

IGF Dynamic Coalitions & the Sustainable Development Goals (SDGs)

◆ DC on the Internet of Things

An ethical way forward is the only way to ensure IoT development and deployment can happen in a sustainable way, supporting both society and business in the long run. The challenge is to determine what “ethical” means at a global level, and how such an approach can be realised, world-wide (governance aspect). The IoT Good Practice Declaration to the DC IoT expresses this and will function as a vehicle for further dialogue on this. The Sustainable Development Goals that have been agreed by the UN General Assembly in September 2015 represent global norms, and include a clear call for connected technologies to contribute to achieving them. IoT connected objects will be able to cover large areas for monitoring and collecting information that will help with early warnings for accidents and natural disasters, will help better understand what is needed for specific purposes by measuring, and will partly be able to handle autonomously when triggered to do so by measured values.

As such, ultimately all SDGs will be affected by the ongoing digitization of our societies. In particular, the Internet of Things will be of immediate value for contributing to the achievement of a good subset of the SDGs, which we are happy to discuss. In our opinion, achieving the following SDGs will be only possible with good use of IoT:

- Goal 2 End hunger (specifically 2.3 and 2.4): IoT is already used today to improve crops;
- Goal 3. Ensure healthy lives (specifically 3.6 and 3.9): IoT is already today essential for traffic management and environmental warning systems;
- Goal 6 Water and sanitation (specifically 6.3; 6.4; 6.5; and 6.6): IoT as become an important part of water management: preventing dumping, alerting in case of hazardous chemicals and materials in the water, and distributing water efficiently;
- Goal 7 access to energy (specifically 7.2 and 7.3): for instance sensors and switches that manage energy collection and distribution, detect failures, and increasingly also allow two-way energy streaming and local production;
- Goal 8 Economic growth and jobs (specifically 8.2 and 8.3): with modest investments, first steps towards IoT enabled solutions become possible. This does not only allow entrepreneurship and start-ups to take place with minimal resources, it also potentially brings IoT applications to where solutions need to be provided;
- Goal 9 Resilient infrastructure and sustainable industry: sustainability comes with feedback loops, and IoT networks are very well suited to provide this feedback, automatically, based on measurements in the system;
- Goal 11 Sustainable cities and settlements (specifically 11.4, 11.5, 11.6, 11.7) Networks of monitoring systems and sensors will be able to detect natural disasters building up. Partly, autonomous protection systems can be build in (like closing dams). Monitoring also helps in keeping public spaces safer Cities around the world have started to experiment with IoT applications in many ways, ranging from intelligent waste collection to smart lighting, city bikes on subscription basis to smart traffic management systems and alerts for unhealthy pollution levels;
- Goal 12: Sustainable consumption and production (specifically 12.5 and 12.6): feedback loops that become possible thanks to the use of tags and sensors in materials. Maintenance when needed, as indicated by the object that may require maintenance, such as cars, industrial machines, etc.;
- Goal 13, 14 and 15 Sustainable environment related: measuring and feedback loops;

IoT helps to generate the data we need to better understand what is going on, and to learn. As it is scalable technology with a relatively low threshold to develop and deploy, people around the world can learn from each other and will be able to better address societal and practical challenges in their immediate environment – in this way IoT directly supports Goal 17 as well: strengthening the means to achieve the SDGs, as it will help to get more factual measurements on progress.