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CRFS taxonomy Compendium



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Abbreviations

Abbreviation	Description
CBP	Capacity Building Programme
CEP	Cities2030 Educational Programme (root of the project capacity building programmes)
CFRS	Cities Regions Food Systems
CRFS-LL	Cities Regions Food Systems Living Lab(s)
CRFS-PL	Cities Regions Food Systems Policy Lab(s)
CODES	Communication Dissemination Exploitation of results Strategy
CSO	Civil Society Organisation
HSNC	Healthy Sustainable Nutritious and Culturally appropriate
EC	European Commission
ETS	Education and Training Systems
EU	European Union
EUAC	European Union and 'Associated Countries'
ExeCom	Executive Committee, composed by all WP leaders and co-leaders
EU-U11NUA	FOOD2030, SDG11, UN New Urban Agenda
IA	Innovation Action
KPI	Key Performance Indicators
NFIL	Non-Formal and Informal Learning
P-CBP	Policy capacity building programme
PMO	Project Management office
ULO	Units of Learning Outcomes
UN	United Nations
RIA	Research Innovation Action
RRI	Responsible Research and Responsibility
SSH	Social Sciences and Humanities
WP	Work package

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Executive summary

The present work proposes to use the concept of “taxonomy” to organise key components of urban food systems, framed in the project Cities2030 as cities and regions food systems (CRFS), which are defined as “*all the actors, processes and relationships that are involved in food production, processing, distribution and consumption in a given city region*”.³ Addressing challenges for a sustainable food system demands immediate action from CRFS.⁴ CRFS are proteiform orders and sui generis making it a complex task to integrate research concepts and innovation actions to support the transition toward circularity and sustainability.⁵ This situation is confirmed by the project’s collected evidence on how policies influence food systems, and how these policies are created.⁶

The main aim of the present ‘CRFS taxonomy compendium’ (CTC) is to synthesize the ideas and tools which support knowledge augmentation on CRFS. To best support the actors of food systems, CRFS key features must be better understood to generate accurate system thinking and efficient policy frameworks, participatory governance models, need-based research and innovation avenues, and sustainable business models. The ‘CRFS taxonomy compendium’ (CTC), structured in the present proposes to define an actionable framework that brings rationale to the need for such materials, considering the current European Union and ‘Associated Countries’ (EUAC) CRFS landscape, and the project’s contextualisation of the said landscape within Cities2030 proposed action plan to address CRFS sustainability. Here, the CTC suggests an ‘outline’ of key identified features of the CRFS to activate, coordinate, support, and sustain a multi-actor holistic approach for the co-creation of innovation pathways. The CTC setup is co-created with all the mentioned actors together with Cities2030’s consortium via an analogical and digital setup abiding by the EU agendas e.g., based on the principles of making data findable, accessible, interoperable, and re-usable (FAIR).

1. FRAMEWORK

[1.1 Why a CRFS taxonomy?](#)

The main aim of the present compendium is to propose an outline rather than a definition of the ‘Cities Regions Food Systems’ (CRFS) key features descriptions. The CRFS taxonomy is a prerequisite for an efficient policy response and innovative governance models to generate sustainable CRFS. Moreover, it is also a prerequisite for a sustainable business response, related to innovative business models and pioneering innovation frameworks. The compendium, which is proposed and built to facilitate the development, demonstration, and deployment of transformative innovations, integrates five specific dimensions that the consortium Cities2030 acknowledges as cardinal levers for change, interlinked and mutually supportive: (1) science; (2) technology; (3) social and societal; (4) business, and; (5) policy and governance.

The taxonomy is rooted in the monitoring framework proposed by a series of key actors of the CRFS, such as the Milan Urban Food Policy Pact (MUFPP), an international agreement on urban food policies signed by over two

³ [The CRFS approach](#), 2020

⁴ [A sustainable food system for the European Union](#), 2020

⁵ [The challenge of food systems research: what difference does it make?](#), 2018

⁶ [An overview of food systems and the role of policy](#), 2022

hundred cities from all over the world, and the European Institute of Innovation and Technology Food (EIT Food), to name but these two. There are a number of indicators assisting governing bodies (private or public) to monitor and assess CRFS, often related to food security and sustainability. Several bodies actively contribute to delivering these indicators such as the United Nation's (UN) related World Food Programme, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), the World Bank, and most nations' governing agencies⁷, among many others.

1.2 EUAC landscape

The EUAC CRFS landscape is comprehensive, often rooted in the concept of 'food security' and well-illustrated by the notion '*from farm to fork*' structured in the correlated EU policy framework and agenda (PFA)⁸, itself embedded in the *EU Green Deal*⁹, and encompassing a vast panoply of interlinked PFA such is the *Biodiversity Strategy*¹⁰, the EU action plan *Towards Zero Pollution Action Plan for Air, Water and Soil*¹¹, the European Commission (EC) initiative *long-term vision for the EU's rural areas*¹², the *Europe fit for the Digital Age* agenda¹³, the *2021 EU Adaptation Strategy*¹⁴, to name but these which are among the most prominent supporting agendas. In response to these agendas, a vast number of bodies from the EUAC implemented initiatives aiming at delivering sustainable CRFS, such is the case of the 'edible cities'¹⁵ initiatives, to name but this one. Cities2030 draws from the mentioned agenda and also synergises with a vast number of EU-funded projects, currently from the Horizon 2020 Programme: FUSILLI (ID: 101000717), Food Trails (ID: 101000812), FoodSHIFT2030 (ID: 862716), and FoodE (ID: 862663), to build upon evidence and deliver on the present CTC.

1.3 Cities2030's contextualisation

The UN-related FAO (Food and Agriculture Organisation) develops the Food Insecurity Experience Scale (FIES)¹⁶ and the prevalence of undernourishment (PoU, SDG 2, indicator 2.1.1)¹⁷. The Food and Agriculture Organisation, together with the aforementioned bodies, delivers the Food Security Outcome Monitoring¹⁸ and a series of supporting reports such as the yearly State of Food Security and Nutrition in the World (SOFI)¹⁹.

Cities2030 draws from the mechanisms and approaches practiced by these organisations to frame food-related key features to generate a 'CRFS taxonomy' that will feed the project monitoring and development watch instruments, such as Cities2030 Observatory, to name but this one.

Today, an increasing number of bodies contributes to defining and structuring food indicators with a more holistic approach incorporating a larger number of impact areas such as production, behaviours, and waste. Such bodies are distributed in society globally and may represent government agencies and the private

⁷ [Diet and nutrition, The Norwegian Institute of Public Health](#), 2020

⁸ [European Union Farm to Fork strategy](#), 2020

⁹ [The European Green Deal](#), 2019

¹⁰ [The EU's biodiversity strategy for 2030](#), 2020

¹¹ [EU Action Plan: 'Towards a zero pollution for air, water and soil'](#), 2020

¹² [European Commission initiative 'long-term vision for the EU's rural areas'](#), 2021

¹³ [A Europe fit for the digital age](#), 2020

¹⁴ [EU Adaptation Strategy](#), 2021

¹⁵ [The Edible Cities Network \(EdiCitNet\)](#), 2020

¹⁶ [The Food Insecurity Experience Scale](#), 2020

¹⁷ [The prevalence of undernourishment](#) (PoU, SDG 2, indicator 2.1.1), 2020

¹⁸ [Food Security Outcome Monitoring Q3 2019](#), 2019

¹⁹ [State of food security and nutrition in the world 2019](#), 2019

sector. Examples of such bodies (non-exhaustive) are: the International Panel of Experts on Sustainable Food Systems (IPES-Food)²⁰, an independent panel of experts; the Local Governments for Sustainability (ICLEI)²¹ an international organization of governments (local, regional, and national); the Economist Intelligence Unit (EIU) with the Barilla Center for Food and Nutrition, an initiative from the private sector; Eurocities and EU-funded structures such as EIT Knowledge and Innovation Community (EIT Climate-KIC) and EIT Food hubs, etc.

Cities2030 engages these bodies to create synergies with developing and anticipated activities, examine frameworks, approaches, and methodologies to uptake all pertinent information and experience, and secure accuracy and result-driven mechanisms for the production of the project's system thinking framework that will generate a vast panoply of actionable instruments such as the present CRFS Taxonomy compendium.

The MUFPP provides a monitoring framework (MMF) organised into six categories, outcomes areas (impact), recommended actions, and forty-four indicators that may be compared to other factors practiced by comparable initiatives.²² The UN's SDG 11²³ (to simplify for other SDGs are applicable) indicators 11.3 (urbanisation, land consumption), 11.4 (heritage), and 11.6 (waste) and UN's New Urban Agenda²⁴ comparable indicators are represented in the MMF. However, could be subject to more inclusive integration, namely in terms of urbanisation as such. Urbanisation is partially represented in the category governance, production (land e.g., soil consumption), and waste.

Cities2030 draws key learnings from the MUFPP and leverages developing experiences from pilot cities to secure accuracy and result-driven mechanisms for the co-creation of the policy and living labs, and for the co-creation of the Single Click CRFS Platform (S2CP). However, Cities2030 develops beyond the six categories enhancing the framework (outcomes, impact, indicators, recommendations, etc.) with two key pathways: nature-based solutions (NBS) and urbanisation as such. Yet, Cities2030 plans to keep the same number and nature of categories, focusing only on further fine-tuning indicators and relating them with novel outcomes, impacts and recommendations.

A number of NBS approaches already deliver evidence²⁵, and urbanisation is at the very core of cities thus well documented and piloted. Finally, Cities2030 proposes to digitise the MUFPP framework, whilst deploying pilots in cities per the MUFPP approach, to transform this framework into an actionable mechanism, the S2CP. The S2CP's key function is to assist city governing bodies to secure the management of sustainable CRFS. To that end, S2CP delivers CRFS indicators that will be displayed in a dashboard (visualisation) adaptable to all pertinent devices and media: smartphones, tablets, laptops, and last but not least digital monitors throughout the city, to secure transparency and inform citizens on the status of their city's food system in real-time. The S2CP serves two key purposes: first, provides a collective information gathered from all points of the CRFS, delivered by all agents of the CRFS, and second, a data-driven management instrument to assist in decision-making processes by all agents of the CRFS, thus cities as well.

²⁰ <https://www.ipes-food.org/>

²¹ <https://iclei.org/>

²² [Milan Urban Food Policy Pact](#), 2015

²³ [SDG 11 Make cities and human settlements inclusive, safe, resilient and sustainable](#), 2020

²⁴ [The New Urban Agenda \(Habitat III\)](#), UN, 2017

²⁵ [Cities with Nature](#), ICLEI, 2019

2. SETUP

Cities2030 proposes to set up the compendium via structuring a 'Wiki' format e.g., a server repository hosted on the project's website which allows users to collaborate in forming the content of the compendium, and via organising the information according to a concept of "taxonomy" approach (though not applying this concept strictly). This is provided in the project's observatory platform²⁶. The compendium is assembled with a series of entries based on the key findings generated by the participatory studies developed by the project so far, which are further complemented, updated, and enriched by new findings along the project development until September 2024 and beyond.

The main driver of the present work is the Milan Urban Food Policy Pact monitoring framework handbook and resource pack.²⁷ However, given the aim of this taxonomy to summarize the existing tools and knowledge on CRFS, the work considers all the already mentioned organisations in the previous section, to cover the existing monitoring indicators in different areas. In this context, our framework builds on the UN-related FAO (Food and Agriculture Organisation) for the Food Insecurity Experience Scale (FIES)²⁸ and the prevalence of undernourishment (PoU, SDG 2, indicator 2.1.1)²⁹. These organisations have provided the Food Security Outcome Monitoring³⁰ and a series of supporting reports such as the yearly State of Food Security and Nutrition in the World (SOFI)³¹.

Additionally, important components of the food systems are both UN's SDG 11³² indicators 11.3 (urbanisation, land consumption), 11.4 (heritage), and 11.6 (waste) and UN's New Urban Agenda³³ comparable indicators represented in the MMF. However, could be subject to more inclusive integration, namely in terms of urbanisation as such. Urbanisation is partially represented in the category governance and production (land e.g., soil consumption) and waste, though it is not a key component also incorporating circularity and valorisation as such.

Cities2030 draws from the mechanisms and approaches practiced by these organisations to frame food-related needs to generate a food system and ecosystem taxonomy that will feed the project observatory, the "CRFS Intelligence Lab", established by UNIVE (P1). Key learnings are drawn from the MUFPP and leveraged with developing experiences from pilot cities to secure accuracy and result-driven mechanisms for the co-creation of the policy and living labs, and the co-creation of the S2CP. However, as previously mentioned, Cities2030 develops beyond the six categories enhancing the framework (outcomes, impact, indicators, recommendations, etc.) with two key pathways: NBS and urbanisation as such. Still, Cities2030 maintains the same number and nature of categories, focusing only on further fine-tuning indicators and relating them with novel outcomes, impacts, and recommendations. Several NBS approaches already deliver evidence,³⁴ and urbanisation is at the very core of cities, thus well documented and piloted. Finally, Cities2030 proposes to digitise the MUFPP framework, whilst deploying pilots in cities per the MUFPP

²⁶ [Cities2030 Observatory](#), Cities2030, 2022

²⁷ [MUFPP Monitoring Framework](#), Milan Urban Food Policy Pact, 2021

²⁸ [The Food Insecurity Experience Scale](#), 2020

²⁹ [the Prevalence of Undernourishment](#) (PoU, SDG 2, indicator 2.1.1), 2020

³⁰ [Food Security Outcome Monitoring Q3 2019](#), 2019

³¹ [State of Food Security and Nutrition in the World 2019](#), 2019

³² [SDG 11 Make cities and human settlements inclusive, safe, resilient and sustainable](#), 2020

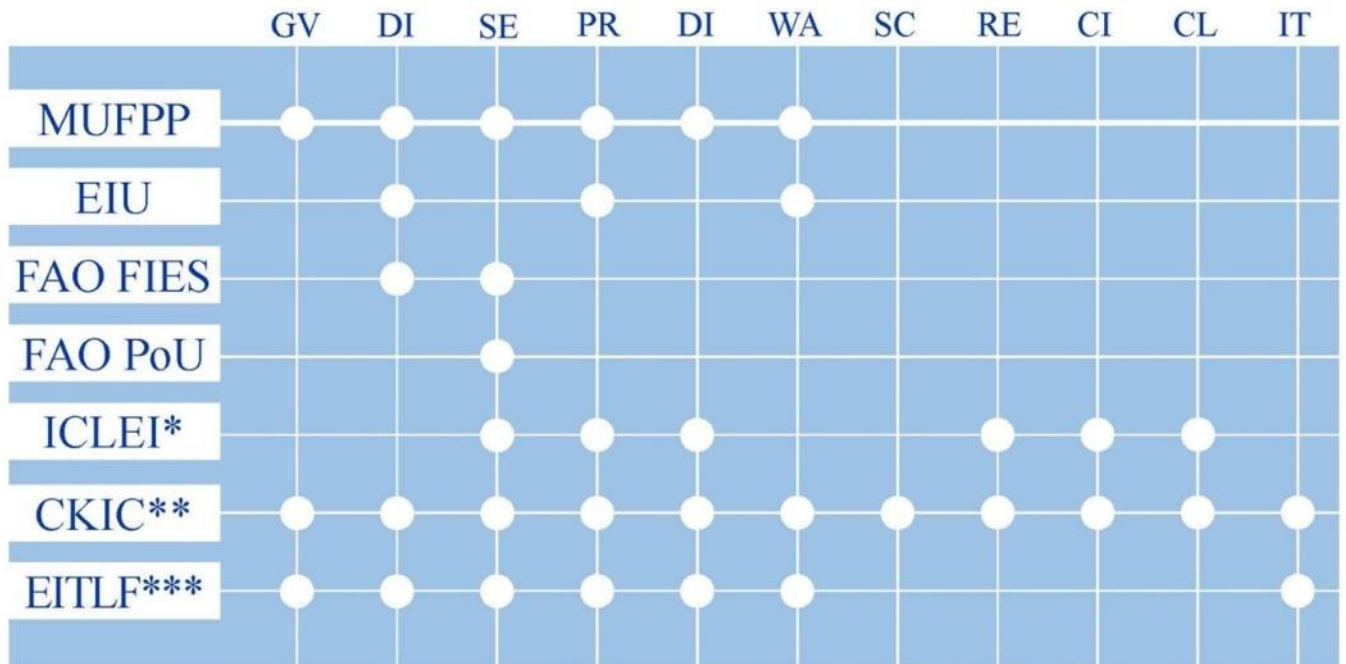
³³ [The New Urban Agenda \(Habitat III\)](#), UN, 2017

³⁴ [Cities with Nature](#), ICLEI, 2019



approach, to transform this framework into an actionable mechanism, the Single Click CRFS Platform (S2CP). The S2CP's key function is to assist city governing bodies to secure the management of sustainable CRFS.

The figure below outlines the panoply of categories of indicators currently in practice among key actors of the food landscape.



GV: food governance | DI: sustainable diet and nutrition | SE: social and economic equity | PR: food production | DI: food supply and distribution | WA: food waste
SC: food security | RE: resilience | CI: circularity | CL: culture and education | IT: digitalization and connected environments

Figure 1. Summary comparative table of food-related indicators

- * Extrapolation of ICLEI 5 Pathways³⁵
- ** Extrapolation of Climate KIC Food value chains strategy³⁶
- *** Extrapolation of EIT Food Strategic Innovation Agenda (2021- 2027)³⁷

³⁵ [ICLEI 5 Pathways](#), 2017

³⁶ [Climate KIC "Food value chains strategy"](#), 2019

³⁷ [EIT Food Strategic Innovation Agenda \(2021- 2027\)](#), 2018

3. COMPENDIUM

Table 3 (below) proposes a description of key features of the CRFS part of project Cities2030 concept and correlated to the panoply of indicators identified from miscellaneous sources active in the food landscape (see chapter 2), yet organised according to the six MUFPP categories. The indication “MI-n” stands for “MUFPP Indicator Number”: when applicable, the entry is correlated with a specific MI constituent of the MUFPP monitoring framework. Additional references are assembled in the last section.

3.1 Governance

Suggested entry	Suggested outline abstract from a specific source	Reference of the suggested outline
Cities and Regions Food Systems (CRFS)	A City Region Food Systems (CRFS) approach aims to foster the development of resilient and sustainable food systems within urban centres, peri-urban and rural areas surrounding cities by strengthening rural-urban linkages.	Resource centre on Urban Agriculture and Food Security, RUAF (2017) . City Region Food Systems (CRFS).
	A City Region Food System is defined as “all the actors, processes and relationships that are involved in food production, processing, distribution and consumption in a given city region”. Additionally, city region food systems are connected to many other rural and urban sectors (e.g. food security, economic development, water and waste management, energy, transport, health, climate change, governance, and spatial planning, etc.). By taking this into account, economic, social, and environmental sustainability linkages can be acknowledged.	The Food and Agriculture Organization (Food and Agriculture Organisation) . CRFS Programme.
Common Agricultural Policy (CAP)	Launched in 1962, the EU's common agricultural policy (CAP) is a partnership between agriculture and society, and between Europe and its farmers (New Common Agricultural Policy: set for 1 January 2023)	The European Commission - Agriculture and rural development (2022) . The common agricultural policy at a glance
Bioeconomy strategy (EU)	The bioeconomy strategy will accelerate the deployment of a sustainable European bioeconomy. It has five goals: (a) ensure food and nutrition security, (b) manage natural resources sustainably, (c) reduce dependence on non-renewable, unsustainable resources, (d) limit and adapt to climate change, and (e) strengthen European competitiveness and create jobs. The strategy contributes to the European Green Deal, as well as industrial, circular economy and clean energy innovation strategies. They all highlight the importance of a	The European Commission - Research and innovation (2012) . Bioeconomy strategy.

Suggested entry	Suggested outline abstract from a specific source	Reference of the suggested outline
	sustainable, circular bioeconomy to achieve their objectives. The strategy is implemented by means of an action plan.	
Data space (EU)	To harness the value of data for the benefit of the European economy and society, the Commission supports the development of common European data spaces in strategic economic sectors and domains of public interest. The European data strategy of February 2020 announced the creation of data spaces in 10 strategic fields: health, agriculture, manufacturing, energy, mobility, financial, public administration, skills, the European Open Science Cloud and the crosscutting key priority of meeting the Green Deal objectives. Since then, data spaces in other important areas such as media and cultural heritage have also emerged. The ultimate goal is that together, the data spaces will form a single European data space: a genuine single market for data.	The European Commission - Policy and legislation (2022) . Staff working document on data spaces.
European Food Safety Authority (EFSA)	It is an agency of the European Union set up in 2002 to serve as an impartial source of scientific advice to risk managers and to communicate on risks associated with the food chain. We cooperate with interested parties to promote the coherence of EU scientific advice. We provide the scientific basis for laws and regulations to protect European consumers from food-related risks – from farm to fork.	European Union. European Food Safety Authority (EFSA) .
Farm-to-fork (EU strategy)	The Farm to Fork Strategy lays down a new approach to ensure that agriculture, fisheries and aquaculture, and the food value chain contribute appropriately to this process. The transition to sustainable food systems is also a huge economic opportunity.	European Union (2020). Farm to Fork Strategy .
Food 2030	Food 2030 is the EU's research and innovation policy to transform food systems and ensure everyone has enough affordable, nutritious food to lead a healthy life. The ambition is to achieve a resilient food system that is fit for the future. Food systems need to also deliver co-benefits for people's health, our climate, planet and communities. Food 2030 provides the policy framework to accelerate this transition within safe planetary boundaries. It is in line with, and supports,	European Commission - Research and innovation (2019) . Food 2030.

Suggested entry	Suggested outline abstract from a specific source	Reference of the suggested outline
	the goals of the European Green Deal, Farm to Fork strategy and bioeconomy strategy.	
Food System	An 'interconnected system of everything and everybody that influences, and is influenced by, the activities involved in bringing food from farm to fork and beyond'	Brief 2: Understanding the food system: Why it matters for food policy Kelly Parsons K. et al. in <i>Rethinking Food Policy</i> , Centre for Agriculture, Food and Environmental Management Research, University of Hertfordshire, UK
Glasgow Food and Climate Declaration	The Glasgow Food and Climate Declaration brings together local and regional authorities from across the world to speak with a unified voice in committing to putting into practice integrated food policies to tackle the climate emergency. Launched at the UN COP26 climate negotiations in Glasgow, the call encourages national governments to take joined-up action on food and climate.	The Glasgow Food and Climate Declaration signatories . Glasgow Food and Climate Declaration
Governance (food)	Food governance can be understood as the "architecture of food systems" (Berry, 2019) that allows formal and informal interactions between institutions and people to enable the environment in which food systems perform (Candel, 2014; Kennedy et al., 2017; Béné et al., 2019)	Martín Del Valle et al. (2022) . Food governance for better access to sustainable diets: A review. In <i>Frontiers in Sustainable Food Systems</i> . Berry M. E. (2019) . Sustainable Food Systems and the Mediterranean Diet. USA: <i>National Library of Medicine</i> . Candel, J. (2014) . Food security governance: a systematic literature review. In <i>Food Security</i> . Kennedy, G. et al. (2017) . Leveraging Agrobiodiversity to Create Sustainable Food Systems for Healthier Diets. United Nations System Standing Committee on Nutrition (UNSCN) News. Béné, C. et al. (2019) . When food systems meet sustainability - current narratives and implications for actions. In <i>World Development</i> .
Green Deal (EU)	The European Green Deal is a European Union agenda and roadmap which sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's health and quality of life, caring for nature, and leaving no one behind	The European Commission (strategy and policy priorities) . A European Green Deal: striving to be the first climate-neutral continent.
Milan Urban Food Policy Pact	The Milan Urban Food Policy Pact (MUFPF) is an international agreement of Mayors. It is more than a declaration, it is a concrete working tool for cities. It is composed by a preamble and a Framework for Action listing 37 recommended actions, clustered in 6 categories. For each recommended action there are	MUFPF Secretariat . Milan Urban Food Policy Pact

Suggested entry	Suggested outline abstract from a specific source	Reference of the suggested outline
	specific indicators to monitor progresses in implementing the Pact. The Milan Pact Awards offer concrete examples of the food policies that cities are implementing in each of the 6 Pact categories.	
Participatory governance	A variant or subset of governance which puts emphasis on democratic engagement, in particular through deliberative practices.	The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (2015) . Participatory governance.
Policy (food) MI-23, MI-26	Food policy is an umbrella term for all the policies related to the production, processing, distribution, purchase, consumption and disposal of a nation's foodstuffs. The Common Agricultural Policy, the sugar tax, free school meals and food labels are all examples of food policy.	Kelly Parsons (2017) . How is food policy made? UK: <i>The Social Research Association (SRA)</i> .
Resilience (food systems) MI-6, MI-35	Food system resilience is the system's capacity to deliver desired outcomes when exposed to stresses and shocks. Enhancing resilience of a food system can be achieved in three ways: robustness, recovery and re-orientation.	The Resilience of the UK Food System in a Global Context (GFS-FSR) research programme (2023) . What is food system resilience?
Sustainable development Goals (SDG)	SDG-2 "Zero hunger" mission's statement: "creating a world free of hunger by 2030." SDG-3 "Good health and well-being" mission's statement: "ensure healthy lives and promote well-being for all at all ages." SDG-5 "Gender equality" mission's statement: "achieve gender equality and empower all women and girls" SDG-8 "Decent work and economic growth" mission's statement: "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" SDG-9 "Industry, innovation and infrastructure" mission's statement: "build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation." SDG-10 "Reduced inequality" mission's statement: "reduce inequality within and among countries". SDG-11 "Sustainable cities and communities" mission's statement: "make cities and human settlements inclusive, safe, resilient, and sustainable" SDG-12 "Responsible consumption and production" mission's statement: "Ensure sustainable consumption and production patterns"	The United Nations (2015) . Sustainable Development Goals.

Suggested entry	Suggested outline abstract from a specific source	Reference of the suggested outline
	<p>SDG-13 "Climate action" mission's statement: "Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy"</p> <p>SDG-14 "Life below water" mission's statement: "Conserve and sustainably use the oceans, seas and marine resources for sustainable development"</p> <p>SDG-15 "Life on land" mission's statement: "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"</p>	
Transition (food, towards sustainability)	Enabling sustainable and healthy diets with a greater emphasis on a diversity of foods, mostly plant-based, and more moderate consumption of meat and fish, as well as dramatic cuts in the waste involved in food supply and consumption. This transition recognizes the potential nutritional benefits from diverse foods and food systems, and the need to reduce demand-driven pressures globally while ensuring food security in all its dimensions.	The Convention on Biological Diversity – United Nations Environment Programme (2021) . The sustainable food systems transition.
Urban food system	Urban food systems encompass activities that are directly related to food such as growing, serving, designing policies for and about food, and other activities that take place in urban food systems.	<p>Ilieva T.R. (2017). Urban food systems strategies: a promising tool for implementing the SDGs in Practice. In <i>Sustainability</i>.</p> <p>Kasper, C. et al. (2017). The urban food system approach: thinking in spatialized systems. In <i>Agroecology and Sustainable Food Systems</i>.</p>

3.2 Sustainable diets and nutrition

Suggested entry	Suggested abstract from a specific source	Suggested references
Desert (food) MI-8	The concepts of food deserts and swamps were introduced into the scientific literature to identify neighbourhoods with low access to healthy foods. Food deserts have been defined as neighbourhoods that lack access to some or all the foods that are required for a balanced, nutritionally adequate diet	Smets V. et al. (2022) . The Changing Landscape of Food Deserts and Swamps over More than a Decade in Flanders, Belgium.
Diabetes type 2 MI-11	Type 2 diabetes is an impairment in the way the body regulates and uses sugar (glucose) as a fuel. This long-term (chronic) condition results in too much sugar circulating in the bloodstream. Eventually, high blood sugar levels can lead to disorders of the circulatory, nervous and immune systems.	Mayo clinic (2023) . Type 2 diabetes.

Suggested entry	Suggested abstract from a specific source	Suggested references
Diet MI-14	A diet is the combination of foods typically eaten by a specific group of people or other organisms. Human diets are determined by nutritional needs, the types of food available in a particular region, and cultural beliefs.	National Geographic Society (2022) . Diet.
Dietary diversity MI-7 MI-16	Dietary diversity is defined as the number of food groups or items consumed over a reference period. It can be measured at a household or individual level through the use of a questionnaire. Most often, it is measured by counting the number of food groups rather than the food items consumed.	Gonete K. A. et al. (2017) . Dietary diversity practice and associated factors among adolescent girls in Dembia district, northwest Ethiopia.
Obesity MI-12	Obesity is a complex disease that presents a risk to health. Its causes are much more complex than the mere combination of unhealthy diet and physical inactivity. This report presents the latest evidence, highlighting how vulnerability to unhealthy body weight in early life can affect a person's tendency to develop obesity. Environmental factors unique to living in modern Europe's highly digitalized societies are also drivers of obesity. The report explores, for example, how the digital marketing of unhealthy food products to children, and the proliferation of sedentary online gaming, contribute to the rising tide of overweight and obesity in the European Region. However, it also looks at how digital platforms might also provide opportunities for the promotion and discussion of health and well-being.	The World Health Organization (2022) . New WHO report: Europe can reverse its obesity "epidemic".
Nutrition	A balanced and varied diet, composed of a wide range of nutritious and tasty foods	The World Health Organisation (2022) . Nutrition
	Nutrition is about eating a healthy and balanced diet. Food and drink provide the energy and nutrients you need to be healthy. Understanding these nutrition terms may make it easier for you to make better food choices.	National Library of Medicine (2022) . Definitions of Health Terms: Nutrition. USA: <i>MedlinePlus</i> .
	Nutrition is the study of nutrients in food, and how our bodies use them to keep us alive and healthy. It includes the nutrients that are important for our health, how we can achieve a healthy nutritional balance through diet, and the biochemical and physiological processes that make nutrients useful. It also focuses on using diet to prevent disease. The seven nutrients essential to our health are protein, carbohydrates, fibre, fats, minerals, vitamins, and water (more on these below). The amount of nutrients we need depends on our age,	Australian Natural Therapists Association (2021) . what is nutrition & why does it matter?

Suggested entry	Suggested abstract from a specific source	Suggested references
	how much we exercise, whether we have diseases, medications we are taking, and if we are pregnant. In this article, we'll cover the key topics on nutrition, including why it is important, the risks of poor nutrition, what makes a healthy diet, information on the essential nutrients and vitamins, and more.	
Nutritional value	The nutritional value of a food describes the amount of carbohydrates, fats, proteins and energy that can be used during digestion. Not only the quantitative nutritional content of a product is important, but also the nature of the respective nutrient, the relationship between the nutrients and the daily needs of a particular person. For example, some experts evaluate the unsaturated fatty acids found in vegetable fats higher in quality than the saturated fatty acids contained in animal fats. Therefore, it is important to know what proportion of the fats in a product are unsaturated or saturated fatty acids. It is also important to note how much of the nutrients a person needs. This value depends on the gender or age of the person concerned.	Producto Check GmbH (2022) . What are nutritional values?
Sustainable nutrition	Sustainable Nutrition is defined as the ability of food systems to provide sufficient energy and essential nutrients to maintain good health of the population without compromising the ability of future generations to meet their nutritional needs. It is nutrition that is produced and delivered in a way that is mindful for people, the planet, and society.	Smetana M. S. et al. (2019) . A Path From Sustainable Nutrition to Nutritional Sustainability of Complex Food Systems. In <i>Frontiers in Nutrition</i> . Kerry Group (2021) . What is sustainable nutrition? Ireland: <i>Kerry Health and Nutrition Institute</i> .
Swamp (food)	Food swamps refer to places where there is an abundance of unhealthy food options relative to healthy food options. The link between food swamps, diet-related behavior and obesity has been clearly established by previous studies.	Smets V. et al. (2022) . The Changing Landscape of Food Deserts and Swamps over More than a Decade in Flanders, Belgium.

3.3 Social and economic equity

Suggested entry	Suggested abstract from a specific source	Suggested references
Bank (food)	Food banks are charitable non-profit organisations and centres where people can access food and hygiene supplies when they are in need. Food banks are often placed in communities to provide food storage of the donated foods.	Twinkl teaching guide (2022) . About food banks: What is a food bank?

Suggested entry	Suggested abstract from a specific source	Suggested references
Economic equity	Economic equity is defined as the fairness and distribution of economic wealth, tax liability, resources, and assets in a society.	Chiu Eva (2019) . Economic Equity and Sustainable Development. In Encyclopedia of Sustainability in Higher Education.
Economic equity (food)	It is a system that, from farm to table, from processing to disposal, ensures economic opportunity; high-quality jobs with living wages; safe working conditions; access to healthy, affordable, and culturally appropriate food; and environmental sustainability.	PolicyLink (2022) . Equitable Food Systems Resource Guide.
Ethics (food)	The principles that dictate what counts as acceptable treatment of others in relation to food.	Food Ethics Council (2023) . What is food ethics?
	Food ethics is the interdisciplinary study of how what we eat – including the way it is produced, distributed, marketed, prepared, and ultimately consumed – impacts human, animal, and planetary health and well-being. Food ethics also analyses the justice or fairness of these impacts.	Fanzo J. et al. (2020) . An Overview of the Ethics of Eating and Drinking. In Handbook of Eating and Drinking.
	Is it wrong to sacrifice pristine tropical rainforest for the production of cheap beef, soya and palm oil? Should the marketing of HFSS (high fat, sugar and salt) snack foods and sugary carbonated beverages to children be more tightly controlled? Does the food industry put profit before planet with single-use plastic food packaging? Why should farmers and the food industry be concerned about animal welfare and environmental sustainability? These questions are typical of those analysed within the field of food ethics.	Institute of Food Science & Technology (2019) . Food ethics: the moral maze.
Insecurity (food) MI-18	Food insecurity is the state of living without reliable access to affordable, nutritious food. It can be linked to malnutrition, including overweight and obesity, primarily due to the types of food people have access to and the quality of their diets (4). Having a lack of financial or geographical means to have a regular, healthy diet, for example, could result in a person or family being food insecure.	EIT Food (2021) . Obesity, malnutrition and food insecurity: what are the solutions?
Security (food)	Based on the 1996 World Food Summit, food security is defined when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.	The World Bank Group (2023) . What is Food Security?

Suggested entry	Suggested abstract from a specific source	Suggested references
Sharing (food)	Having a portion [of food] with another or others; giving a portion [of food] to others; using, occupying or enjoying food [and food related spaces to include the growing, cooking and/or eating of food] jointly; possessing an interest in food in common; or telling someone about food.	Cambridge University Press (2017) - Bristol University Press; Policy Press and JSTOR (2019) . Introduction: the significance of food sharing
Social equity (food)	Food equity is the belief that people should have equal access to and the ability to grow and consume healthy, affordable, and culturally-significant foods. In a food-equitable system, community members could grow, barter, purchase, or sell their food knowing exactly where their food came from and how it was grown. Food equity is achieved when communities — especially underserved groups — have fair access to these types of food retailers and community gardens producing food via sustainable practices and supporting local farmers with reasonable wages and accommodations.	Amanda Scarangella(2021) . Understanding food equity and global hunger terminology: USA: Random Acts

3.4 Food production

Suggested entry	Suggested abstract from a specific source	Suggested references
Agricultural system	An agricultural system, or agro-ecosystem, is a collection of components that has as its overall purpose the production of crops and raising livestock to produce food, fiber, and energy from the Earth's natural resources.	Jones W. J. et al. (2017) . Brief history of agricultural systems modeling. In <i>Agricultural Systems (Elsevier)</i> .
Agriculture (urban), also urban farming MI-30	'Urban farming' is the practice of agriculture within cities and their immediate vicinity. Anchored in the urban ecosystem, it produces primarily for local consumption. The practice has a long history, dating back to Mesopotamia in 4000 BCE. In modern times, urban farming has resurfaced during crises, as with 'Dig for Victory' campaigns during the Second World War. Urban farms come in various forms, including vertical farming (also known as 'plant factories') and rooftop farming. They embrace several technological innovations, such as hydroponics, aquaponics, and LED lighting. Often profit-driven, urban farms usually operate on a smaller scale than modern industrial farms. A difference from urban gardening (e.g. community gardens) is that urban farms combine	The European Parliamentary Research Service - EPRS Strategic Foresight and Capabilities Unit (2021) . Urban farming: A gateway to greater food security?

Suggested entry	Suggested abstract from a specific source	Suggested references
	economic interests with societal benefits. Studies suggest urban farming may account for 1-5 % of annual global food production.	
Agrifood system	This describes the subsectors that make up agrifood systems: crops, livestock, forestry, aquaculture, and fisheries. Based on the relative abundance of land, labor, and capital, three broad agrifood systems can be distinguished. These are extensive (i.e., land-intensive), labor-, and capital-intensive systems. These are defined using a combination of biophysical and socioeconomic characteristics. The main structures and functions of these systems are described and, using proxies for each of the production factors these are mapped globally for crop-, livestock-, and forest-based agriculture.	Editors: Clayton Campanhola, Shivaji Pandey (2019) . Sustainable Food and Agriculture - An Integrated Approach - Chapter 33: Agrifood Systems. <i>Academic Press</i> .
Bio-based (circular) food economy	The bioeconomy is the production, utilization, conservation, and regeneration of biological resources, including related knowledge, science, technology, and innovation, to provide sustainable solutions (information, products, processes and services) within and across all economic sectors and enable a transformation to a sustainable economy	Global Bioeconomy Summit 2020 Communiqué (2020) . Expanding the Sustainable Bioeconomy – Vision and Way Forward.
	Bioeconomy is the production, utilization and conservation of biological resources, including related knowledge, science, technology, and innovation, to provide information, products, processes and services across all economic sectors aiming toward a sustainable economy. The bioeconomy concept aims at reducing greenhouse gas (GHG) emissions, increasing energy and material use efficiency, fostering responsible consumption, social inclusion and innovation.	European Commission Knowledge for policy (2021) . The Bioeconomy and food systems transformation - Food systems summit brief.
Biofertilizers (food)	Biofertilizers are living microbes that enhance plant nutrition by either by mobilizing or increasing nutrient availability in soils.	Mitter K. E. et al. (2021) . Rethinking Crop Nutrition in Times of Modern Microbiology: Innovative Biofertilizer Technologies. In <i>Frontiers in Sustainable Food Systems</i> .
Cultured meat	Cultured meat – animal meat produced with the help of tissue engineering techniques – is proposed as a solution to the adverse effects of the meat producing industry and its environmental impact.	Ketelings L. et al. (2021) . The barriers and drivers of a safe market introduction of cultured meat: a qualitative study. In <i>Food Control</i> .
Farming (sustainable)	Farming that maintains rural activity and contributes to protecting the environment, from biodiversity to soil, water, and air	Towards a common food policy for the European Union , (2019). Section 'Foreword' by Karl Falkenberg, a former trade negotiator and Director for

Suggested entry	Suggested abstract from a specific source	Suggested references
		Environment within the European Commission, and Senior Advisor to the European Political Strategy Centre (EPSC) dealing with Sustainable Development until 2018
Garden (urban, food) MI-30	Urban gardens are a key component of the traditional urban and peri-urban landscapes of the main European cities. Beyond food production and consumption, urban gardens provide a wide range of ecosystem and social services, with a positive impact on the urban and socio-residential environment.	Project U-GARDEN, URBAN EUROPE Programme (2022) . U-GARDEN: promoting capacity building and knowledge for the extension of urban gardens in European cities.
Geographical indication (EU)	The EU geographical indications system protects the names of products that originate from specific regions and have specific qualities or enjoy a reputation linked to the production territory.	The European Commission - Farming - Geographical indications (2023) . Geographical indications and quality schemes explained.
Industrial agriculture (food)	Industrial Agriculture is the intensive and competitive farming model we have seen through the last decades. Industrial Agriculture is characterized by big farms that produce the same crop year after year with extensive use of chemical fertilizers, herbicides, and pesticides. In most cases, achieving the best yield at all costs is the only thing that matters in Industrial Agriculture. In these monoculture farms, local ecosystems and biodiversity suffer, while soil and other natural resources have constantly been depleted, something that is not fair for the next generations of farmers.	Wikifarmer (2023) . What is industrial agriculture?
Smallholders (farmers)	Smallholders means to farmers who conduct independently an agricultural activity on a holding with an agricultural area of less than 2 hectares for which they hold ownership, tenure rights or any equivalent title granting them control over land, and who are not employed by a company, except for a cooperative of which they are members with other small holders, provided that such a cooperative is not controlled by a third party	Fair Trade Advocacy Office, Fern, IUCN NL, Solidaridad and Tropenbos International. (2021) . Including smallholders in EU action to protect and restore the world's forests. Briefing paper. The Netherlands.
Land use (agricultural) MI-29	Land under agricultural use encompasses various land cover types: the most common are arable land, permanent crops and grassland. Small portions of other land cover types such as artificial land (for example, farm buildings or roads) and water (for example, irrigation ponds) can also be in agricultural use.	Eurostat (2021) . Land use statistic.

Suggested entry	Suggested abstract from a specific source	Suggested references
Novel food	Novel food is defined as food that had not been consumed to a significant degree by humans in the EU before 15 May 1997, when the first Regulation on novel food came into force. 'Novel Food' can be newly developed, innovative food, food produced using new technologies and production processes, as well as food which is or has been traditionally eaten outside of the EU. Examples of novel food include new sources of vitamin K (menaquinone) or extracts from existing food (Antarctic Krill oil rich in phospholipids from <i>Euphausia superba</i>), agricultural products from third countries (chia seeds, noni fruit juice), or food derived from new production processes (UV-treated food (milk, bread, mushrooms and yeast). The underlying principles underpinning novel food in the European Union are that Novel Foods must be: (a) safe for consumers, (b) properly labelled, so as not to mislead consumers, (c) if novel food is intended to replace another food, it must not differ in a way that the consumption of the novel food would be nutritionally disadvantageous for the consumer. Pre-market authorisation of Novel Foods on the basis of an evaluation in line with the above principles is necessary.	The European Commission (2023) . Novel Food - What is Novel Food?
Nutrients budget	A nutrient budget is a modelled calculation of nutrient losses from your farm. In many Zones throughout Canterbury, nitrogen losses, in particular, will be needed to determine whether a farm needs a consent or not. A nutrient budget is also required for farming land use consent applications.	Environment Canterbury (2023) . Nutrient Budget.
Organic farming and food (also waste e.g. supply chain) MI-33	Organic farming is an agricultural method that aims to produce food using natural substances and processes. This means that organic farming tends to have a limited environmental impact as it encourages: (a) responsible use of energy and natural resources; (b) maintenance of biodiversity; (c) preservation of regional ecological balances; (d) enhancement of soil fertility; (e) maintenance of water quality. Additionally, organic farming rules encourage a high standard of animal welfare and require farmers to meet the specific behavioural needs of animals. European Union regulations on organic farming are designed to provide a clear structure for the production of organic goods across the whole of the EU.	The European Commission - Organic farming - Organic at a glance (2023) . Aims of organic farming.

Suggested entry	Suggested abstract from a specific source	Suggested references
	This is to satisfy consumer demand for trustworthy organic products whilst providing a fair marketplace for producers, distributors and marketers.	
Biopesticides (food)	In the EU, biopesticides are defined as 'a form of pesticide based on microorganisms or natural products'. They originate from nature, don't cause harm to humans and have minimal impact on the environment, but they are classified as active substances under EU regulations.	TSG Consulting (2021) . Biopesticide active substances in the EU: navigating approval.
Pollination, pollinator	In Europe, pollinators are mostly insects, such as bees, hoverflies, butterflies, moths, wasps, beetles and other fly species. Some of these species are domesticated, like for example a honeybee.	The European Commission - EU Pollinator Information Hive (2022) . About pollinators.

3.5 Food supply and distribution

Suggested entry	Suggested abstract from a specific source	Suggested references
Branding (food, see also "labelling" below)	The purpose of food branding is to express personality and uniqueness so that you are not confused with similar companies on the market. Contribute to promotion. Branding creates a holistic image of a business, which is used in all promotion channels from accounts on social media to banner advertising.	ZenBusiness INC (2020) . All you need to know about food branding: ideas, examples, tips.
Chain (food supply chain)	A food supply chain is the process that all food products go through, from production all the way through to consumption. The food supply chain is, thus, a hugely important step in how you safely consume and understand the food you eat.	Addie Lewis (2022) . Food Supply Chain: Importance & Management Strategies. UK: High Speed Training Ltd
Chain (food value chain)	What is a value chain? Agri-food value chains are designed to increase competitive advantage through collaboration in a venture that links producers, processors, marketers, food service companies, retailers and supporting groups such as shippers, research groups and suppliers.	
Commodity prices (food)	Food prices refer to the average price of particular food commodities globally and across countries. The price of goods not only provide an important indicator of the balance between agricultural production and market demand, but also have strong impacts on food affordability and income. Food prices not only influence consumer affordability, but also influence the income of farmers and producers. In low-to-middle income countries in particular, a large share of the population is employed	Max Roser and Hannah Ritchie - Our World In Data (2021) . Food Prices. UK: <i>Global Change Data Lab</i> .

Suggested entry	Suggested abstract from a specific source	Suggested references
	in agriculture. Producers typically benefit from higher food prices; consumers from lower prices. Food markets can therefore have a strong impact on food affordability, hunger and undernourishment and dietary quality.	
Labelling (food, see also “branding” above)	Labels with information about the ingredients and properties of a foodstuff serve to protect consumers and assist them in making better-informed choices. People want clarity on certain issues. Does the product contain any additives, allergens or genetically modified organisms? How much energy, sugar, fat and salt does the foodstuff provide? Manufacturers are therefore obliged to disclose a range of clearly legible information on the label – including details about the ingredients and the best-before date. Food labelling requirements are laid down in EU legislation. This means that uniform standards apply throughout all the Member States of the European Union. EU Regulation No. 1169/2011 will apply from 13 December 2014. It updates the labelling legislation and brings together in one place the previously relevant legal areas. In addition, it improves the legibility of information on packaging by stipulating a minimum font size.	Federal Ministry of Food and Agriculture (2020) . Food labelling. Germany
Short supply chain (food)	A short food supply chain (SFSC), as defined by the EU, is a supply chain involving a limited number of economic operators, committed to cooperation, local economic development, and maintaining close geographical and social relations between food producers, processors and consumers.	eufic (2021) . Short food supply chains: reconnecting producers and consumers.
	In the research literature, as well as in the public discourse, short food supply chains (SFSCs) are often seen as an alternative form of food distribution with importance for sustainable transition of the food system. SFSCs differ from conventional long food chains by having a limited number of economic operators (social proximity) and geographical proximity between producers and consumers.	Vittersø G. et al. (2019) . Short Food Supply Chains and Their Contributions to Sustainability: Participants’ Views and Perceptions from 12 European Cases. In Sustainability.

3.6 Food waste

Suggested entry	Suggested abstract from a specific source	Suggested references
Circular economy, circularity	Circular economy is about minimising waste generation and maintaining the economic value of products, materials and resources as long as possible. It can take	Business Europe (2023) . Circular economy.

Suggested entry	Suggested abstract from a specific source	Suggested references
MI-41, MI-42, MI-43, MI-44	<p>several forms: from reducing the use of virgin resources and energy to redesigning products for better recycling, or cooperation between companies through an industrial symbiosis where one industry's waste is another industry's input.</p> <p>A circular economy for food mimics natural systems of regeneration so that waste does not exist, but is instead feedstock for another cycle. In a circular economy, organic resources such as those from food by-products, are free from contaminants and can safely be returned to the soil in the form of organic fertiliser.</p>	<p>Ellen MacArthur Foundation (2023). Food and the circular economy.</p>
Loss (and waste) MI-41, MI-42, MI-43, MI-44	<p>Food "loss" occurs before the food reaches the consumer as a result of issues in the production, storage, processing, and distribution phases. Food "waste" refers to food that is fit for consumption but consciously discarded at the retail or consumption phases.</p>	<p>Harvard T. H. Chan (2023). Food Waste.</p>

3.7 Resilience

Suggested entry	Suggested abstract from a specific source	Suggested references
Critical infrastructure (food supply) MI-35	<p>European critical infrastructure: while recognising threats resulting from terrorism as a priority, it embraces an all-hazards approach towards the protection of critical infrastructure, encompassing man-made and technological threats (e.g. industrial incidents, blackouts, terrorism) as well as natural disasters caused for instance by earthquakes, or extreme weather conditions, such as flooding and hurricanes. The initial Commission proposal (COM(2006) 787) provided for nine critical infrastructure sectors in addition to energy and transport, in which food is incorporated.</p>	<p>Irmgard Anglmayer. European Parliamentary Research Service, Ex-Post Evaluation Unit (2021). Briefing implementation appraisal: European critical infrastructure revision of Directive 2008/114/EC.</p>

3.8 Digitization and connected environments

Suggested entry	Suggested abstract from a specific source	Suggested references
Artificial intelligence MI-5	<p>Artificial intelligence is a branch of computer science which mainly deals in creating machines that are developed in such a way that it acts like a human being.</p> <p>Artificial intelligence with data science can improve the quality of restaurants, cafes, online delivery food chains, hotels, and food outlets by increasing production</p>	<p>Chidinma Mary Agbai (2020). Application of artificial intelligence (AI) in food industry.</p> <p>Kumar I et al. (2021). Opportunities of Artificial Intelligence and Machine Learning in the Food Industry. In Journal of Food Quality.</p>

Suggested entry	Suggested abstract from a specific source	Suggested references
	utilizing different fitting algorithms for sales prediction. AI could significantly improve packaging, increasing shelf life, a combination of the menu by using AI algorithms, and food safety by making a more transparent supply chain management system. With the help of AI and ML, the future of food industries is completely based on smart farming, robotic farming, and drones.	
Blockchain technology MI-5	<p>Blockchain technology is an advanced database mechanism that allows transparent information sharing within a business network. A blockchain database stores data in blocks that are linked together in a chain. The data is chronologically consistent because you cannot delete or modify the chain without consensus from the network. As a result, you can use blockchain technology to create an unalterable or immutable ledger for tracking orders, payments, accounts, and other transactions. The system has built-in mechanisms that prevent unauthorized transaction entries and create consistency in the shared view of these transactions.</p> <p>Food supply blockchains can be used to allow trading partners to protect their business operations and the supply chain while instituting better performance, control, and systems security. In more basic terms, a blockchain is a digital “record”, maintained by a network of multiple computers.</p>	<p>Amazon (2023). What Is Blockchain Technology?</p> <p>Scott Haskell (2022). Blockchain Technology in the Food Industry. USA: <i>Michigan State University</i>.</p>
Data space MI-5	<p>What is European data space? The common European data space for cultural heritage accelerates the digital transformation of Europe's cultural sector and fosters the creation and reuse of content in the cultural and creative sectors.</p> <p>The evolution of novel data processing technologies is fast paced and the volume of data being generated is growing by the second. The food industry stands to benefit from this and has been testing and adapting various routes for using data science techniques to enhance the production of safe and healthy foods.</p>	<p>The European Commission - Shaping Europe's digital future (2022). A European Strategy for data (2022).</p> <p>Sandrine Pigat (2023). The evolution of data processing technologies in the food industry. Ireland: <i>Creme Global</i>.</p>

Suggested entry	Suggested abstract from a specific source	Suggested references
Decision support system or toolbox, or toolkit (food, agriculture) MI-5	An agricultural decision support system (ADSS) can be defined as a human-computer system which utilizes data from various sources, aiming at providing farmers with a list of advice for supporting their decision-making under different circumstances. One of the most representative characteristics of an ADSS is that it does not give direct instructions or commands to farmers.	Zhai Z. et al. (2020) . Decision support systems for agriculture 4.0: Survey and challenges.
	This toolbox has been developed to collate different tools and methods that can be used for food system analysis. It is specifically based on systems thinking for food system analysis, with the aim to formulate actionable recommendations that can bring about systemic change. It describes both the process of a food system analysis, as well as a set of tools that can be used at different stages.	Posthumus (2021) . The Food Systems Decision-Support Toolbox.
Internet of Things MI-5	IoT is a network of devices that gather and convey data via the Internet. Internet of things (IoT) driven system can be used to support food systems by providing transparency, traceability and accountability, resulting in reduced food wastages and ensuring food quality from the stage of harvesting to the consumption.	Kaur, H. (2021) . Modelling internet of things driven sustainable food security system.
Cloud-based platforms MI-5	Cloud-based platforms transmit data via wireless connections and the internet to large, reliable servers for processing, then they transmit processed data (instructions or outputs) back to the system or device on the ground. Cloud computing offers access to huge amounts of data processing capacity and storage space to organizations that cannot justify the large up front and maintenance costs for physical servers. The introduction of cloud computing to the food industry has enabled it to analyse data to determine market sizes, consumer habits, optimized product strategies, consumer targeting, and marketing.	Pilkington, B. (2022) . Cloud-Based Platforms in the Food Industry.
Big Data MI-5	BD is defined as “a conglomeration of the booming volume of heterogeneous data sets, which is so huge and intricate that processing it becomes difficult, using the existing database management tools”. The advent of BD has the potential to improve the design of food supply chains, the relationship development among stakeholders, enhance customer service systems, and manage daily value-added operations. The application of BD can help food businesses become more	Rejeb, A. et al. (2022) . Big data in the food supply chain: a literature review.

Suggested entry	Suggested abstract from a specific source	Suggested references
	profitable by increasing their operational efficiencies, improving their potential economic gains, and optimizing their resource allocation.	

3.9 Miscellaneous

Suggested entry	Suggested abstract from a specific source	Suggested references
Capacity building MI-24	Capacity-building is defined as the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world.	The United Nations (2023) . Capacity building.
Citizen Science MI-24	Around the world ordinary people of all ages engage in citizen science—participating in projects in which volunteers and scientists work together to answer real-world questions. Much of this work is conducted close to home, sometimes in our own backyards or even in our living rooms and kitchens, with guidance from professional scientists and using established science protocols and tools. Regardless of the location and process, citizen science brings everyone into the important work of learning more about and protecting our planet.	National Geographic (2023) . Citizen_Science
	Citizen science is any activity that involves the public in scientific research and thus has the potential to bring together science, policy makers, and society as a whole in an impactful way. Through citizen science, all people can participate in many stages of the scientific process, from the design of the research question to data collection and volunteer mapping, data interpretation and analysis, and to publication and dissemination of results. Citizen science is also an approach of scientific work that may be used as a part of a broader scientific activity.	The EU Citizen Science Platform (2023) . Citizen science projects, resources, tools, training.
Climate change	Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.	United Nations (2023) .
	The climate change debate concerns the impact of human activity on the earth's temperature, as well as its impact on weather patterns, plant-life, wildlife, and human health. On one side of this controversial topic, most in the scientific	Academic Influence (2023) . Controversial topic: climate change.

Suggested entry	Suggested abstract from a specific source	Suggested references
	community believe that human activity is responsible for climate change. On the other side, some journalists, political leaders, and industry advocates argue either that global climate change is not actually occurring, or that shifts in climate are natural meteorological patterns unrelated to human activity. Some also argue that economic imperatives should be prioritized over environmental concerns. The ongoing public controversy over climate change makes this a popular persuasive essay topic.	
Co-creation process	Co-creation is a process in which several actors work together to design and implement solutions that create value for the parties involved. Deciding on who should be involved is a cornerstone of a co-creation project and must be planned, controlled and implemented.	Interreg CENTRAL EUROPE Programme (2020) . The I-Care Smart Co-Creation Handbook
Ecosystem Services	Ecosystem Services are the direct and indirect contributions ecosystems (known as natural capital) provide for human wellbeing and quality of life. This can be in a practical sense, providing food and water and regulating the climate, as well as cultural aspects such as reducing stress and anxiety.	Scotland's Nature Agency - NatureScot (2022) . What are Ecosystem Services?
Environment (food)	Food environment refers to the physical, economic, political and socio-cultural context in which consumers engage with the food system to make their decisions about acquiring, preparing and consuming food.	The European Public Health Alliance (2019) . What are 'food environments'?
	Food environments are places where food is acquired or consumed. As such, the food environment represents the nexus of interactions between the individual and those aspects of the food system that are related to food production, processing, transportation and retail, and food disposal and waste.	The Food and Agriculture Organisation (2019) . Sustainable healthy diets guiding principles.
	The food environment is a critical place in the food system to implement interventions to support sustainable diets and address the global syndemic of obesity, undernutrition, and climate change, because it contains the total scope of options within which consumers make decisions about which foods to acquire and consume.	Downs M. S. et al. (2020) . Food environment typology: advancing an expanded definition, framework, and methodological approach for improved characterization of wild, cultivated, and built food environments toward sustainable diets.

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Global warming	Global warming is the long-term warming of the planet's overall temperature. Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels.	National Geographic (2023) .
	The global warming controversy is an ongoing dispute about the effects of humans on global climate and about what policies should be implemented to avoid possible undesirable effects of climate change.	ScienceDaily (2023) . Global warming controversy.
Green House Gases MI-34	A gas that contributes to the natural greenhouse effect. The Kyoto Protocol covers a basket of six greenhouse gases (GHGs) produced by human activities: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride. Annex I Parties' emissions of these gases taken together are to be measured in terms of carbon dioxide equivalents on the basis of the gases' global warming potential. An important natural GHG that is not covered by the protocol is water vapour.	The European Environmental Agency - European Environment Information and Observation Network (2023) . Term: greenhouse gas.
	Based on the new data, global food waste contributes 10% of our global greenhouse gas emissions, not the 8% that was previously thought, and equivalent to nearly twice the annual emissions produced by all the cars driven in the US and Europe. Food waste's high emissions are largely due to food production using a huge amount of land, water and energy.	Lilian Gikandi (2021) . 10% of all greenhouse gas emissions come from food we throw in the bin. World Wide Fund For Nature - WWF
Index (food)	The Food and Agriculture Organisation Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities.	The Food and Agriculture Organisation (2023) . Food and Agriculture Organisation Food Price Index.
	The Global Food Security Index (GFSI) was designed and constructed by Economist Impact and is supported by Corteva Agriscience. The Economist Impact team exercises full and final editorial control over all content, including data gathering, analysis and forecasting. The 2022 GFSI is the 11th edition of the index. Economist Impact updates the model annually to capture year-on-year changes in structural factors impacting food security.	https://impact.economist.com/sustainability/project/food-security-index/
	The Healthy Food Environment Policy Index (Food-EPI) is the European Union assessment of EU-level policies influencing food environments and priority actions to create healthy food environments in the EU	Policy Evaluation Network - PEN (2021) . The Healthy Food Environment Policy Index (Food-EPI): European Union.

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	<p>The Nutri-Score is a front-of-pack label that provides user-friendly information on the nutritional quality of food and beverages, using five different colours to classify food products into five categories: from category A (dark green), indicating higher nutritional quality, to category E (dark orange), indicating lower nutritional quality. This rating system was developed to help guide consumers towards healthier food choices and thus prevent a wide range of nutrition related chronic diseases. The score for a given food or beverage is calculated by allocating points for the content per 100 g (or per 100 mL for beverages) of energy, saturated fatty acids, sugars, sodium, dietary fibres, and proteins, and of fruits, vegetables, legumes, and nuts (and, since 2019, olive, rapeseed, and nut oils).</p>	<p>The World Health Organisation (2021). IARC Evidence Summary Brief No. 2.</p>
Labs, Policy labs	<p>An open and collaborative space where students can show their inventive side and develop expertise in the practice of solving public problems. Courses from the Lab are designed to ensure that students have the opportunity to tackle socially relevant and topical policy issues, understand the interests of stakeholders, and develop concrete solutions with a method of policy design based on an approach grounded in the field. The Lab engages a large ecosystem of actors, from the public and private sectors and the civil society, and encourages them to collaborate in order to address a practical policy issue relevant to the common good.</p>	<p>Sciences Po (2023). What is the policy lab?</p>
	<p>Policy Labs are multidisciplinary government teams developing public policies and public services using innovation methods to engage citizens at multiple stages of the development process.</p> <p>Policy Labs is not the only one of its kind, we suggest that these types of Labs manifest characteristics identified in previous studies for influencing the policymaking process; namely: providing a forum for open, honest conversations around a policy topic; creating new networks, collaborations and partnerships between academics and policymakers; synthesising available evidence on a policy topic in a robust and accessible format; and providing timely access to evidence relevant to a policy issue. We recognise the limitations of measuring and evaluating how these Labs change policy in the long-term and recommend viewing the Policy Lab as part of a process for</p>	<p>BEDA Insight Forum (2017) Policy Labs: What is the future of design for policy-making?</p> <p>Krapels-Hinrichs S. et al. (2020). Using Policy Labs as a process to bring evidence closer to public policymaking: a guide to one approach.</p>

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	<p>engaging evidence and policymaking and not an isolated activity. This process serves to build a coalition through participation of diverse communities (thereby establishing 'trust'), work on the language and presentation of evidence (thereby enabling effective 'translation' of evidence) and engage policymakers early to respond when policy windows emerge (thereby taking into account 'timing' for creating policy action).</p>	
Labs, Living labs	<p>Within the living lab literature, there are a number of theorists that have set the scene when it comes to defining what living labs are.</p> <p>While there is no standard definition of the concept of a Living Lab, it has been largely defined as innovation networks based on the philosophy of user-driven, open innovation. Creating innovative services that have market impact is not a straightforward process and for SMEs, the innovation process can be even harder to accomplish. Some SMEs might not have the resources, or all the needed competencies, to carry out the innovation activities. Living Labs strive to support the innovation process for all involved stakeholders, from manufacturers to end-users, with special attention to SMEs and a focus on potential users.</p> <p>Living Labs is a concept used as part of the stakeholder engagement process in our project in order to test in a real life setting new products or services. The CIRC4Life Living Lab is used both as a methodological approach towards the development of Circular Economy Business Models, and as a process of engaging stakeholders in a systematic way.</p>	<p>Project CO-VAL (2019). Defining Living Labs (D5.1 Report on cross-country comparison on existing innovation and living labs).</p> <p>Berytech (2021). Living Labs: exploring user-centered, open innovation.</p> <p>Project CIRC4Life (2020). What are Living Labs and how are they being implemented in the CIRC4Life project?</p>
Nature-based solution (NBS)	<p>Nature-based solutions (NBS) are inspired and supported by nature, they are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience; such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions. NBS must benefit biodiversity and support the delivery of a range of ecosystem services</p>	<p>The European Commission (2020). Nature-based solutions: Horizon 2020 NBS research projects tackle the climate and biodiversity crisis.</p>
Noncommunicable disease	<p>Noncommunicable diseases (NCDs), also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. The main types of NCD are cardiovascular</p>	<p>The World Health Organisation (2022). Noncommunicable diseases.</p>

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	diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.	
Open Science	Open science consists in the sharing of knowledge, data and tools as early as possible in the Research and Innovation (R&I) process, in open collaboration with all relevant knowledge actors, including academia, industry, public authorities, end users, citizens and society at large.	The European Commission - Horizon Europe Programme (2021) . Horizon Europe, open science -Early knowledge and data sharing, and open collaboration.
Responsible Research and Innovation (RRI)	The European Commission defines Responsible Research and Innovation (RRI) as an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation.	The European Commission (2020) . Institutional changes towards responsible research and innovation.
Safety (food) MI-39	Access to sufficient amounts of safe and nutritious food is key to sustaining life and promoting good health. Unsafe food containing harmful bacteria, viruses, parasites or chemical substances causes more than 200 diseases, ranging from diarrhoea to cancers. It also creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and the sick. Good collaboration between governments, producers and consumers is needed to help ensure food safety and stronger food systems.	The World Health Organisation (2022) . Food safety.
Sovereignty (food)	Food sovereignty deeply cares for the territory at a smaller scale and aspires at decoupling food – essential need for human beings – from market dynamics. Food sovereignty is about human beings having direct, democratic control over the most important elements of their society – how we feed and nourish ourselves, how we use and maintain the land, water and other resources around us for the benefit of current and future generations, and how we interact with other groups, peoples and cultures. (La via Campesina, 2018).	Clara Garrone (2022) . Food Sovereignty: back to basics.
	Food Sovereignty offers itself as a process of building social movements and empowering peoples to organise their societies in ways that transcend the neoliberal vision of a world of commodities, markets and selfish economic actors. There is no one-size-fits-all solution to the myriad of complex problems we face in today's world. Instead, Food Sovereignty is a process that adapts to	La Via Campesina (2018) . Food sovereignty now! A guide to food sovereignty.

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	the people and places where it is put in practice. Food Sovereignty means solidarity, not competition, and building a fairer world from the bottom up.	
Stakeholders (or actors, or agents)	Stakeholders in the food industry are extensive. They can range from individual consumers and industry bodies to primary producers and food manufacturers. The list continues to include importers and retailers, public health organizations, consumer advocacy organizations, community groups, and all levels of government.	Borealis (2021) . Engaging with food industry stakeholders – Guiding Principles.
Stakeholders (multi) MI-2	Multi-stakeholder initiatives bring together government, civil society, and the private sector to become mutually responsive to each other to address complex development challenges that impact people and society as a whole. In doing so, multi-stakeholder initiatives come to complement the role of each stakeholder: acting like an organization but thinking like a movement.	Project multi-act H2020 Programme ID: 787570 (2021) . What are multi-stakeholder research initiatives and why do we need them?
Technology readiness level (TRL)	Technology Readiness Levels (TRLs) are a method for estimating the maturity of technologies. The use of TRLs enables consistent, uniform discussions of technical maturity across different types of technology. A technology's readiness level is determined during a Technology Readiness Assessment that examines program concepts, technology requirements, and demonstrated technology capabilities. TRLs are based on a scale from 1 to 9 with 9 being the most mature technology	ENTSO-E (2023) . Technology Readiness Levels.
System thinking	Systems thinking, is based on the idea of interrelatedness of environmental and economic decision-making. In the systems thinking model, the common (“2D”) approach to imagining action and reaction, cause and effect as a linear chain of events, each of them with a clear beginning and end (...), is replaced by an interactive (“3D”) space of activity where any action is simultaneously connected to a multitude of other actions in the same space, connected through feedback loops. In the model, feedback loops replace the notion of singular cause-and-effect-chains with morphing networks of complex change impulses that reflect back on each other.	Fabian N. et al. (2022) . Launch: Solving the Climate Puzzle - How Systems Thinking Supports Environmental Decision-making. Germany: Friedrich Naumann Foundation for Freedom



4. WEBLIOGRAPHY

4.1 Specific to the European Union

The European Union portal on food (2023).

Retrieved from https://food.ec.europa.eu/safety_en

The European Union portal on Food and Feed Information Portal Database (2023).

Retrieved from <https://ec.europa.eu/food/food-feed-portal/screen/home>

The European Union portal on agriculture (2023).

Retrieved from https://european-union.europa.eu/priorities-and-actions/actions-topic/agriculture_en

General Food Law (2023).

Retrieved from https://food.ec.europa.eu/horizontal-topics/general-food-law_en

Food 2030 pathways for action – factsheets (2020).

Retrieved from https://research-and-innovation.ec.europa.eu/food-2030-pathways-action-factsheets_en

The common agricultural policy at a glance (1962).

Retrieved from https://agriculture.ec.europa.eu/common-agricultural-policy/cap-overview/cap-glance_en

The European Bioeconomy Strategy (2012)

Retrieved from https://research-and-innovation.ec.europa.eu/bioeconomy/bioeconomy-strategy_en

The European Pillar of Social Rights (2017).

Retrieved from <https://www.epr.eu/what-we-do/policy-analysis/european-pillar-of-social-rights/>

The Small Farmers Scheme (2017).

Retrieved from https://agriculture.ec.europa.eu/system/files/2018-10/small-farmers-scheme_en_0.pdf

The European Strategy for Plastics in a Circular Economy (2018).

Retrieved from <https://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy.pdf>

Farm to Fork Strategy (2019)

Retrieved from https://food.ec.europa.eu/horizontal-topics/farm-fork-strategy_en

A EU Green Deal 'Striving to be the first climate-neutral continent' (2019).

Retrieved from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en

A Union of Equality: Gender Equality Strategy 2020-2025 (2020).

Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0152>

Biodiversity Strategy for 2030 (2020).

Retrieved from https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en

The European Union Adaptation Strategy (2021).

Retrieved from https://climate-adapt.eea.europa.eu/en/eu-adaptation-policy/strategy/index_html

Rural development – long-term vision for rural areas (2021).

Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3162



Single-use plastics Directive (2021).

Retrieved from https://environment.ec.europa.eu/topics/plastics/single-use-plastics_en

Towards Zero Pollution Action Plan for Air, Water and Soil, the Circular Economy Action Plan (2021)

Retrieved from <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0400&qid=1623311742827>

A renewed Sustainable Blue Economy Strategy (2021)

Retrieved from https://oceans-and-fisheries.ec.europa.eu/ocean/blue-economy/sustainable-blue-economy_en

European Climate Law (2021)

Retrieved from https://climate.ec.europa.eu/eu-action/european-green-deal/european-climate-law_en

A Europe fit for the digital age - Empowering people with a new generation of technologies (2020).

Retrieved from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age_en

A stronger Europe in the world - Reinforcing our responsible global leadership (2020).

Retrieved from https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world_en

Healthier Together - EU Non-Communicable Diseases Initiative (2022).

Retrieved from https://health.ec.europa.eu/system/files/2022-06/eu-ncd-initiative_publication_en_0.pdf

The New European Bauhaus (2021)

Retrieved from https://new-european-bauhaus.europa.eu/index_en

4.2 Specific to the United Nations

SDG 11 - Sustainable cities and communities (2015).

Retrieved from <https://sdgs.un.org/goals/goal11>

The New Urban Agenda (2016).

Retrieved from <https://habitat3.org/the-new-urban-agenda>

Food Systems Summit Dialogues (2021).

Retrieved from <https://www.un.org/en/food-systems-summit/dialogues>

The Glasgow food and climate declaration (2021).

Retrieved from <https://www.glasgowdeclaration.org/>