



**European Committee
of the Regions**

ENVE-VI-044

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OPINION

Smart cities: new challenges for a just transition toward climate neutrality – how to implement the SDGs in real life?

THE EUROPEAN COMMITTEE OF THE REGIONS

- recalls the importance of supporting climate objectives at the regional or city level, both when they are imposed directly as well as when they are derived from climate objectives at a higher level, with sound technical and scientific local transition paths towards the set objectives;
- highlights that next to the importance of imposing objectives, there is also a need to elaborate the necessary concrete measures, and the accompanying monitoring of these measures, so adjustments can be made as required. Setting up learning networks with others and with knowledge centres will improve this "learning process" of objectives versus measures;
- considers open data in standard formats to be a key tool to support the creation and development of smart cities and stresses that, along with these, the provision of "open components" (i.e. open API) will function as a significant building block for generating and multiplying smart city solutions at a higher speed and with higher flexibility;
- highlights the importance of bridging the digital gap and upskilling citizens to ensure smart communities do not segregate vulnerable citizens and to avoid any kind of social exclusion; also believes that it is important to promote energy efficiency and innovative technologies in social housing in order to combat energy poverty;
- highlights the potential of local zones where flexible and innovative regulatory tools or alternatives to regulation can be tested in a real world urban context, which can enable the exploration, and possible subsequent implementation, of sustainable innovations (e.g. in the housing domain); the city as "a learning machine" facilitates social learning and enables cooperation that can reduce social risks;
- highlights the importance of decentralisation in the fiscal domain, in order to facilitate the improved embedding of regional and (large) urban climate-oriented fiscal measures in the local context;
- points out that "smart water" solutions are of growing importance as a component of a complete smart cities policy aimed at climate-sustainable solutions;
- welcomes the frontrunner experience of some smart communities already moving towards circular economy solutions for buildings, mobility, products, waste management and in the planning and management of their territories and encourages the European Commission to further promote this aspect for all smart communities. These contributions will play a significant role in achieving the SDGs;

Rapporteur-General

Andries GRYFFROY (BE/EA), Member of the Flemish Parliament

Reference document

Letter of referral from the Finnish Presidency

Opinion of the European Committee of the regions – Smart cities: new challenges for a just transition toward climate neutrality – how to implement the SDGs in real life?

I. POLICY RECOMMENDATIONS

THE EUROPEAN COMMITTEE OF THE REGIONS

1. recognises that a smart city is a place where traditional networks and services are made more efficient with the use of digital and telecommunication technologies for the benefit of its inhabitants and business. Beyond the use of information and communication technologies (ICT) for better resource use and less emissions, a smart city involves a more interactive and responsive city administration that better services its population through smarter urban transport networks, upgraded water supply and waste disposal facilities, and more efficient ways to light and heat buildings that leaves no one behind; a smart city must also be a place where emphasis is put on creating inclusive and accessible structures for education and training, to develop the capacities and talents of the population and ensure their ability to participate in their community's development. Welcomes the increased focus of the UN Sustainable Development Goals precisely for this reason, namely that they draw attention to the fact that sustainability requires a holistic view of all aspects covered by them;
2. as already pointed out in the opinion on Multilevel governance and cross-sectoral cooperation to fight energy poverty (rapporteur: Kata Tüttö (HU/PES)¹, also flags up the need to factor in energy poverty when framing the various policies and considers that the clear acknowledgement of the fact that the social impact must also be taken into account when drawing up current and future energy and climate policies is one of the most important policy developments of recent years;
3. as already stated in the opinion on "Smart Cities and Communities – European Innovation Partnership" by Mr Ilmar Reepalu (SE/PES), reaffirms the importance of recognising the existing great variety of urban settlements, be they considered cities or not, and the importance of their relationship and complementarity with the surrounding rural territories; as already stated in the opinion on "Revitalisation of rural areas through Smart Villages" by Mr Enda Stenson (IE/EA), also reaffirms that "in common with the Smart City model, a Smart Rural Areas initiative should take a broad approach to development and innovation to include the following six dimensions:
 - a smart, innovative, entrepreneurial and productive economy;
 - improved mobility, with accessible, modern and sustainable transport networks;
 - an environmental and sustainable energy vision;
 - qualified and engaged citizens;
 - quality of life in terms of culture, health, safety and education;
 - an efficient, transparent and ambitious administration;"

¹ COR-2018-05877-00-01-AC-TRA (EN)

stresses, however, that an essential additional element of promoting 'smartness' must be to involve citizens and provide the conditions for them to develop their potentials, through education and support for research, innovation and social cohesion. This also requires for effective, transparent and reliable regulation of data protection and data use to be in place;

4. underlines the existing gap between regions, big cities, towns and small communities in terms of human and financial resources, skills and digitalisation. In this regard recalls that smart development strategies have to be adjusted to the scale of the community and the approach has to be fine-tuned to the specific situation of each of these, providing the infrastructure and support needed so that all groups have sufficient access to information and digital services;
5. points out that in its recommendations, issued after assessing the proposals for integrated National Energy and Climate Plans (NECPs) for the period 2021 to 2030 submitted by the EU Member States, the European Commission called for a greater level of ambition to ensure that the 2030 climate targets set by the Paris Agreement are met and that the transition to an economy with zero climate impact by 2050 is successful by making greater use of renewable sources and energy efficiency and by modernising the economy;
6. acknowledges that the scale of the challenge, and the cross-cutting nature of climate change, requires integrated, problem-based solutions that address multiple interacting and interfering dynamics and goals;
7. points out that it is important to establish a close link between the SDGs and 2021-2027 cohesion policy's policy objectives, particularly policy objective 2:"a greener, low carbon Europe, by promoting clean and fair energy transition, green and blue investment, the circular economy, climate adaptation and risk prevention", which could help deliver the SDGs through the specific objectives set out in the proposals for a regulation;
8. recognises that the transition towards a climate-neutral future, beyond the necessary adaptation to the effects of climate change and the decarbonisation of the energy, buildings and mobility sectors, also involves a transition towards a circular economy, the sustainable transformation of the agriculture and food systems, and the protection of ecosystems and biodiversity. To this end, the Committee supports the possible establishment of a European Climate Neutrality Observatory;
9. acknowledges the efforts of the Covenant of Mayors and the Clean Energy for EU Islands Initiative in mobilising local authorities, local businesses, local academia and educational institutions, as well as local community organisations, in the development of strategies for decarbonisation and calls on European local and regional authorities to sign up to, implement and monitor actions according to the Covenant of Mayors and the Clean Energy for EU Islands Initiative;
10. invites Member States to include the topic of smart communities in their National Energy and Climate Plans, recognising its great potential in terms of cost efficiency, energy efficiency and emission reduction;

On smart governance of smart communities

11. highlights that smart cities and communities provide an excellent opportunity to implement smart governance mechanisms and in doing so improve the capability of local authorities to take decisions in an increasingly complex environment;
12. highlights the need to accelerate the transition to a smart governance model at local and regional level by developing and implementing electronic services, which enable citizens to get access to a wider range of e-government services from a single account;
13. calls for the European Semester to be seen as an instrument for coordinating the EU's economic policies and as a forum in which the SDGs can be bolstered and the EU-wide delivery of the SDGs can be planned, monitored and assessed;
14. reaffirms the crucial role of multilevel governance in ensuring that local authorities can effectively tackle climate change and implement SDGs and considers smart cities as a strong enabling factor in this context;
15. acknowledges the use of taxation and public procurement as a tool to accelerate the market introduction of innovative and sustainable technologies, ensuring that their implementation is demand-driven and allows challenges to be met with local and decentralised solutions;
16. considers open data in standard formats to be a key tool to support the creation and development of smart cities and stresses that, along with these, the provision of "open components" (i.e. open API) will function as a significant building block for generating and multiplying smart city solutions at a higher speed and with higher flexibility;
17. recognises the potential of data generated by real-world user interfaces, such as citizens' mobile devices or smart meters and calls for developing comprehensive frameworks which integrate and use data generated by users for the purposes of smart governance and, at the same time, guarantee the required protection for the owners of the data;
18. recalls the importance of supporting climate objectives at the regional or city level, both when they are imposed directly as well as when they are derived from climate objectives at a higher level, with sound technical and scientific local transition paths towards the set objectives;
19. underlines that smart sustainable urban governance involves a shift from short-term, non-holistic policies towards long-term, systemic and learning-based approaches. This shift requires a strategic and continuous change management, applied to those existing urban governance structures that could lead to short-term and isolated decision-making;
20. highlights that next to the importance of imposing objectives, there is also a need to elaborate the necessary concrete measures, and the accompanying monitoring of these measures, so adjustments can be made as required. Setting up learning networks with others and with knowledge centres will improve this "learning process" of objectives versus measures;

Smart cities, towns and villages and the implementation of the SDGs

21. recalls that the CoR has been working intensely on the SDGs framework during the past years and that the recent opinions on "Sustainable Development Goals (SDGs): a basis for a long-term EU strategy for a sustainable Europe by 2030" by Mr Arnoldas Abramavičius (LT/EPP)² and on "Sustainable Europe by 2030: Follow-up to the UN Sustainable Development Goals, ecological transition and the Paris Agreement on Climate Change" by Ms Sirpa Hertell (FI/EPP)³ summarise the position of the Committee of the Regions;
22. reaffirms "the crucial need for jointly agreed tangible milestones, indicators, real time measuring of data related to climate change and SDGs of local municipalities, cities and regions to achieve the economic, ecological, social and cultural sustainability targets" as stated in the opinion on "Sustainable Europe by 2030: Follow-up to the UN Sustainable Development Goals, ecological transition and the Paris Agreement on Climate Change" by Ms Sirpa Hertell (FI/EPP)⁴. In this regard it highlights that smart cities and communities can be pioneers thanks to the smart technologies and data collection processes they are implementing;
23. reaffirms "the need for robust subnational climate data and the importance of the use of new technology like artificial intelligence to shed light on the climate actions by the local communities. In this regard it recalls the importance of making the most out of the Covenant of Mayors database and the opportunity of creating a bridge between local data and Nationally Determined Contributions through the establishment of Locally Determined Contributions"⁵. In this context it recalls once again the crucial importance of providing smart cities and communities with tools aimed at boosting their ability to collect and analyse data and to use it to improve the decision making processes;
24. considers a smart approach to be a key tool to achieve the targets related to SDG 11 on Sustainable cities and communities and SDG 13 on climate action;
25. acknowledges that smart cities must involve their citizens, so that they can actively participate in shaping their local context; human initiative, supported and supplemented with ICT, and local services adapted to citizens, can enable the identification and implementation of smart solutions and collective ideas that improve cities and enhance their sustainability, thereby building social capital and resilient communities while also having in mind the need to address Energy Poverty; in this regard highlights the importance of bridging the digital gap and upskilling citizens to ensure smart communities do not segregate vulnerable citizens and to avoid any kind of social exclusion; also believes that it is important to promote energy efficiency and innovative technologies in social housing in order to combat energy poverty;

² COR-2019-00239-00-00-AC-TRA (EN)

³ COR-2019-00965-00-01-PAC-TRA (EN)

⁴ COR-2019-00965-00-01-PAC-TRA (EN)

⁵ COR-2019-00965-00-01-PAC-TRA (EN)

Smart cities, towns and villages and the transition to a resource-efficient, climate neutral and biodiverse Europe

26. with a view to a smart transition, considers that it is strategic to develop specific programmes to boost people's digital skills with due regard for the various age groups and professional situations, drawing on experiences and good practices relevant to smart city projects;
27. welcomes the frontrunner experience of some smart communities already moving towards circular economy solutions for buildings, mobility, products, waste management and in the planning and management of their territories and encourages the European Commission to further promote this aspect for all smart communities. These contributions will play a significant role in achieving the SDGs;
28. notes that smart technologies play a key role in the implementation of the Clean Energy Package and the successful implementation of the clean energy transition. In this sense it points to smart cities and communities as a powerful tool to ensure these smart technologies are implemented in a consistent and harmonised way, making the most out of the existing potential synergies;
29. considers local energy communities to be a powerful resource to ensure a just clean energy transition and promotes the engagement of citizens in smart cities and communities and recalls in this context the suggestions it has made in its opinion on this subject⁶;
30. recalls that nature plays an important role in the SDGs related to poverty, hunger, health, well-being and sustainable cities. It highlights that smart cities and communities should consider nature-based solutions and green infrastructure as essential complementary policies to ensure the conservation of ecosystem services and biodiversity and to promote their sustainable use and limit land take;
31. recalls that the European long term strategy for climate neutrality by 2050 recognises the central role of smart technologies and cities in achieving climate neutrality;
32. recalls, in addition to increased budget climate mainstreaming, the calls for effective measures to gradually end subsidies to fossil fuels in order to create a level playing field for renewable energies, encourage behavioural change and generate the necessary resources to support a just transition;
33. notes that transition to climate neutrality creates quality jobs in circular economy, clean energy, food and agriculture sectors and calls on the EU to increase the coherence of climate objectives through cohesion policy, the European Social Fund (ESF+) and InvestEU;
34. points out that "smart water" solutions are of growing importance as a component of a complete smart cities policy aimed at climate-sustainable solutions;

⁶ [OJ C 86, 7.3.2019, p. 36-40](#)

35. recalls the relevance of the implementation of smart infrastructures and considers smart cities and communities to be natural pioneers in this field;
36. recalls that the energy efficiency of buildings is a key issue with a view to a successful transition to climate neutrality and that smart solutions are meant to play a decisive role; in this sense recalls that those smart solutions are likely to be effective only if they are inscribed in the context of smart cities and communities and if they are not implemented as an isolated solution; in this context also recalls the important role of the "Smart Finance for Smart Buildings Initiative" in providing funding mechanisms for this purpose;
37. points out that local and regional authorities play a key role in implementing sustainable housing policy and make a significant contribution to enabling the EU's policy objectives to be implemented in practice;
38. calls for the provision of incentives oriented towards maximum energy efficiency in new buildings and retrofits as per standards in line with the Passive House Standard, together, where appropriate, with the use of smart technology in buildings;
39. recalls the CoR's support for Sustainable Urban Mobility Plans based on multimodality and coordinated use of low- or zero-emission urban-regional transport and logistics, underlining the principal role of rail and water-borne transport in lowering emissions;
40. Recalls that the urban transport sector is currently shaping and experiencing a paradigm shift, with coinciding transitions in the field of energy use (electrification, alternative fuels), technologies (ITS) and behavioural change (sharing economy, focus on active travel). These changes affect passenger as well as freight transport, business as well as leisure travel. This paradigm shift can be directed to achieving Smart City objectives such as stimulating the local innovation market, mainstreaming best available technologies and knowledge based decision-making;
41. considers as well that smart mobility technologies can help in finding sustainable mobility solutions in low-density territories, rural areas and peripheral regions, as well promoting an active mobility pattern which can improve the health of citizens;

Creating more opportunities for smart communities to finance and fast-track innovative solutions

42. notes that the outermost regions and other island regions are ideal locations for testing alternative technologies, energy and procedures and that they are also considered as "living laboratories". Their isolation, distance from the centre of Europe and high biodiversity, the proximity and accessibility of the sea, extreme environmental phenomena (atmospheric and geological) and the availability of geothermal energy are not limitations in the context of developing solutions for implementing the SDGs, but rather geographical advantages that provide the opportunity to test prototypes in controlled conditions, but with the highest level of difficulty.

43. highlights the potential of local zones where flexible and innovative regulatory tools or alternatives to regulation can be tested in a real world urban context, which can enable the exploration, and possible subsequent implementation, of sustainable innovations (e.g. in the housing domain); the city as "a learning machine" facilitates social learning and enables cooperation that can reduce social risks;
44. highlights the importance of decentralisation in the fiscal domain, in order to facilitate the improved embedding of regional and (large) urban climate-oriented fiscal measures in the local context;
45. highlights the importance of providing local communities with tools and capacity building activities to enable their transition to smart communities, bridging the digital gap and ensuring no citizen and no territory is left behind;
46. recalls the crucial role of Public-Private Partnerships (PPP) in the implementation of smart cities and communities and calls on the European Commission to make further efforts in creating the enabling conditions for large and small local authorities to apply this instrument;
47. reiterates the role of smart communities as drivers of a smart and inclusive energy transition and calls on the European Commission to further support smart cities and communities in their action through dedicated and accessible funding instruments;
48. welcomes the decision of the European Commission to identify a Mission on climate-neutral and smart cities in the framework of the new Horizon Europe;
49. calls for the EU climate policy to be holistic and based on a systemic and integrated approach, noting that so far EU and national policies are often fragmented between different sectors and categories and between urban and rural areas;

Brussels, 9 October 2019

The President
of the European Committee of the Regions

Karl-Heinz Lambertz

The Secretary-General ad interim
of the European Committee of the Regions

Pedro Cervilla

II. PROCEDURE

Title	Smart cities: new challenges for a just transition toward climate neutrality - how to implement the SDGs in real life?
Reference(s)	Letter of referral from the Finnish presidency
Legal basis	Article 307(4) TFEU
Procedural basis	Art. 41(a) and Art. 43 of the Rules of Procedure
Date of Council/EP referral/Date of Commission letter	
Date of Bureau decision	
Commission responsible	Commission for the Environment, Climate Change and Energy
Rapporteur	Rapporteur-General: Andries GRYFFROY (BE/EA) Member of the Flemish Parliament
Analysis	
Discussed in commission	
Date adopted by commission	Exploratory debate on 19 September 2019
Result of the vote in commission (majority, unanimity)	
Date adopted in plenary	9 October 2019
Previous Committee opinions	
Date of subsidiarity monitoring consultation	