behaviors; and (e) values can be ranked (Smith & Schwartz, 1997). In addition to these five conceptual characteristics, values also serve three distinct cognitive purposes: (a) biology-based requirements; (b) interpersonal coordination; and (c) group welfare (Schwartz, 1992). These commonalities suggest values are simultaneously individually and socially significant.

The intersubjectivity of values raises challenging questions for measurement. Rokeach (1973) was the first to develop a "universal and trans-institutional" instrument, a survey of 36 values designed in part to enable cross-cultural analysis. Rokeach (1973) further groups these 36 values into 18 terminal values, such as freedom, happiness, and equality, and an equal number of instrumental values, for example, honesty, politeness, and obedience. The degree of value prevalence across cultures can generate insight on how sustainability, functioning at the intersection of multiple values, is understood and integrated into policy within and across societies.

2.1 | Predictive frameworks of sustainability behavior

In the literature on human psychology, it has been long argued that values are an important driver of human behavior. Furthermore, with growing evidence of the impact of human behavior on environmental sustainability, there is a growing interest to understand the relationship between values and human behavior, and to identify those values that are important for sustainability outcomes. Kollmuss and Agyeman (2002) give an excellent review of the several kinds of models used to explain the relational mechanism between environmental knowledge, environmental awareness, individual values, and pro-environmental behavior. This includes single-stage linear models, multistage models, prosocial models, and sociological models. Most of these models emphasize individual subjectivity as the primary vector through which values shape pro-environmental behavior. Accordingly, the role of social institutions remains underdeveloped. The increasing focus on bottom–up approaches in policy formulation and implementation highlights the importance of social institutions—both formal (rules) and informal (social norms, customs, etc.) (North, 1990; Scott, 2008)—as a key link connecting individual values and society-wide sustainability policy outcomes.

We directly confront the role of institutions, considering how both formal and informal institutions influence individual perceptions and behavioral intentions around sustainability. We argue that regulative, normative, cultural, and cognitive institutional structures are in constant interaction with value systems and sustainability conceptions. We find that institutional structures (and place-based markets) and pro-sustainability values are mutually reinforcing: institutional structures and place amplify value orientation, influencing pro-sustainability perception and behavior, and this perception and behavior in turn influences the orientation of status-quo institutional structures (Figure 1). This cyclical process reshapes perspective on how a society might accept the challenges around sustainability and plan for future strategies.

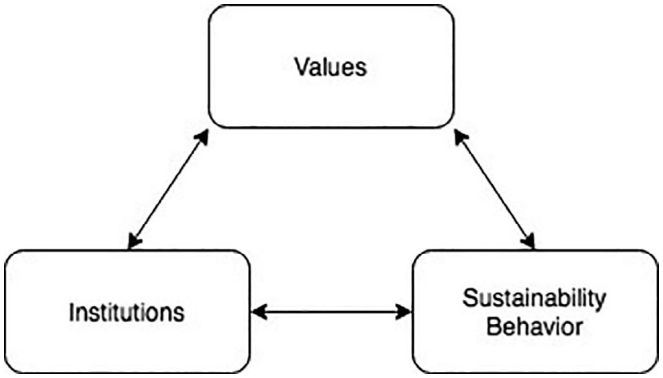

FIGURE 1 Sustainability as an interaction of values, institutions, and behavior

3 | MATERIALS AND METHODS

Iceland is an ideal site for assessing the interrelationship between values, institutions, and sustainability outcomes. The country is ranked highly on sustainability indicators such as the Yale Sustainability Index and on environmentalism indicators in the World Values Survey, suggesting the presence of substantial environmental sustainability-related concerns and interests. Iceland's experience in the 2007–2008 global financial crisis, which generated devastating economic and political effects (Fillmore-Patrick, 2013), highlights the tenuous nature of economic sustainability for small states. This in turn energizes debates about sustainability and the role of institutions in mediating and shaping those debates.

Iceland is also notable for the degree to which strategies based on natural capitalism rooted in Iceland's rich natural legacy and abundance of natural resources have factored into policy (Auty, 2001; Benediktsson & Karlsdóttir, 2011; Eischen, 2001; Shortall & Kharrazi, 2017). Iceland's transition to the sustainable management of natural resources in a relatively short time is an important story. For example, 100% of its energy comes from renewable energy sources, and 90% of the households gets direct heating energy from geothermal energy sources (Hrund Logadóttir, 2015). These strategies provide interesting lessons for neighbor countries, but do not obviate challenges regarding balancing opportunities for growth and conservation of natural resources. For example, tourism in Iceland has grown exponentially in recent years, particularly in the aftermath of the financial crisis with the depreciated currency and policies to stimulate green economy (Dowling, 2011). Many argue that the rate of growth in the industry is unsustainable and is leading to the erosion of natural sites because infrastructure development has not kept pace.

A study of Iceland presents the potential to highlight the context-specific challenges of sustainable development. This study examines how communities balance economic needs with broader community

goals by understanding the nature and intersection of social, economic, and environmental values. Contrary to tendencies to view sustainability as a static universal objective, this work situates sustainability in time and place with an emphasis on how values inform contingent conceptions of sustainable development. We share in the view of scholars such as Holden et al. (2017) that the objectives of sustainability vary between countries and in terms of relevance. Comparable to their findings that island communities value climate and biodiversity, we find that the natural landscape and biodiversity are prominent in Icelandic values of sustainability, particularly concerning cultural preservation and considerations of economic development. Understanding the interactions between values, politics, and economic development holds the potential to substantially improve welfare in Iceland and across the region.

Finally, we acknowledged that Iceland is also a country of considerable depth and cultural nuance. We do not mean to negate or oversimplify these complexities in creating a model, but rather to illustrate a framework through which the operation of values and institutions can be understood in society, which can be generalized to other contexts. For example, the inability to tax fisheries optimally has been a matter of concern in the sustainable management of the fisheries resources in Iceland (Pantzar, 2016). Despite the political and economic interests around this issue (Young et al., 2018), the Icelandic society concerns environmental sustainability problems central to their underlying values. According to the latest World Values Survey data (2017–2020) for Iceland, 71% of the respondents preferred to protect the environment over economic growth, which is among the highest among 77 countries that were included in the survey. Thus, better understanding of values of sustainability in each locality could improve local community engagement with policy and enhance the responsiveness of governance systems. It can also help policymakers come to terms with the range of visions of environmental and economic sustainability in their communities to craft outcomes that maximize social, environmental, and economic welfare.

3.1 | Modeling values through interviews and dialogue

The study uses principles from grounded theory, a methodology designed to build theories from data grounded in people's everyday experiences and actions (Strauss & Corbin, 1997). The focus on lived experience as the basis of theory-building calls for a multistep methodology. First, the key stakeholders (from government agencies, policy consultancies, civic organizations, and the private sector) in the negotiation of sustainability were identified through document review and with guidance from several Icelandic academics, policymakers, and planners, who served as advisors for the project. Planning and policy documents, popular press, and news media were analyzed to identify key concepts surrounding principles of sustainability. Building from these concepts, we designed an interview protocol to examine the institutions (cultures, histories, processes) of sustainability in Iceland. Second, stakeholders in the development of sustainable policies were contacted for interview. We first conducted 26 interviews in Reykjavik (roughly two thirds of the population lives in the metropolitan area), and then 25 interviews around the perimeter of Iceland (the bulk of the rest of the population) to generate insights on the structure of sustainable policymaking, the agents that engage in policymaking, and the scope of sustainable policies within the country. Interview participants were asked questions specific to the structure of their organizations, core policy interests, values and motivations, the nature of their involvement in policymaking, and the history of the evolution of the concept of sustainable development. Interviews also focused on the participant's knowledge of the sustainable policy impacts, influence on economic development in a region, expected outcomes and future outlook to assess the degree to which various actors' cognate the spatial and temporal dimensions of sustainability.

The approach of using grounded theory to analyze interview texts is well established in qualitative research (Charmaz & Belgrave, 2012). To this end, interviews were coded using two approaches. Following Eisenhardt and Graebner (2007), transcripts were analyzed to generate insights on how sustainable development is perceived in Iceland. Working from first-order codes to analytical categories, we identified 23 second-order core concepts. These second-order concepts were then distilled into a set of six analytical categories by analyzing the relationships and network of these 23 core concepts. The analytical categories and the core concepts under each analytical category were finally consolidated to a processual model of how values influence sustainability perspectives and outcomes and how these perspectives and outcomes influence individual and societal values (Figure 2).

Second, following Gioia (1998), we treated interlocutors as "knowledgeable agents," people who know what they are trying to do and can explain their thoughts, intentions, and actions. This grounded the study in accounts of the informants' experience (Gioia, Corley, & Hamilton, 2013). Coded interviews were used to generate insights on the relationship between values, agents, the scope of actions possible and the landscape of decisions. From the knowledge provided by key informants, we constructed accounts explaining how agents use values to negotiate the opportunities and challenges of sustainability and to devise new strategies of development. Anonymized quotations are used to support key observations.

3.2 | Modeling environment and behavior as situated in institutional context

In this section, we lay out the values—sustainability analytical model consisting of six prominent analytical categories (*values*, *agents*, *productive base*, *challenges*, *opportunities*, and *strategies*). Sections 4.1 through 4.6 below address each of these categories in turn. In each section, we provide a table drawing on the interview data to demonstrate the structure of sustainability values. To map the values trajectory across the categories, the *first column* (bold font) of each table provides data from the same interlocutor. Other columns present representative data across different interlocutors to demonstrate how the concepts are manifest across different perspectives. Under each

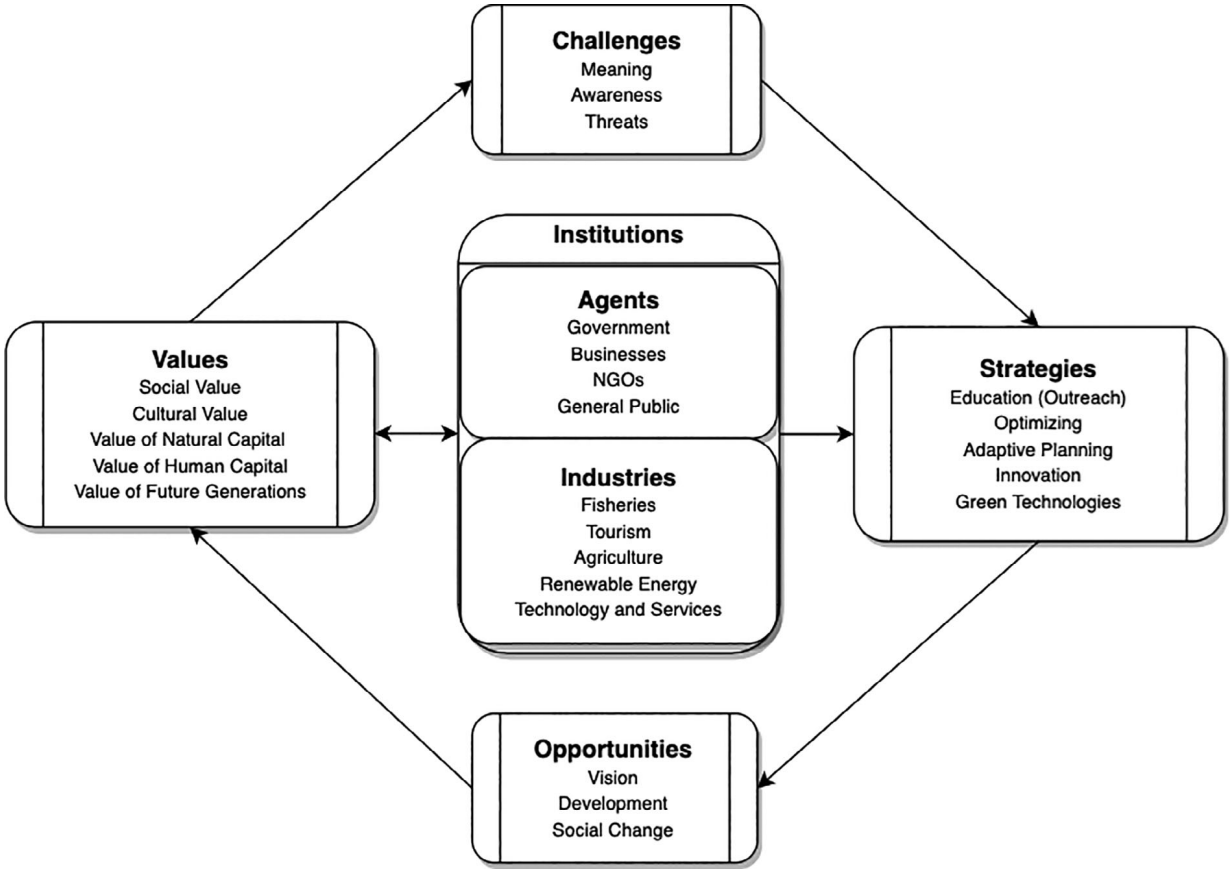

FIGURE 2 Analytical model of sustainability values (grounded from coded interview data)

analytical category, we identify the 23 most prominent concepts (see Figure 2, under each analytical category). These manifestations are based on exploration of various relationships among 455 open codes from 51 interview documents, evidenced by 712 quotations across the 51 interviews that were conducted. Within each of the six analytical concepts, we see clear connections among locally embedded value systems and sustainability perceptions not adequately explained by existing models. As Holden et al. (2017) suggest, values set some parameters around the function of societies. The model is establishing direct connections between values and institutions (social, physical/formal, and informal) with regard to how individuals in a society conceptualize, plan, and initiate sustainable development.

4 | RESULTS AND DISCUSSION

A discussion of sustainability begins with the emphasis on place: how the concept of sustainability is interpreted and transformed through existing value systems. These are shaped by and related to the productive bases, a combination of resources respondents have access to and the ways in which their societies utilize these resources. Their perspectives are also shaped by their agency, and the particular socio-demographic identity each respondent holds. In the model in Figure 2, we represent "agents" with nature of employment (or dimensions of institutions in governance), but the nature of the agent could vary across socio-demographic characteristics and organizations. The way individuals are situated both socially and environmentally helps identify the opportunities and challenges for sustainability that respondents perceive and the way that their values shape their development strategies and objectives. Our analytical model evidences the theoretical conception we started with: hypothesizing that institutional factors along with place-specific conditions mutually reinforce value systems. Our model is also cyclical, confronting challenges (both structural and cognitive) and forming strategies to create opportunities to enhance value systems. These values systems become a foundation for altering existing institutional forms, or creating new institutional arrangements. The model illustrated in Figure 2 combines the insights of models described by Kollmuss and Agyeman (2002) while making explicit the relationship between values, institutions, and the built environment in order to understand how individuals conceptualize sustainability, as derived from our grounded theory analysis. In the next section, we walk through the segments of the model and provide examples from the dialogue and experiences of several of our interlocutors from different regions and sectors of Iceland.

4.1 | Values

Through the coding of the interview data, we identify the five most prominent conceptualizations of underlying values (social value,

cultural value, value of natural capital, value of human capital, and value of future generations). In this section, we illustrate the model with quotations from a respondent conceptualizing the sustainable development in Iceland through the interview discourse.

The concept of social value can be unpacked under two strands: inherent value and creation of capital. First, it is understood as the representation of innate interconnectedness, a sense of community. Participants emphasize how individuals and communities are interconnected and sustainability issues can affect people from various channels, therefore ought to be addressed collectively. Second, the concept of social value encompasses the notion of social bonding (such as forming a social group for organic green farming), or the value of collective well-being, as well as social capital (networks). Social value can be understood as an asset to generate a use-value—by forming groups as a mechanism to seek collective well-being. In our analytical model, social value is one of the key concepts that help shape some of the strategies (i.e., education and outreach) identified from the data. Cultural value is conceptualized as a set of norms, beliefs, and practices that upholds a symbolic value of the built sociocultural environment. Some participants perceive cultural value as synonymous to the value of preservation (environment is identified as a crucial asset of the Icelandic community). Similarly, respondents view natural capital as an element of identity, pride, and heart of the country beyond resources for commodification. Two issues stand out under the value of human capital. The first is more closely associated with human security, such as risks on human lives more immediately from natural disasters and more distantly from food insecurity. Omarsdottir (2018) has found that the public discourse in Iceland focuses more on threats to societal and environmental security rather than on military security. The second issue is associated with the value of human capital directly, emphasizing the role of humans in transitioning more fully toward sustainable practices, despite continued aging population concerns. For this reason, participants underscore the value of future generations in face of uncertain yet inevitable future challenges (Table 1).

While older generations may have valued a steady commercial enterprise in a remote location, younger generations have different priorities and aspirations. These different values create different development outlooks and trajectories, which are responsive to environmental and social conditions, and which in turn shape the strategies communities develop (Figure 2). In the spirit of innovation, respondents also acknowledge the significant relationship between social and natural capital and the importance of preventing waste of their natural resources. This mentality pervades industry sectors.

4.2 | Agents

There are numerous ways to define agents. Building from the interview data, we represent four broad-based types of agents within Iceland's political economy that shape sustainable development—government, businesses, nongovernmental organizations (NGOs), and the general public.[2] The government is perceived as the final decision-making body and often described as a regulator. Our analysis reveals

TABLE 1 Examples of value of future generations

Value of future generations			
Fisheries	**Tourism**	**Geothermal**	**Waste and innovation**
Our goal is to create a positive regional development in some way or another…we have different perspectives from different generations. We have younger people focused on the variety of the opportunities, and we have the older people saying, "We need a stable company. We need a stable employer. That's going to save us."—Director, University Center, May 9, 2016	There is an obvious tension between tourism and other fields such as infrastructure. Everybody wants electricity, but nobody wants to see how it is moved from one place to another. So, there will be struggles between these different sectors. If you talk to the young people, they all look toward technology where they want to work. That is something that worries me with tourism where we do not have so many well-paid, well-educated jobs.—Director, Environmental Protection Agency, March 16, 2016	Geothermal has been used through the centuries, but in the first decades of the 20th century systematic use for house heating evolved. It was first mainly in individual houses that were connected to a nearby hot spring. Here, in Reykjavik, there was drilling for hot water with washing pools in the town. Now, Iceland is looked upon as one of the main leaders in geothermal development. The value is both the scientific methodology in getting to know the geothermal area, and also applying the different existing technologies to the utilization of the resource.—Director of Public Affairs, Water Utility, December 3, 2014	I brought this with me into the company. Whereas we are harnessing natural resources, ground water, and geothermal, I said, from the very beginning, "There is no waste." and the Resource Park, its mission is a society without waste. So that is the spirit of this.—Deputy CEO, Energy Industry, April 22, 2016 One of the things that is really unique about Icelandic fishing, is that you use 80 or 90% of the fish and most people throw away 40% of the fish or 50% of the fish. So, most companies use the fillets, that is, what everybody wants. But Icelanders are learning to use every part of the fish, so the intestines, the skin, all sorts of products are being made.—Chief Technology Officer, Industry, December 10, 2014