Chapter 12
Business Models that Valorise ESS and Advance a More Socially and Ecologically Grounded Economy

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Abstract The services ecosystems provide can be seen as assets in developing individual businesses and local economies. The business models examined in this chapter represent strategies that valorise a high-quality cultural and natural environments. We argue that they make lifestyles and economic systems more environmentally and socially sustainable. The strategies link orthodox business goals with the societal goal of a more socially and ecologically grounded economy. Our analysis focuses on how ecosystem services are valorised and different kinds of value are created. We are interested in the goods and services provided, customers and revenue streams, the related strategies, and the creation of cross-sectoral synergies. The basis of our analysis is a set of business model archetypes compiled in the EU-funded ROBUST project. The business models range from organic farming and regional quality labels to ecotourism and the valorisation of food heritage and green lifestyles. They comprise individual and shared businesses and place-based approaches like renewable energy sourcing partnerships. For each model, we discuss how they support the creation of win-win situations and valorisation of ecosystem services (ESS), identify limiting factors, and explore the potential role of policy.

Keywords Ecosystem services · Business models · Valorisation strategies · Place-based · Rural-urban relations

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12.1 Introduction

12.1.1 Background

The dominant patterns observed in economic and business development can be characterised by decoupling economic activity from local socio-economic, cultural and natural systems (Jackson, 2017; MA, 2005; OECD, 2012). Closely related has been a spatial concentration of specific industries and market concentration, scale enlargement, specialisation, and increased capital intensity at the level of individual businesses (Costanza et al., 2017; Knickel et al., 2018). The related changes in economic and business structures coincide with:

- an increasing predominance of business models that are focussed on maximising profits and shareholder value, as opposed to business models that are more closely aligned with the needs—and opportunities—of an environmentally and socially desirable development;
- lack of acknowledgement of the role of (ESS) in conventional economic and business development, which is in stark contrast to increased concerns about the quality of life and well-being, especially among younger generations, as well as increasingly pressing global challenges (the latter articulated above all in the UN Sustainable Development Goals, SDGs) (UN, 2015).

Against this background, we ask in this chapter whether there are more business models, strategies, and new forms of organisation that are more closely aligned with the common goal of a sustainable and equitable economy, which is socially and ecologically grounded. In Europe, a strategic backdrop to equitable economic change is embedded in the notion of 'just transition' where 'no-one is left behind. The European Commission has established financial instruments within the Just Transition Mechanism[1] (2019–2027) including a Just Transition Fund, a loan scheme and an investment guarantee fund to create leverage for realignments in areas where the regional economy is most carbon-intensive.

More broadly, the reference to more environmentally and socially sustainable business models points to the relevance of the analysis for more recent EU initiatives and policies such as the European Green Deal, the EU climate and biodiversity policy, the Farm-to-Fork strategy (F2F), the circular economy and the EU's Territorial Agenda. The European Green Deal aims to make Europe climate neutral by 2050, contribute to achieving the 2030 EU Biodiversity Strategy goals, boost the economy through green technology, ensure sustainable and safe food systems, create sustainable industry and transport, and cut pollution. The expectation driving these new, ambitious policy orientations is that climate and environmental

[1] https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

challenges can be turned into opportunities to make the transition just and inclusive for all (European Commission, 2021, 2022).

Additional EU initiatives have recognised the importance of business approaches that blend commercial and social or environmental objectives, namely social enterprises. For example, the mapping of social enterprises in Europe following the Social Business Initiative (2011), and the Employment and Social Innovation Programme (2018) has highlighted both the importance of such alternative business models in Europe and their complex 'ecosystems' of commercial, regulatory and intelligence networks (European Commission, 2020).

The questions posed in this chapter align with Bidmon and Knab (2018), who argue that realising the transition towards sustainable development—meaning a sustainable society and supportive economy—requires new business models. These models provide a framework within which ESS are captured in language and can be associated with financial or economic outcomes and values. We are using the term 'valorisation' as first used in financial English as an intervention to fix the value of a commodity. In this context, we see businesses as interventions by socio-cultural actors to create or affix an economic value to ESS's flows and processes. ESSs can be commodified, but we are seeking models that do not break the complexity of ESS and resist the ecological and social simplifications inherent in the processes of commodification.

Related to this, we are interested in business models that valorise high cultural and natural values, including enhancing the supply of ESS, which in this way, also contributes to achieving the SDGs in this way, these models are regenerative, they enhance the supply of ESS, we mean the attentive management of ecosystems to protect them from degradation and introduce incentives for that attention to be sustained, or even extended. In this way these models are regenerative. Our analysis follows the common definition that ESS comprise provisioning, regulating, cultural and support services and the related social, cultural and environmental benefits introduced by the Millennium Ecosystem Assessment, and now used widely. ESS are provided by the ecological functions of natural ecosystems (Burkhard et al., 2010, 2012; MA, 2005).

Our particular interest lies in the ESS that are not normally rewarded by conventional market demand and supply mechanisms. In the following, we will speak of sustainable business models when they contribute to an *increased* supply of ESS (Bocken et al., 2014; Stubbs & Cocklin, 2008; Toxopeus & Polzin, 2017). We hypothesise that sustainable business models and the related strategies make lifestyles and economic systems more environmentally and socially sustainable, enhance ESS provision and contribute to social cohesion and job satisfaction.

In this chapter, we ask what key features and mechanisms of business models could best safeguard ESS, what might constrain sustainable business models, and how limiting factors can be overcome.

12.1.2 Brief Review of Related Research

In the following, we will briefly review key literature on sustainable business models, asking what constrains them, and why it seems so challenging to create, sustain and upscale the related innovations.

Business models can be defined as *"a focal firm's core logic for creating, delivering and capturing value within a stakeholder network"* (Jensen, 2013). Alternatively, they can also be seen as *"stories that explain how enterprises work"* (Magretta, 2002). A business model describes how a business relates to factor and product markets (Zott & Amit, 2008). Value creation is the core of a business model and a shared task of all actors involved (Casadesus-Masanell & Ricart, 2010). In essence, a business model describes how value creation between parties or partners — based on certain principles — is organised, at a particular moment, in a specific context, and given available resources (Jonker & Faber, 2021). Orthodox business models tend to be driven by financial value creation and are well understood (Casadesus-Masanell & Ricart, 2010). Dyllick and Hockerts (2002), Fjeldstad et al. (2012), and Foss and Saebi (2015) focus on the timelier question: the emergence of sustainable business models and new organisational forms and innovation in business models. The analysis and discussion in this chapter focuses on illustrating the basic ideas contained in these more conceptual articles.

Burkhard et al. (2010, 2012), Costanza et al. (2017), Houdet et al. (2012), and others explored ways to sustain natural capital and ecosystem services (ESS). Despite a body of work on interdependencies between new, more sustainable businesses strategies and ESS by now, a potentially significant role of sustainable business models in the valorisation of ESS—i.e., safeguarding and enhancing the supply of ESS—has still not received sufficient attention of scholars. This is notable as in the same analysis; it is recognised that ESS, and the natural capital assets that produce them, are seen as representing a significant contribution to sustainable human well-being, that many ESS cannot (or should not) be privately owned and that conventional markets largely elide, undervalue or ignore them. Bridging ecology, economy and social sciences, the same authors conclude that many ESS are such that providing benefits to one person does not reduce the number of benefits available for others; that is, they are 'non-rival'. Moreover, when defined as 'non-excludable', the latter means they can be treated as either 'public goods' or 'common goods'. Clean water supply, water quality, biological control, some cultural services, biodiversity and climate regulation are examples of non-rival and non-excludable services, which could, in turn, be considered public goods (Felipe-Lucia et al., 2015).

While the studies put forward, for example, by Burkhard et al. (2010, 2012) and Houdet et al. (2012), provide an important foundation for further analyses, they tend to focus on mapping and GIS, quantitative assessments, supply-demand accounting, and modelling. The related analyses, and, where it is the case, ambitions to influence policy development, are soon confronted with the complexity of the ESS concept, and the context-specificity of supply and demand, both with important implications such as:

- The number of ecosystem goods and services to be covered is potentially very large,[2] and many values attached to the natural or cultivated environment rely on an area's unique character.
- Interpreting ecological information collected from one spatial-temporal scale does not necessarily mean it can be applied to another.
- The supply and demand data are limited, and stakeholder values, estimates and opinions often drive the process (Gorriz-Misfud et al., 2016).
- Suitable market-based mechanisms are absent.
- Different communities and cultures will value ESS differently, subject to their beliefs, opportunities and relative agency.

Daily et al. (2000) argue that *"the process of economic valuation could greatly improve stewardship"*. Others like de Groot et al. (2010) recognise the challenges in integrating the concept of ESS and values in landscape planning, management and decision-making. In particular, scaling and bundling ESS and economic valuation (translating scientific knowledge to economics) seems only meaningful to a limited extent.

TEEB (2008) and, more recently, Naturkapital Deutschland (2016) and IPBES (2022) go beyond monetary valuation in emphasising the consideration of ESS in private sector decisions. Business cases for biodiversity and facts for entrepreneurs are provided, with particular attention paid to entrepreneurial development opportunities. Closely related analyses are put forward by Knickel (2001), Knickel and Peter (2005), Perrin (2018) and Cetara et al. (2022), who explore green market opportunities, the valuation of (or adding value to) ecosystem goods and services, and business policies for urban nature-based solutions. Paradigmatically distinct from the ESS approach, Nature Based Solutions (NBS) look to leverage the protection of nature in ways that simultaneously benefit people and nature. NBS is defined variously by different actors. The IUCN places a well-managed nature at the core of NBS schemes, whilst the EU has adopted a definition that relies on nature inspiring and supporting solutions. The literature on NBS contains a more advanced discussion of sustainable business models with different types of value propositions, delivery and capture approaches (Bocken et al., 2014; Boons & Lüdeke-Freund, 2013; Schaltegger et al., 2016; Stubbs & Cocklin, 2008). Particularly useful for the analysis presented in this chapter is the work of Perrin (2018). The author identified several key issues limiting the potential to explore and make use of commercial opportunities connected with ESS:

- Businesses tend to focus on immediate profits; a lack of concrete ways to capture sufficient tangible return on investment over a short timeframe and scarce evidence on long-term costs and benefits, resulting in limited interest in the private sector. Public-private cooperation tends to be constrained by a lack of understanding across various stakeholder groups about the value of nature-based solutions (NBS) and differing stakeholders' expectations.

[2] See the Common International Classification of Ecosystem Services, CICES, developed from the work on environmental accounting undertaken by the European Environment Agency, EEA.

- Values are volatile, i.e., they vary in time, context and between social groups, heightening uncertainty and risk. The common approach of private investors to discount (or depreciate) assets is seen as particularly problematic by some stakeholders.

The sustainable business models we will showcase later in this chapter contain mechanisms for overcoming (or circumventing) these bottlenecks and indicate how value for businesses and local communities can be created based on ESS's benefits.

The remainder of the chapter is divided into four sections. We briefly present the approach used and the five sustainable business models analysed. We then present the results of a comparative analysis focusing on how ESS are valorised. The chapter concludes with a brief synthesis of key findings and implications for future research, focusing on transformation-oriented approaches.

12.2 Approach Used and Data Basis

The reviewed literature indicates that business models can be defined in various ways. In the following analysis, we explore business models in socio-economic terms and aim to examine how they can 'valorise' ESS.

The basis for our analysis is a set of business model archetypes compiled jointly by practitioners and researchers in the EU-funded Horizon 2020 project ROBUST on enhancing rural–urban relations (ROBUST, 2022). Five of the 20 business models developed in ROBUST were selected for this chapter to demonstrate that sustainable business models can deliver diverse ESS, including food production, carbon storage, cleaned air, biodiversity, pollination, recreation, and education. This diversity is also meant to illustrate multiple opportunities for the valorisation of ESS at the business level. Profiling business models, their mechanisms and impacts followed a common protocol. The template used to characterise each business model is presented in Annex 1.

This chapter studies the five selected business models from various disciplinary angles to determine common properties. We are particularly interested in the logics of how firms operate and how value is created and captured, or as framed by Baden-Fuller and Morgan (2010), Brynjolfsson and Milgrom (2012), and Ritter and Lettl (2017)—the *value-creating logic*. As part of the approach, key actors, products, services, and revenue streams are identified in each business model. In examining the potential benefits of each selected sustainable business model, we also intend to investigate the perspective of entrepreneurs, local communities and policymakers.

More generally, we explore to what extent and how sustainable business models can achieve economic and social goals—such as unlocking local economic development and stimulating a positive societal impact—and whether and to what extent they can contribute to advancing a more socially and ecologically grounded economy (Fig. 12.1).

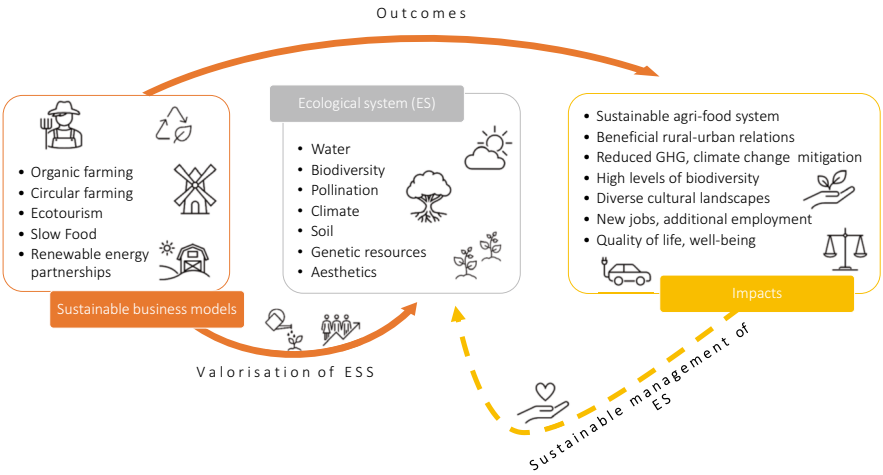

Fig. 12.1 Overview of the conceptual approach used

12.3 Five Business Model Archetypes

In the following, we will briefly present five business model archetypes covering a spectrum from single enterprises to business chains, shared businesses, and territorial partnerships.

The five business models are:

1. Organic farming
2. Circular farming
3. Ecotourism
4. Slow Food
5. Renewable energy sourcing partnerships

12.3.1 A Summary Overview of Business Models' Basic Features

According to multiple international classifications, ESS include providing materials (e.g., food and fibre), improving water quality, providing wildlife habitat, crop pollination, soil formation, temperature regulation, mitigating storms and floods, buffering pollutants, and supporting a wide array of cultural benefits, including recreational opportunities and aesthetic values and more (Fermilab, 2022; TEEB, 2008). In this chapter, we can only discuss a limited range of these services.

Table 12.1 provides a first overview of the basic features of the five business models with the specific ESS they can potentially valorise. As part of the analysis in this book chapter, the ESS were selected from the established classification of ESS (see Table 12.1) and attributed to each business model based on expert judgement.

Table 12.1 A summary overview of the basic features of each business model with a selection of the ESS it can potentially valorise

Business model, plus a brief description	Key actors	Organisational characteristics	ESS[a]
Organic farming *Aims at sustaining the health of soils, ecosystems and people*	Farmers, consumers, processors, retailers, policymakers	A systemic approach emphasises synergies in natural and agri-food systems	Food, storing carbon, education, recreation, aesthetic, stewardship, habitat, biodiversity, pollination, soil formation
Circular farming *Aims at minimising the use of raw materials by closing loops as locally as possible*	Farmers, processors, industry, policymakers	A systems approach to the cycling of raw materials, cross-sectoral cooperation	Food, wood, raw materials, biofuels, photosynthesis, clean air, reduced GHG, education, stewardship
Ecotourism *Aims at responsible travel to natural areas, maintaining environmental quality and well-being of local people*	Gastronomy, tourists, tourist agencies, NGOs, farmers, tourism operators, rafting companies and hospitality-related businesses	Place-based strategies, bundling of services	Recreation, aesthetics, scenic beauty, stewardship, habitat, biodiversity and wildlife, education, clean air, purified water, pollination
Slow Food *Aims at good quality, flavoursome and healthy food; environmentally-friendly production; fair prices for consumers and fair conditions and pay for producers*	Farmers, consumers, processors, consumer organisations, local governments and NGOs	Differentiation and quality, absence of middlemen	Food, education, recreation, aesthetics, stewardship, habitat, biodiversity, pollination
Renewable energy partnerships *Aims at new forms of territorial collaboration connecting rural and urban co-investors in production and consumption*	Farmers, processors, local public administrations, private households	Local and municipal level cooperation of renewable energy providers and users, wider sharing of responsibility, absence of middlemen	Biofuels, wood, photosynthesis, store carbon, reduced GHG

[a]Based on TEEB Europe (in: https://ecology.fnal.gov/ecosystem-services/ accessed: 27.08.2022)

12.3.2 The Five Business Models

Each business model will in the following be briefly described focussing on:

(a) what is the business model with its key actors, organisational characteristics and the concerned ESS;
(b) the way ESS are valorised with mechanisms and resource use features;
(c) strengths and weaknesses, and, where relevant, other related business models with their specific features and corresponding strengths and weaknesses.

Organic Farming

Organic farming is a sustainable business model for single enterprises, representing an archetype of ESS's valorisation. Its farming strategy focuses on sustaining the health of soils, ecosystems and people. To do so, it relies on ecological processes, biodiversity and nutrient cycles adapted to local conditions. The same ideas are expressed in the four principles that provide the foundation for organic farming (IFOAM, 2022). According to these principles, agriculture should *"sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible; be based on living ecological systems and cycles, work with them, emulate them and help sustain them; build on relationships that ensure fairness regarding the common environment and life opportunities; be managed in a precautionary and responsible manner to protect the health and wellbeing of current and future generations and the environment"*.

The main ESS that organic farming valorises are food, carbon storage, education, recreation, aesthetic landscape values, stewardship, habitat, biodiversity, pollination and soil formation. Organic farming builds on natural systems and the ESS they provide. Its basic ideas are to 'work with nature' and to harness synergies instead of trying to achieve systems control—which, as Kasperczyk and Knickel (2006) and Knickel (2014) point out, is a significant strength at a time of rapidly decreasing resource availability.

Valorisation is based on a steadily increasing number of food consumers in many European regions willing to pay a higher price for organic food products (FIBL, 2022). The ESS that organic farming uses enhances, and valorises—e.g. aesthetic landscape values, stewardship, biodiversity and soil formation—are associated with the food product. Clearly defined rules of production, control systems and certification, labelling of organic products, and monitoring of trade in organic products ensure that natural resources are managed sustainably and build consumer confidence.

Multifunctional rural enterprises and rural care represent business models with some commonalities with organic farming. Many organic farms successfully integrate other activities, such as social care (Moriggi et al., 2020). Multifunctional rural enterprises build on farming diversification, boosting the supply of ESS and increasing environmental quality (Oostindie, 2020a). Rural care enterprises integrate people with physical, mental or emotional disabilities. Common activities in

such settings are agriculture-related and sometimes in market gardens, artisanal processing or in nature conservation (or combinations of those) (Vulto, 2020).

A limitation of organic farming as a business model is that transitioning from conventional to organic farming constitutes a challenge for farmers, specifically during the 'conversion' period. Another critical factor is the entry of larger retail chains into the organic market and competition with cheaper imported organic food products. It helps to reach more consumers but puts the manifold local benefits of organic farming in question. Public support makes it easier for farmers to switch to and maintain organic farming systems and represents payment for public goods in economic policy terms. Similar business models, less directly and less comprehensively linked with ESS provisioning, are multifunctional rural enterprises, rural care, and circular farming.

Circular Farming

Circular farming aims to minimise inputs of concentrate feed and chemical fertiliser as well as outputs of harmful substances and waste. Residual products from one chain are feedstocks for another. The focus of circular agriculture is minimising the use of raw materials by closing loops as locally as possible—within the farm, at the local level, within a larger region, or across national borders. The related ESS are raw materials, biofuels and photosynthesis, food, wood, clean air, reduced GHG, education, and, related to the use of non-renewable resources, stewardship.

Moving towards circular farming implies searching for practices and technology that minimise the input of finite resources (such as phosphate and water), encourage the use of regenerative ones, reduce or even prevent emissions (e.g. GHG, nitrogen, phosphorus), and stimulate the reuse and recycling of resources in a way that adds the highest possible value for businesses. High-tech circular farming aspires to improve natural resource use through reuse, remanufacturing and recycling. A common business model in the Netherlands combines urban organic waste for renewable energy production with residual heat for urban heating and glasshouse horticulture (Oostindie, 2020b).

Circular practices can help to make production systems less dependent on external inputs, and they can, in this way, drive the resilience of local economies. The biggest obstacles circular practices are confronted with are related to the low cost of some non-renewable resources that need to reflect real scarcities and externalities (like the costs of water pollution). Valuing food and acknowledging existing externalities also encourages consumers to buy sustainable food and energy.

Circular farming as a business model can be expressed in traditional land-based farming practices and more high-tech inspired practices such as urban rest-flow valorisation or bioenergy production (Oostindie, 2020b). Sometimes, new applications are based on traditional knowledge or farming wisdom from traditional farming systems. Similar business models are multifunctional rural enterprises, closed-loop agriculture and organic farming.

Ecotourism

Ecotourism is a form of tourism in areas of high natural value, typically including farmed landscapes and pristine and relatively undisturbed natural areas (TIES,

2015). Rural tourism has existed for a long time in regions with favourable conditions. However, the explicit focus on high nature value and higher ESS provisioning as an asset for individual businesses and the local economy is a recent phenomenon. Ecotourism tends to be low-impact and often small-scale. Environmentally sustainable practices, responsible travel to natural areas, maintaining environmental quality, and the well-being of local people play an important role in ecotourism businesses. The related ESS includes recreation, aesthetic landscapes and scenic beauty, stewardship, habitat, biodiversity and wildlife, and, less directly, education, clean air, water purification and pollination. Ecotourism is about valorising rural lifestyles and natural and cultural heritage. A tool commonly used in conjunction with ecotourism is regional quality labels.

A limiting factor is that a minimum amount of regional cooperation and coordination of individual business developments is essential. Valorising regional quality, traditional local food culture, rural lifestyles, and food heritage work best if accompanied by local and regional level actions. The experiences in biosphere reserves and natural parks show how much coordinated efforts can increase potential benefits. The new activities relate to tourism activities like participatory educational visits, catering, healthcare services, and recreational activities. The business model tends to be profit-driven but with a smart use of local resources and the recognisable importance of social gains.

Ecotourism stands for business models that aim at valorising heritage and rural lifestyles. Closely related place-based business models are commoning, as various expressions of community-supported agriculture, regional land banks, green funds and crowdfunding, and Slow Food. Commoning, for example, represents a societal attempt to revitalise the principal features of the commons in commercial activity. It builds upon the commons' definition, collectively owned property with broadly shared rules about access, use, responsibility and care for natural resources (Oostindie, 2020c). Commoning aspires to go beyond economic value creation by incorporating other sustainable resource use concerns and checks and balances. The innovativeness of commoning resides particularly in novel ways to combine commercial activity with other values.

Slow Food

Slow Food is a global, grassroots movement and organisation founded in 1989 to prevent the disappearance of local food cultures and traditions. The movement and related business model emphasise landscape attributes expressed in regional, often artisanal quality food products and their appreciation by food consumers. Three interconnected principles define the basic concept of 'good' food: good quality, flavoursome and healthy food; clean production that does not harm the environment; and fair prices for consumers and fair conditions and pay for producers. The ESS that the Slow Food business model and movement relate to are food, education, recreation, aesthetic values and stewardship, and, less directly, habitat, biodiversity and pollination.

The establishment of local food hubs, short food chains and box schemes are comparable. Like Slow Food, they are about providing the population with a

sustainable supply of products from the region. Typically, several regional businesses which produce, process and distribute food, cooperate within an area using commonly defined terms, common administrative structures and joint marketing (Kneafsey et al., 2013; Wiskerke & Verhoeven, 2018). Local food hubs curate a set of food products that embody specific goals like the food at risk of being wasted or products from a particular area, representing a local culture, and use those products as the basis of a retail catering offer. Food hubs often possess a profit redistribution mechanism in which a proportion of the revenue is used towards social goals (Reed, 2020a). Food cooperatives are fair retail, distribution and consumption chains. They offer consumers a way of buying products directly from a producer, without the need for middlemen (Fair Trade is a prominent example). This is due to their operation via social networks where orders and deliveries are agreed upon. Box schemes connect food producers with consumers even more directly. Entrepreneurs bring together their own food and additional products from other farms—usually from within a region—to offer customers a broad range of typically fresh fruits and vegetables. The produce is often sold as an ongoing weekly or fortnightly subscription, and the food boxes are delivered directly to a consumer or a local collection point. More advanced box schemes use ICT to make the business more efficient and consumer-friendly (see Crowdfarming, 2022; Querbeet, 2022). Typical is also cooperation with bakeries and butchers (Kneafsey et al., 2013). These initiatives focus on food's social, cultural and recreational value, displacing the focus on food as a commodity and highlighting its relationship to more expansive natural systems.

A limiting factor for Slow Food enterprises is that they require a functioning cross-sectoral infrastructure that enables regional value chains of producers, suppliers, preparers, trade, etc. Where this organisational infrastructure is in place, it is much easier for single enterprises to ensure a sufficient supply of sustainable food of high quality (Bauchinger, 2020).

Renewable Energy Sourcing Partnerships

Renewable energy sourcing offers novel rural business opportunities, including village-based investments in solar and wind energy parks. The related business model involves new forms of territorial partnerships and collaboration, such as energy cooperatives that connect rural and urban co-investors in renewable energy production and consumption (Oostindie, 2020e).

Key actors include farmers and other rural landowners, urban dwellers, especially those with sustainability concerns, energy companies open for investments in smaller-scale and more participatory renewable energy projects, and green investment funds with similar ambitions. It should be noted that in the case of this business model, collective efforts to allow the realisation of renewable energy sourcing plans as single-actor initiatives frequently face different types of problems (e.g. regulatory, financial, and societal resistance). The innovativeness of the approach resides primarily in its contribution to renewable energy sourcing with the aspiration to make the latter more viable, visible and accessible. Renewable energy sourcing combines the provision of ecological, community and economic values. Benefits include contributing to more sustainable energy systems, reduced dependency on

energy imports, and additional rural income opportunities. The related ESS include biofuels, the more efficient use of wood, carbon storage, photosynthesis, reduced GHG emissions, clean air and education.

Other comparable examples are food cooperatives and dynamic purchasing platforms. A common characteristic is that they bring actors from diverse rural sectors together, including agriculture, processing, tourism, etc., together, extending benefits and re-establishing linkages between rural and urban systems (Ovaska, 2020).

Potentially negative impacts include tensions with other types of rural ESS delivery (food, nature, biodiversity, water management, etc.), specifically the effect on rural amenity values (e.g. landscape) and further pressure on scarce land resources, especially in peri-urban areas, as well as local conflicts around the distribution of costs and benefits, such as of solar and wind energy parks.

12.4 Comparative Analysis and Discussion

In this section, we focus on two cross-cutting issues, each with the relevant features of business models:

- Value creation characteristics and mechanisms for valorising ESS
- Limiting factors and policy implications

12.4.1 Summary Overview on Value Creation and the Way ESS Are Valorised

Before the findings are presented in more detail in the following subsections, Table 12.2 provides a brief overview of how the five selected business models create value and how ESS are valorised.

It should be noted that compared to more conventional business models the business models selected for this chapter tend to have distributional implications. Some examples include value accrued locally and for many actors (rather than to one or two large businesses) and the production of multiple co-benefits that provide value to other sectors and groups.

12.4.2 Value Creation Characteristics of 'New' Business Models and their Significance for Sustainability

This section will discuss the analysis of distinctive characteristics of value creation and the main revenue streams of the examined business models.

Table 12.2 Summary overview of the business models, their value creation and revenue streams as well as the way ESS are valorised

Business model	Value creation and revenue streams	Mechanism(s) for valorising ESS
Organic farming	Higher product quality, health, reduced pollution	Agriculture relies on nature's pollination, pest control, and erosion control services. Ecological farm management enhances ESS such as pollination, flood control, carbon storage, biodiversity, and recreation
Circular farming	Reuse, remanufacture, and recycling of resources for the highest economic value and improved natural resource use. Circular farming generates employment opportunities, often locally	Circular farming and green infrastructure (green roofs, green spaces) improve air filtration, CO_2 sequestration and energy saving
Ecotourism	Recreation, fishing, hiking, and birdwatching. Ecotourism is a fast-growing sector generating significant employment and opportunities for local development	Ecotourism businesses benefit from the ecosystem's recreational value. Tourism-related businesses' revenue from accommodation, guiding, adventure or sale of local handicrafts or consumer products can serve as an incentive to protect and conserve biodiversity and the local ecosystem
Slow Food	Supplying the population with sustainable regional high-quality food products. Collaboration of businesses in food production, processing and distribution; joint administrative structures and marketing. A proportion of the revenue is used towards social goals	Territorial or place-based strategies for food, education and stewardship are prioritised. The economy is more than a market for profit-making: the social value of delivered services and the well-being of rural and urban regions and their residents are key considerations. The focus is placed on product market strategies that emphasise differentiation and quality
Renewable energy partnerships	Conserving forests and increasing their area is becoming a priority for governments and is now recognised as a business opportunity in terms of carbon credits—payments for carbon sequestration.	Keeping carbon stored in ecosystems is increasingly a major business opportunity. Voluntary carbon offset schemes are already operating, and plans for official REDD (Reduced Emissions from Deforestation and Forest Degradation) schemes are advancing. REDD-Plus goes beyond and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

The food and producer-consumer-related business models focused on high product quality and freshness, sometimes including delivery as an extra service. A higher value-added and employment creation can be seen on farms and related rural businesses. They, therefore, have a higher local and regional multiplier effect than

long-distance food chains (Hediger & Knickel, 2009; Kneafsey et al., 2013; Wiskerke & Verhoeven, 2018). Product delivery to the door or a local collection point is common. The direct connection and exchange can improve mutual understanding, build trust, and enhance relations between food producers, processors and consumers. Business models that support the consumption of local and regional, as well as organic and seasonal food products, also advance a more sustainable food system (HLPE, 2019; IPES-Food/ETC Group, 2021).

Ecotourism provides a vivid illustration of value creation and value capture strategies. It creates income and employment opportunities for rural areas and businesses by valorising high nature value and higher levels of ESS provisioning. At the same time, it provides a strong incentive for carefully managing natural resources. Visitors to a region, typically urban dwellers, are willing to pay for the ESS that are provided (Ivesa & Kendal, 2013; Knickel, 2001; Zasada, 2011). In this way, a common (or public) good acquires some of the characteristics of a private good. Territorial cooperation and a minimum amount of coordination of individual businesses increase the potential of ecotourism. The products and services offered comprise a high nature value environment and an increased supply of ESS. Both are often combined with the offer of high-quality regional products. Revenue streams include the charges for overnight stays, regional taxes or entrance fees to natural parks, and payment for services like guided tours, horse riding and similar services. The main cost items are related to landscape management (partly compensated through agri-environmental payments), the maintenance of basic infrastructures (like visitor centres, hiking trails etc.), and generally the basic costs of products and services offered.

Territorial cooperatives such as renewable energy partnerships are examples of multiple or mixed value creation, usually comprising economic, ecological, cultural and community values. A wide range of products and services is offered, with particular attention paid to mutual benefits and contributions to sustainable development. Revenue streams tend to comprise both private as well as public money. Integrative rural land use facilitates the strengthening of rural-urban linkages, blending rural-urban values, and broadening rural economic activities. Territorial cooperatives successfully mobilise public support and steer public funding towards rural economic activities.

Prior studies on value creation in orthodox business models point to working within an organisation's or value chain's boundaries (Goldsmith & Samson, 2006; Jonker & Faber, 2021). These studies conclude that the underlying paradigm of a linear economy is not open to discussion, implying that conventional business models remain intact, and the underlying related organisational logic structure remains the same. This effectively means that no added value or additional societal benefit is created.

At the same time, in sustainable business models, we observed that the locus of value creation increasingly extends traditional firm boundaries, as inferred above. This observation corresponds with prior studies (Dyer & Singh, 1998; Gulati et al., 2000; Normann, 2001; Santos & Eisenhardt, 2005). In line with Kolstad (2007), Jackson (2017), Bidmon and Knab (2018), our analysis has shown that the transition

towards a sustainable society and supportive economy requires the generation of new business models and that these models and their wider use play a crucial role in shaping these transitions.

12.4.3 Mechanisms for Valorising ESS

Based on the analysis of distinctive characteristics of value creation and main revenue streams of the examined business models, we will look more closely at how ESS are valorised in our set of business models in this section.

Looking across the sustainable business models presented above, we find that strategies that address environmental, social, cultural and economic potentials in a more integrated fashion can be found in the private sector, civil society initiatives, and public-private arrangements. Entrepreneurs with different sectoral backgrounds or civil society organisations often drive related initiatives and business innovations. Local, regional, and national public policy bodies tend to support and sometimes catalyse.

The business models presented above use different mechanisms, have distinct characteristics and are innovative in different ways. In several models, for example, in food chains, cost-effectiveness is achieved through the absence of middlemen. In others, territorial or place-based strategies for food, culture and ecosystems are at the centre. A common feature is that they view the economy as more than a market or money transaction for profit-making. Instead, the social value of services produced, and the well-being of rural and urban regions and their residents, are key considerations (for a more detailed analysis, see OECD, 2020; Knickel et al., 2021). Cost leadership is a minor competitive strategy in sustainable business models. Much more important are product market strategies that emphasise differentiation and *quality*—the latter in the most encompassing sense, for example, in line with the Slow Food principles referred to above.

The following are some more specific findings on key actors and organisational structure:

- The sustainable business models presented above have equity implications. Compared to more conventional business models, they focus on the shared creation, production, distribution, trade and consumption of goods and services. Working collaboratively is transformative for both the communities where exchanges are happening and for the individuals involved. Internal relations are often primarily trust-based with relatively simple organisational structures. Shared sustainability concerns and business opportunities join rural and urban actors in novel partnerships around renewable energy production, circular economy goals, social care, local quality food and producer-consumer relations. Collective efforts are often found in areas where single-actor initiatives face regulatory or financial constraints, or, for example, in the case of wind energy,

social resistance. Renewable energy sourcing partnerships contribute positively to rural-urban relations by forging novel forms of commitment and collaboration between rural and urban dwellers. The same partnerships often address wider socio-economic sustainability and regional quality of life concerns. Related to local quality food, we found alliances with public institutions like canteens in kindergartens, schools, or hospitals.

- Ecotourism businesses have better chances to be successful in regions where many businesses and regional administrations pursue similar goals. Therefore, agreement on a 'green' vision for a region and regional-level coordination plays a significant role. Joint action is also key in landscape-level management and in the maintenance of, for example, clean lakes and rivers. Regional tourism boards typically play an important role in this coordination. Other relevant actors include cultural institutions such as museums, cultural centres, and marketing or business associations.

Cross-sectoral and multi-actor collaboration was also found important in studies by Vanhaverbeke and Cloodt (2006), Teece (2010), Zott and Amit (2008), Laterraa et al. (2012), Knickel et al. (2018), and Jonker and Faber (2021). References in these studies are made to the architecture of the organisation and the network of parties as the basis for value creation. Value creation tends to be perceived as a collective organisational task occurring in value chains and/or networks. A common conclusion is that describing a business model for only one chain, network, or partnership component is of limited use.

Commoning aligns commercial activity with multiple sharing mechanisms that allow overcoming the limitations of exclusively market-led relations. It contributes to wider societal responsibility sharing for more sustainable natural resource use. 'Territorial' business models, like renewable energy sourcing partnerships and circular farming, tend to avoid sectoral agglomerations and concentration based solely on locational or logistical cost savings. Instead, they emphasise opportunities for collaboration, functional connections, and interdependencies.

Several business models are about (re)connecting food producers more directly with consumers and vice versa. By focusing on high product quality and freshness and including delivery as an extra service, these models provide higher value-added, create employment on farms, rural businesses, and the local economy and allow greater traceability and accountability in the food chain. Kneafsey (2017) and others provide data on the EU's socio-economic effects of short food supply chains that correspond with this finding.

Regional quality labels are an integrative approach linking business and territory. They enable consumers to trust and distinguish quality products while helping producers market them better (Kneafsey et al., 2013; Wiskerke & Verhoeven, 2018). EU quality policy aims to protect the names of specific products from promoting their unique characteristics linked to the geographical origin (Protected designation of origin, PDO) and traditional know-how. Product names can also be granted a 'geographical indication' (Protected geographical indication, PGI) if they have a

specific link to the place they are made. Other EU quality schemes emphasise traditional production processes or products made in difficult natural areas such as mountains or islands (Kneafsey et al., 2013).

The common objective of business models that involve territorial and cross-sectoral collaboration is to enhance rural entrepreneurship, sustain rural development and improve rural quality of life. This is done by exploring novel forms of territory-based collaboration, not only among each other but also with public policy bodies and civil society organisations (Oostindie, 2020d). Novel partnerships, coalitions and alliances are a typical feature. Territory-based cooperation and community building are central mechanisms, often accompanied by a gradual diversification of commercial activities. Entrepreneurs believe that going beyond sectoral thinking and striving for systemic changes are crucial for sustainable development. Especially their support for more integrative, inclusive development initiatives makes territorial cooperatives an interesting partner for public bodies.

A common feature of these different business models is the bundling of services, including ESS and related benefits. This bundling is sometimes expressed in the ambition to create co-benefits or synergies. It finds its expression in ecotourism development, where a region is much more attractive if it combines landscape quality with high nature value, gastronomic offers that are locally sourced from organic farms, cultural offers (Knickel, 2001), and a high quality of public infrastructure such as a network of cycling routes (Knickel & Peter, 2005). Organic farming is another business model based on integrating, bundling and valorising ecosystems' services. Organic farming as a business model is sustainable because it focuses on maintaining and increasing ESS. However, it should be noted that the idea of integrating, bundling and valorising that can be observed in sustainable business models is in stark contrast to more recent trends in ESS-related research and spatial planning that seems to move in the opposite direction of disaggregating, accounting, mapping and valuing in monetary terms.

The reorientation in business models can also be seen in elaborating new business model canvases. The Circular Business Model Canvas focuses on implementing circular economy principles (Ellen MacArthur Foundation, 2016), and the Triple Bottom Line Canvas includes social and ecological values (Joyce & Paquin, 2016). All of these go beyond traditional business model frameworks, which focus almost exclusively on the perspective of one organisation with an emphasis on creating financial value (Jonker & Faber, 2021).

Our findings correspond to those of Zott and Amit (2008), who underlined the importance of *novel* business models coupled with product market strategies that emphasise differentiation. The same authors found that the focus of organisation design has shifted from the administrative structure of a firm to the structural organisation of its exchanges with external stakeholders.

12.4.4 Limiting Factors and Policy Implications

Based on the analysis above, multiple advantages of sustainable business models could be identified. Knowing that the economy is dominated by businesses that follow the conventional model, we must ask why advantageous business models play a smaller role. In the following, we will discuss potential reasons based on the same empirical material and the literature review results. The underlying assumption is that favourable regulatory and policy frameworks can foster sustainable business models. The analysis should therefore be highly relevant for policymakers and administrations who want to drive sustainable investment decisions in the private sector.

Having looked across sustainable business models, we believe the following factors limit multiplication and scale enlargement. Where possible, potential solutions are suggested.

1. Low prices of food products from specialised, large-scale, indirectly subsidised, industrialised production. This is aggravated by the creation of limited awareness and deskilling among consumers. Similarly, competition with low-cost mass tourism and between regions and regional green tourism offers. Social and environmental externalities are not considered, meaning there is no level playing field for sustainable business models and strategies. One implication is that the definition of property rights and fiscal regimes needs to be revisited.
2. Limited access to finance for entrepreneurs who want to launch a business that is less vulnerable to being path-dependent and locked into the dominant food system. The key challenge in this respect is integrating natural assets that have yet to be included in economic calculations and price systems. Our examples show that novel forms of territorial cooperation and new offset mechanisms between public and private goods could play a much more important role in policy. Public-private partnerships (PPP) allow the pooling of resources, skills, knowledge and institutional capacities and a sharing of the financial burden.
3. Cross-sectoral tensions and conflicting interests, lack of coordination and cooperation, and time required for building trust-based relations. There is a need to forge new networks, inclusive partnerships, and governance approaches. IT advancements and a transdisciplinary research approach open new avenues for creating new organisational arrangements among firms, partners, and customers and for enterprise innovation. The EU LEADER, LIFE and Horizon programmes as well as some more recent EU policy frameworks like the Farm-to-Fork strategy and the Territorial Agenda are promising in this respect.
4. Policy preference for well-established practices and models (e.g. large-scale renewables infrastructure vs. smaller-scale decentralised energy systems), which are easily governed and regulated. The need for more policy space for less conventional business models and self-governance approaches is closely related. The problem is aggravated by inappropriate and sometimes conflicting or outdated regulatory frameworks (e.g. phytosanitary regulations regarding the re-use

of food waste). Policy should encourage experimentation with new (research-based) concepts and models, such as ESS.

To develop sound policies, local authorities, civic organisations, and businesses must collaborate—and local governments play a key role in this arena. Local government, businesses and community leaders must be empowered to foster innovation and experimentation appropriate to different communities and ecosystems. Local governments and NGOs have many options to support businesses through certification and labelling, using widespread standards tailored to local conditions. Local policy can also incentivise citizens and businesses to invest in natural capital as experimental and novel business models augment and enhance ESS (Perrin, 2018; TEEB, 2010).

12.5 Conclusions

Our conclusions focus on two main findings: the shift from cost-benefit to co-benefit that has emerged in the examined sustainable business models which we argue is needed; and the important connections between ESS and the development of individual businesses and the local economy.

This chapter presents a broad spectrum of business models that can successfully valorise ESS. Key characteristics of these business models are distinctive resource use characteristics and novel organisational forms, including blended commercial approaches such as social enterprises, which have secured formal policy support for two decades in Europe. Generally, environmental sustainability and the regenerative use of natural resources are emphasised. Sustainable business models tend to be place-based, emphasising multifunctional resource uses, including land.

In sustainable business models, particular attention is paid to the balance between efficiency and resilience, collaboration and competition, diversity and coherence, and small, medium, and large organisations with different needs. Therefore, they tend to also lead to a wider distribution of value added and more beneficial relations between urban and rural areas.

All our examples show that societal goals can be more effectively achieved if individual motivations, entrepreneurial thinking, and innovation are coupled with cooperation and coordinated action. Other characteristics are different parameters of success such as the maintenance of the natural resource base, social cohesion, job satisfaction and security, well-being and work-life balance.

In contrast, overly dominant, orthodox success parameters for businesses, like profitability and return on investment, are hardly compatible with the rapidly increasing demands for environmentally sustainable societal development. Conventional business models focus on products and services that perform better and, most importantly, are cheaper than the competitors. We have also seen a tendency towards oligopolistic markets, where super-profits are generated, as

technologies are used to lock-in consumers across sectors—energy, IT provision, and semiconductor manufacturing—as examples.

In contrast, a key feature of more integrated sustainable business models is shifting from cost-benefit to co-benefit considerations. In this and other respects, the business models presented here are also about resisting what William L. Cary (1974) coined as the "race to the bottom". They represent alternatives to rationalisation, look beyond cost leadership, and embody a shift in thinking and strategies from competition towards co-benefits and cooperation. As part of that shift, these models resist the disaggregation of ESS and the financial valorisation of the individual aspects of ESS, focusing on the role that intervention can play in creating value. To disaggregate ESS is to ignore the role that interaction and synthesis play in the functioning of ecosystems and risk fetishizing one element, such as carbon at the expense of the systemic focus required. Focusing on protecting and enhancing ecosystems entirely, it acknowledges the limits to our knowledge and understanding—previously a systemic failure in economics—and the possibility of the unexpected, such as so-called 'black swan' events.

The business models examined in this chapter focus on making lifestyles and economic systems more environmentally sustainable, for example, by maintaining the natural resource base and ecosystem integrity, nature conservation and preservation of high nature value areas, or promoting climate-friendly production systems and lifestyles. Some examples illustrate how socio-cultural and quality-of-life goals can reinforce each other.

Several food-related business models represent a redesign of a local economy based on food, agriculture, tradition and culture. They tend to feature a significantly higher value-added, and they can create employment on farms and in related rural businesses leading to a higher local and regional multiplier effect. Several examples also show that rural spaces are places of symbiotic development opportunities in, for example, environmental management or the leisure economy.

Many new business models are not organisation-centred but dependent on a joint approach by citizens, companies, and government configured around a value proposition. Some of these new business models are organised more horizontally, in networks, and digitally facilitated. If used wisely, digitalization has the potential to strengthen the interactions between parties and enable new organisational relationships. They can also open the question of distribution, which in some highly unequal countries and territories is a burning social question.

More research is needed to encourage the application of ESS and approaches aimed at the valorisation of ESS more systematically. New research-based concepts and models, such as ESS, must be piloted in real-life settings, accompanied by transformative and action-oriented empirical research. At the same time, it is important to remain critical and reflexive regarding how terms such as the bioeconomy, the circular economy, or smart growth are used, especially in policy contexts. Adopting a longer-term, societal, and equalitarian perspective in economic and business development requires significant changes in policy orientations. Climate change is driving innovation; the race now is to ensure that adaptive and transformative changes can be enacted quickly enough.

Annex 1

(New, rural) business models, their mechanisms and impacts

Business model Name	**…**
Type	Short supply chains Exploiting ecosystem services Providing care, social economy Job creation Recreation, leisure Climate change Territorial development Other (please specify) PLEASE ONLY LEAVE ONE THAT BEST CHARACTERISES THE BM
Sector	Agriculture Food Environment Services Other (please specify) PLEASE ONLY LEAVE ONE THAT BEST CHARACTERISES THE BM
Level of organisation	Individual/private/family business (e.g. farm shop) Business/chain/association/shared/societal business (e.g. cooperative) Territorial (e.g. national park, nature reserve) Other (please specify) PLEASE ONLY LEAVE ONE THAT BEST CHARACTERISES THE BM
Short description	[PLEASE DESCRIBE WHAT/WHY. MAX. 1000 CHARACTERS WITH BLANKS]
Mechanism	[PLEASE DESCRIBE HOW. MAX. 800 CHARACTERS WITH BLANKS]
Innovativeness	[PLEASE DESCRIBE IN WHAT WAY THE BM IS INNOVATIVE. MAX. 500 CHARACTERS WITH BLANKS]
Value creation	[INSERT SCORE: 1 PROFIT FIRST …… 5 MIXED …… 10 SOCIETAL GAINS]
Societal impact	Beneficial (e.g. energy transition, new jobs, empowering women to do business): • • • • Negative (e.g. pollution, spoiling the landscape, over-exploiting natural resources): • • • • [3-4 BULLET POINTS MAX. EACH ON BENEFICIAL & NEGATIVE; MAX. 600 CHARACTERS WITH BLANKS]

Business model Name	…
Rural-urban synergies	[WHAT CONTRIBUTION CAN THE BM MAKE TO IMPROVING THE RELATIONS BETWEEN RURAL, PERI-URBAN AND URBAN AREAS? MAX. 800 CHARACTERS WITH BLANKS]
Connections with labour market and employment effects	[HOW IS THE BM CONNECTED WITH LABOUR MARKETS? WHAT EMPLOYMENT IMPACTS DOES IT HAVE? MAX. 800 CHARACTERS WITH BLANKS]
Enabling factors	• • • • [3-4 BULLET POINTS; MAX. 600 CHARACTERS WITH BLANKS]
Limiting factors	• • • • [3-4 BULLET POINTS; MAX. 600 CHARACTERS WITH BLANKS]
Relevant governance arrangements	- Which kind of actors are included: public, private, civil society (third sector)? - Which territorial levels are involved: local, subregional, regional, national, global? - What do the members actually do together -what does cooperation mean in practice? - How are the network interactions organised and what are the ways and models of interaction between the actors (including virtual platforms)? - How does the network strengthen social interaction and trust? [TYPICAL INSTITUTIONAL/ORGANISATIONAL FEATURES; MAX. 800 CHARACTERS WITH BLANKS]
Role of (local) government	Initiator Facilitator Regulator Financial support/financially responsible No role PLEASE ONLY LEAVE THE ONES THAT APPLY FOR THIS
Connections with policy environment	[HOW DOES THE BM DEPEND ON RULES AND REGULATIONS, HOW CAN (LOCAL) GOVERNMENT INFLUENCE IT? MAX.800 CHARACTERS WITH BLANKS]
A typical example	[WHAT/WHERE/WHO/CONTACT FOR MORE INFO]
BM references	[URLS, PUBLICATION REFERENCES, ETC.]
Name **Date**	[PLEASE PROVIDE YOUR NAME & DATE]

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