Setting the Scene:

Sustainable Cities and Communities (SDG 11)
in a Multi-level Governance Perspective:
What role for **local public social services** and SDGs?

Plus: A focus on Good Health and Well-Being (SDG 3)

Dr. Serdar Türkeli
Researcher | Lecturer | Coordinator
e-mail: turkeli@merit.unu.edu

United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT) | School of Business and Economics | Maastricht University
The Netherlands

OUTLINE

A Multiple Value Local Policy Agenda:
<u>Why</u>, What & How to Govern?

1. Cities are **inter-generational** (~3-4 active generations)

2. Cities do not only have **sociology** but also **ecology** (+animals, environment, infrastructure, architecture…)

3. Cities are **everyday life** (e.g. quality of employment, safety, housing, transport, energy, health, environment…)

4. Cities are **the locus of community-based solidarity, of the third sector besides bureaucracy and markets,** and **the initial source of (to be accumulated) issue(s)**, if not intervened.

5. Cities are **the new intellectual battlefields** between cosmopolite progressivism and populism for **local policy designs and delivery.**

A Multiple Value Local Policy Agenda:
Why, <u>What</u> & How to Govern?

6. Cities are receiving **public funds**, yet to what extent these investments are **multiple value creation (MVC) investments** that are **meaningful** for multiple stakeholders, and thus are channeled to **the core issues and impactful services** is highly debatable.

7. **Social** and **environmental budget constraints** are observable, thus, **limited improvements in local public social and environmental services**.

8. **Data, peer review, audits, consultations with different audiences (e.g. businesses {incumbents, startups}, citizens {elderly, students}) and policy communications with different social and private sector audiences,** would help distinguish the right (difficult) ways from the wrong (easy) ways in creating support policies and instruments for **experimenting with multiple value propositions, creation and delivery.**

A Multiple Value Local Policy Agenda:
Why, What & <u>How</u> to Govern?

9. Developing the **governance** (transactions, arrangements, societal coordination, governance…) for the advancement of a theme X by relevant **stakeholders,** which is sensitive to **society** needs and demands, within a multi-actor improvement perspective (see Diepenmaat, Kemp, Velter, 2020).

9. Integrating **society** in issues, **policies** and activities in order to integrate **citizens' interests** and **values** and to increase the **quality, relevance**, **social acceptability** and **sustainability outcomes** in various fields of activity (see RRI2Scale*), societal system of innovation (see Turkeli and Wintjes, 2014).

*RRI2SCALE – Responsible Research and Innovation for Intelligent Cities , Dr. Rene Wintjes, Dr. Serdar Turkeli, H2020 Science with and for Society (Swafs) Ongoing UNU-MERIT | UM

A Multiple Value Local Policy Agenda:
Why, What & <u>How</u> to Govern?

11. Long term plan with **quantitative and qualitative** vision, mission, goals and targets, milestones.
12. **Multiple value creation via policy support for experimentations** for multi-stakeholder/multiple value creation projects.
13. **Experimentation:** Tolerance to difficulties and failures, in multiple equilibria of bureaucratization, marketization and humanization of local services.
14. Social Public Service **(co-)designs** & actions targeting **unemployment.**
15. Community building for emergency cases, especially for **children** and **people in poverty.**
16. Required Complementarities: **Environmental (Circular City).**
17. Required Complementarities: **Digital (Smart City).**
18. Social crowd-funding/fundraising, **community and societal financial capital formation.**
19. **Legal rights** and **humanistic wisdom**.
20. The contracy rest is *unethical* and *destructive.*

A Multi-Level Agenda: The Current Situation

The 2030 Agenda recognizes the key role of <u>**cities**</u> for sustainable development with a dedicated SDG for Sustainable Cities and Communities (SDG#11).

One of the first implementing agenda of the 2030 Agenda, **the New Urban Agenda** is also approved by the **United Nations** in 2016.

With **the Urban Agenda for the EU**, **The European Union** is also committed to support and boost the collective potential of European cities (Source: https://ec.europa.eu/futurium/en/node/1829)

<u>**Cities**</u> are socio-economic metabolisms, where most citizens live, where the biggest share of the GDP is generated.

Issue point: It is hard to collect data, monitor and evaluate the economic, social and environmental sustainability achievements at local scale, and it is even harder to quantify cities' achievements, spillovers and their overall contributions at country level.

Ways Forward with Data, Monitoring and Evaluation

- The **URBAN2030** – jointly developed **by the Joint Research Centre (JRC) and the Directorate General for Regional and Urban Policy of the European Commission** – aims at supporting local and regional authorities in measuring their achievement towards a sustainable development in a comparable way. e.g. Assessing the current city situation, highlighting the major challenges and priorities, and identifying the already available harmonized indicators at local scale, which are used for the monitoring, relying on existing datasets produced by several providers and institutions.

- At European level, data and indicators provided by the **Urban Data Platform of the European Commission** as the basis for benchmarking and assessments.

- **Urban Data Platform Plus (UDPplus)** is a joint initiative of the Joint Research Centre and the Directorate General for Regional and Urban Policy (DG REGIO). As a key component of the [Knowledge Centre for Territorial Policies](#), it provides access to information on the status and trends of **cities** and **regions** and to EU supported urban and territorial development strategies.

- The overview of the existing and potential data will help local authorities in including the assessment and monitoring phase of their strategies for the achievement of the SDGs and for the preparation of the **Voluntary Local Reviews (VLRs).**

Source: https://ec.europa.eu/knowledge4policy/territorial/topic/urban_en

Local Public Social Service(s) (Co-Designs) w.r.t. SDG 11 Targets:

1. Annual mean levels of fine particulate matter (e.g. PM2.5 and PM10) in cities (population weighted)
2. ***Average share of the built-up area of cities that is open space for public use for all, by sex, age and persons with disabilities**
3. Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services
4. Number of countries with national and local disaster risk reduction strategies
5. ***Number of deaths, missing persons and persons affected by disaster per 100,000 people**
6. ***Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically**
7. Proportion of financial support to the least developed countries that is allocated to the construction and retrofitting of sustainable, resilient and resource-efficient buildings utilizing local materials
8. Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030
9. ***Proportion of persons victim of physical or sexual harassment, by sex, age, disability status and place of occurrence, in the previous 12 months**
10. ***Proportion of population living in cities that implement urban and regional development plans integrating population projections and resource needs, by size of city**
11. ***Proportion of population that has convenient access to public transport, by sex, age and persons with disabilities**
12. ***Proportion of urban population living in slums, informal settlements or inadequate housing**
13. Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities
14. Ratio of land consumption rate to population growth rate
15. Total expenditure (public and private) per capita spent on the preservation, protection and conservation of all cultural and natural heritage, by type of heritage (cultural, natural, mixed and World Heritage Centre designation), level of government (national, regional and local/municipal), type of expenditure (operating expenditure/investment) and type of private funding (donations in kind, private non-profit sector and sponsorship)

A High-Income Perspective

SDG 11 Indicator	OBS	MEAN	STD.DEV.	MIN	MAX
Concentration PM2.5 (microgr/m3)	43	16.5	5.06	5.51	30.18
Emission of nitrogen oxides (kg/km2)	43	7.94	6.1	2.45	31.53
Satisfaction affordable housing (%)	40	24.93	15.88	3	66
Housing cost overburden rate in urban areas (%)	45	11.65	6.7	1.5	43.7
Recharging stations (per 10,000 people)	44	0.99	1.52	0.03	6.96
Satisfaction public transport (%)	40	73.33	14.92	30	97
Satisfaction cultural facilities (%)	37	39	16.59	13	80
Sights & landmarks (per 100,000)	45	159.56	161.08	11	795
Museums (per 100,000)	45	81.24	70.05	9	311
Concerts & shows (per 100,000)	45	45.69	63.87	2	333

Source: Lafortune et al. 2019

	SDG1: No poverty	SDG2: No Hunger	SDG3: Good Health and Well-Being	SDG4: Quality Education	SDG5: Gender Equality	SDG6: Clean Water and Sanitation	SDG7: Affordable and Clean Energy	SDG8: Decent Work and Economic Growth	SDG9: Industry, Innovation and Infrastructure	SDG10: Reduced inequalities	SDG11: Sustainable Cities and communities	SDG12: Responsible consumption and production	SDG13: Climate Action	SDG15: Life on Land	SDG16: Peace, Justice and Strong Institutions
Amsterdam															
Antwerp															
Athens															
Barcelona															
Berlin															
Bordeaux															
Bratislava															
Brussels															
Bucharest															
Budapest															
Copenhagen															
Dublin															
Eindhoven															
Frankfurt															
Hamburg															
Helsinki															
Lisbon															
Ljubljana															
London															
Luxembourg															
Lyon															
Madrid															
Marseille															
Milan															
Munich															
Nicosia															
Nuremburg															
Oslo															
Paris															
Porto															
Prague															
Riga															
Rome															
Rotterdam															
Sofia															
Stockholm															
Tallinn															
The Hague															
Turin															
Valletta															
Vienna															
Vilnius															
Warsaw															
Zagreb															
Zurich															

Green = "SDG achieved". Yellow = "Challenges remain". Orange = "Significant challenges remain". Red = "Major challenges remain". Grey = "No data available".

Source: Lafortune et al. 2019

Desired Metrics
&
Extended role of integrated multiple value
local
public
social
and
environmental
services

Table 2.1 Major data gaps

SDG	DESIRED METRICS
SDG 1: No poverty	Homelessness
SDG 2: No Hunger	Food loss and food waste More comparable overweight and obesity data
SDG 3: Good Health and Well-Being	Affordability of care Gap in health outcomes by income and area of residence
SDG 4: Quality Education	Student performance Gap in education outcomes by income and area of residence
SDG 5: Gender Equality	Violence against women Gender gap in minutes spent doing unpaid work Share of women in local assemblies
SDG 6: Clean Water and Sanitation	Quality of drinking water Imported groundwater depletion – scarcity weighted (international spillover)
SDG 7: Affordable and Clean Energy	More comparable data on renewable energy use Affordability of electricity
SDG 8: Decent Work and Economic Growth	Imported trade in fatal accidents (international spillover)
SDG 9: Industry, Innovation and Infrastructure	Gaps across population groups in access to infrastructures
SDG 10: Reduced Inequalities	Income and wealth inequalities
SDG 11: Sustainable Cities and Communities	Access to safe public transports Accessibility of public transports and other services for handicapped people
SDG 12: Responsible Consumption and Production	Production based SO_2 emissions Net imported SO_2 emissions (international spillover) Reactive nitrogen footprint Net imported reactive nitrogen emissions (international spillover)
SDG 13 : Climate Action	Climate change vulnerability Imported CO_2 emissions (international spillover)
SDG 14: Life Below Water	Impact of high-seas and cross border fishing (coastal cities) Protected areas by level of protection (coastal cities) Impact of urban consumption on fisheries and marine's ecosystems (international spillover)
SDG 15: Life on Land	Access to green spaces
SDG 16: Peace, Justice and Strong Institutions	Access to justice Civic participation
SDG 17: Partnerships for the Goals	Cities' international cooperation projects and initiatives

Interconnectivity of SDG 3

To create the framework in which individuals can take responsibility over their own health and well-being other SDGs create important building blocks such as reducing poverty (SDG 1) or high quality education (SDG 4) to create health literacy

Simultaneously healthy populations and universal health coverage **establish the groundwork for economic prosperity, reducing inequalities** (SDG 10) and promote peaceful and inclusive societies (SDG 16)

Similarly, adequate, accessible and high quality social services are relevant to a vast array of aspects, especially for at risk individuals, that contribute towards achieving SDG 3 without directly providing health information or services

In turn these services also help to achieve a variety of outcomes which result from a population in better health

Viktoria Steinbeck

Social Services and SDG 3

Reproductive, maternal, newborn & child health
- Provide healthy and varied food options especially for children & pregnant women
- Prenatal information
- Vaccination information
- Family planning support
- Teenage sexual health education

Communicable diseases
- Hygiene education (general and at risk population eg CMV in pregnant women)
- Sexual health education
- Homelessness and substance abusers support and education
- Social distancing (Coronavirus)
- Provide testing facilities & information
- Treatment

Non-communicable diseases and mental health
- Lifestyle changes to prevent chronic illnesses (movement, food, tobacco…)
- Elderly (mobility, sensory impulses…)
- Youth (psychological, …)
- Loneliness (co-living, community)
- Suicide prevention

Capacity and access to care
- Universal access to healthcare, information and education
- Sufficient financing for health services and multi-professional collaboration
- Data collection and early warning systems

Measuring SDG 3

Reproductive, maternal, newborn & child health
- Under 5 mortality rate from preventable causes
- Maternal mortality/rate of complications during pregnancy
- Immunisation rate
- Self-rated access to contraception
- Adolescent fertility

Communicable diseases
- Incidence of HIV, tuberculosis …
- Self reported access to information to prevent communicable diseases

Non-communicable diseases and mental health
- Probability of dying from one of the 4 main non-communicable diseases (cardiovascular diseases, cancers, chronic respiratory disease, diabetes)
- Suicide rate
- Rate of mental health problems

Capacity and access to care
- Ratio of doctors/nurses/healthcare beds … per 10,000 people
- Share of GDP used for health
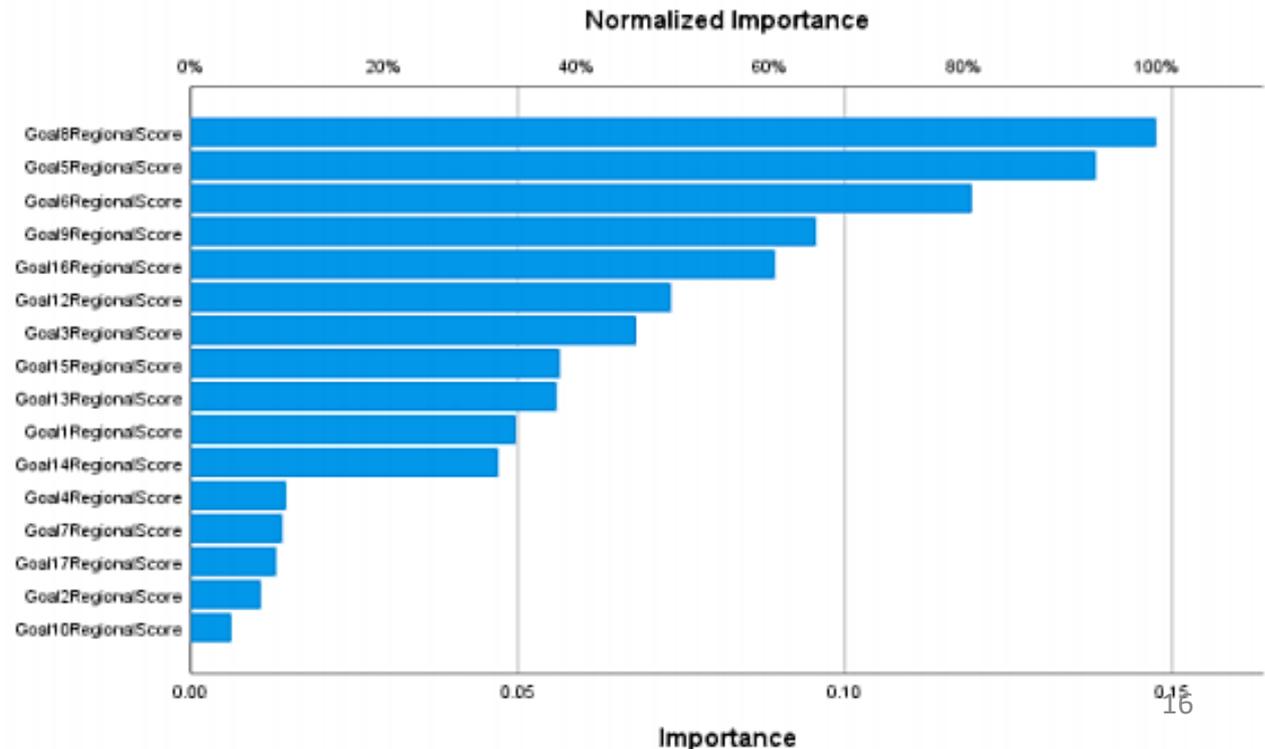- Share of health funding used for prevention

Viktoria Steinbeck

SDG#11

Türkeli S. (2020) Complexity and the Sustainable Development Goals: A Computational Intelligence Approach to Support Policy Mix Designs. Journal of Sustainability Research 2020;2(1):e200006.

Independent Variable Importance

	Importance	Normalized Importance
Goal 1 Regional Score	.050	33.7%
Goal 2 Regional Score	.011	7.3%
Goal 3 Regional Score	.068	46.1%
Goal 4 Regional Score	.015	9.9%
Goal 5 Regional Score	.138	93.7%
Goal 6 Regional Score	.119	80.9%
Goal 7 Regional Score	.014	9.5%
Goal 8 Regional Score	.148	100.0%
Goal 9 Regional Score	.096	64.8%
Goal 10 Regional Score	.006	4.2%
Goal 12 Regional Score	.073	49.8%
Goal 13 Regional Score	.056	37.9%
Goal 14 Regional Score	.047	31.9%
Goal 15 Regional Score	.056	38.3%
Goal 16 Regional Score	.089	60.5%
Goal 17 Regional Score	.013	8.9%

Interactions among all SDGs

Table 5. Four-Value Fuzzy Set Calibration as Input to Matrix of Direct Influences (MDI) *.

NI/P > v	SDG 1	SDG 2	SDG 3	SDG 4	SDG 5	SDG 6	SDG 7	SDG 8	SDG 9	SDG 10	SDG 11	SDG 12	SDG 13	SDG 14	SDG 15	SDG 16	SDG 17
SDG1	0	2	2	3	1	3	3	1	1	3	2	1	1	1	3	1	2
SDG2	1	0	2	1	1	2	2	1	2	1	1	1	2	1	2	3	3
SDG3	1	1	0	2	2	1	2	1	2	3	2	2	2	1	1	3	2
SDG4	3	1	1	0	2	2	3	1	1	3	1	1	1	1	2	2	2
SDG5	1	3	2	2	0	2	2	3	1	3	3	1	3	1	3	2	2
SDG6	1	2	2	1	3	0	2	3	2	1	3	1	2	1	1	2	1
SDG7	3	3	1	2	1	1	0	2	1	1	1	1	1	1	2	1	2
SDG8	1	1	1	1	3	2	1	0	1	2	3	1	2	2	3	3	3
SDG9	1	2	1	2	1	2	2	3	0	3	2	2	1	3	3	3	2
SDG10	1	2	1	1	2	2	2	1	1	0	1	1	1	3	1	3	2
SDG11	2	2	1	2	3	3	2	3	1	1	0	1	3	2	2	3	1
SDG12	2	3	3	3	3	3	3	3	3	2	2	0	3	2	3	3	1
SDG13	1	1	2	1	2	2	1	1	2	3	2	3	0	2	3	3	3
SDG14	1	2	1	1	1	1	1	1	1	3	1	1	1	0	1	1	1
SDG15	1	1	2	2	3	1	1	3	1	3	2	2	3	1	0	1	3
SDG16	2	1	1	1	2	2	2	2	1	3	2	1	1	2	2	0	1
SDG17	1	2	1	2	2	2	1	2	2	2	1	1	3	2	2	2	0

* NI: Normalized Importance; P: Predicted; 3 denotes, strong influence; 2, moderate; and 1, weak influence.

Source: (Türkeli , 2020)

Key References

Türkeli, S., & Wintjes, R. (2014). *Towards the societal system of innovation: The case of metropolitan areas in Europe* (No. 040). United Nations University-Maastricht Economic and Social Research Institute on Innovation and Technology (MERIT).

Kemp, René, et al. "The humanization of the economy through social innovation, Paper for SPRU 50th anniversary conference." (2016).

Kemp, René & Ramani Shyama (23 November 2018) Steering the course of innovation – towards sustainable development Link: https://www.merit.unu.edu/steering-the-course-of-innovation-towards-sustainable-development/

Guillaume Lafortune, Kees Zoeteman, Grayson Fuller, Rens Mulder, John Dagevos and Guido Schmidt-Traub. (2019). The 2019 SDG Index and Dashboards Report for European Cities (prototype version). Sustainable Development Solutions Network (SDSN) and the Brabant Center for Sustainable Development (Telos).

Diepenmaat, H., Kemp, R., & Velter, M. (2020). Why Sustainable Development Requires Societal Innovation and Cannot Be Achieved Without This. *Sustainability*, *12*(3), 1270.

Türkeli S. (2020) Complexity and the Sustainable Development Goals: A Computational Intelligence Approach to Support Policy Mix Designs. Journal of Sustainability Research. 2020;2(1):e200006. https://doi.org/10.20900/jsr20200006

Responsible Research and Innovation Ecosystems at Regional Scale for Intelligent Cities, Transport and Energy (RRI2SCALE) https://cordis.europa.eu/project/id/872526 UM-MERIT Partner

European Social Network (2019), Implementing the Sustainable Development Agenda: The Role of Social Services, last retrieved 21 March 2020: https://www.esn-eu.org/sites/default/files/publications/SDG3%20Policy_briefing_interactive.pdf

United Nations Economic and Social Council (2019), Special edition: Progress towards the Sustainable Development Goals, last retrieved 21 March 2020: https://undocs.org/E/2019/68

World Health Organisation (2020), SDG 3: Ensure healthy lives and promote wellbeing for all at all ages, last retrieved 21 March 2020: https://www.who.int/sdg/targets/en/

Setting the Scene:

Sustainable Cities and Communities (SDG 11)
in a Multi-level Governance Perspective:
What role for **local public social services** and SDGs?

Plus: A focus on Good Health and Well-Being (SDG 3)

Dr. Serdar Türkeli
Researcher | Lecturer | Coordinator
e-mail: turkeli@merit.unu.edu

United Nations University – Maastricht Economic and Social Research Institute on Innovation and Technology (UNU-MERIT) | School of Business and Economics | Maastricht University
The Netherlands