

# Report of the G7 Environment Ministerial Meeting

## Side Event on Universities for Sustainable Development

Bologna, 11<sup>th</sup> June 2017

During the G7 Environment Ministerial Meeting under the Italian Presidency taking place in Bologna, 11-12 June 2017, representatives from Universities and Research Institutes of G7 countries participated in the side event on Universities for Sustainable Development, in parallel with the first day of works at Ministerial level. The event was aimed at discussing and consulting with professors and researchers on how universities implement sustainability both within and beyond their organization.

First, experiences and best practices have been gathered on teaching and research for Sustainable Development. The discussion focused on the relevance of sustainability in teaching courses and research programs and the ways in which Universities manage their facilities and personnel, how they adopt internal measures addressed to cut carbon and energy bills, and how they sustainably integrate with the external context (i.e. cities, transportation networks, local communities).

Representing Universities of G7 countries in the first session, the following delegates have been designated:

- Prof. John Robinson, University of Toronto – Canada
- Prof. Yvan Lagadeuc, University of Rennes 1 – France
- Prof. Marco Rieckmann, University of Vechta – Germany
- Prof. Kensuke Fukushi, University of Tokyo – Japan
- Prof. Angelo Paletta, University of Bologna – Italy
- Prof. Callie Babbitt, Rochester Institute of Technology – USA

Director Denis Guibard from the Telecom Management School (France) chaired the session.

Second, the discussion focused on how Universities implementing Sustainable Development and Sustainable Development Networks. Topics discussed included how Universities contribute promoting knowledge and science-based regulations and innovation on sustainability; the role of Universities in the creation of new and tailored start-ups and spin offs and in the identification of new potential markets; and their role in public-private partnerships/networking for the implementation of Circular Economy.

Representing Universities of G7 countries in the second session, the following delegates have been designated:

- Prof. Stewart Elgie, University of Ottawa – Canada
- Prof. Denis Guibard, Telecom Management School – France
- Prof. Mario Schmidt, Pforzheim University – Germany

- Prof. Kensuke Fukushi, University of Tokyo – Japan
- Prof. Giovanni Sanna, University of Naples Federico II – Italy
- Prof. Thomas Coon, Oklahoma State University – USA

Professor John Robinson from the University of Toronto (Canada) chaired the session.

The room agreed in producing a text containing a preamble, key messages, proposed actions and conclusions. Thus, the following text has been shared and agreed among the G7 representatives participating in the Side Event.

### **Preamble**

Finding ways to achieve sustainability and clean growth is perhaps the major challenge and opportunity of our time. This means continuing to raise standards of living and improve quality of life, while driving down carbon emissions, pollution, and restoring natural capital. These important goals are reflected in the UN's Sustainable Development Goals, in the Paris Agreement, in the UNESCO documents on Education for Sustainable Development<sup>1</sup>, and other important global documents.

It is possible to build cleaner, stronger, more inclusive economies and societies, with the right policies and incentives. Sustainability is beyond climate, environmental issues and G7 Countries.

Universities can play a role beyond traditional research and education, becoming living labs, agents for change and experimenting of technology. Universities can do what markets can't: they can study, teach and engage communities in implementing transformative change.

### **Outputs for the first session**

Universities and researchers have important roles to play in advancing the shift to sustainability and green growth, including:

1. Teaching
2. Research
3. Leading by example in our actions
  - Minimize own carbon and environmental footprints (green campuses)
  - Test out innovative technologies
  - Environmentally responsible investment of endowments and other funds, and
4. Broader engagement of all stakeholders

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<sup>1</sup> UNESCO (2017): Education for Sustainable Development Goals. Learning Objectives". Paris: UNESCO. <http://unesdoc.unesco.org/images/0024/002474/247444e.pdf> and UNESCO (2014): "UNESCO Roadmap for Implementing the Global Action Programme on Education for Sustainable Development", <http://unesdoc.unesco.org/images/0023/002305/230514e.pdf>

Universities are therefore focal centres for high-level education, analysis and knowledge diffusion. They also contribute to shape, develop and provide skills for the transition towards sustainable development. They support key actors in defining and implementing international climate goals and the actions aiming at mitigation, adaptation and coherence of financial flows, for them to become transformative.

But they need to:

- Enhance the transdisciplinary educational dimension of university programs (e.g. graduate and undergraduate degrees) in sustainability and creating innovative engaging initiatives (e.g. service learning, project-based learning, e-platforms). Include sustainability subjects in general curricula for all students, in the context of a whole-institution approach of education for sustainable development.
- Innovate curricula, based on new approaches to teach sustainability (“action-oriented transformative pedagogy”) that connects to real world problems.
- Better align their actions with primary and secondary education and life-long training of employees and professionals, and develop tools for educating decision-makers and leaders to sustainability.
- Facilitate the flow of scientific information and results through academic publications to broader audience and stakeholders.

Many Universities are adopting internal measures addressed to improve sustainability and to cut carbon and energy bills, and contribute promoting knowledge and science-based regulations and innovation on sustainability, joining public-private partnerships and actions. They are already prominent clusters/networks aiming at promoting such actions.

But they need to:

- Raise student and staff communities to promote sustainable behaviors and lifestyles that catalyze relevant actions for the entire hosting urban community (e.g. mobility, housing, urban regeneration) and for achieving the SDGs.
- Share information and good practices (e.g., sustainability guidelines or a sustainability charter for universities), on the ways in which they manage their facilities and personnel, adopt internal measures for being more sustainable, and sustainably integrate with the external context (i.e. stakeholders and communities engagement).
- Develop common indicators and metrics for monitoring their environmental performance, to facilitate benchmarking activities and engagement on targets for reducing environmental impacts, in view of improving effectiveness of National/International Assessments with respect to the SDGs.

## **Outputs for the second session**

Universities can contribute to the promotion of all major domains of sustainable development and circular economy by:

- training graduates in all fields in creating the rigorous research-based knowledge required for the innovation of technologies, regulations and business models;

- contributing to policy development for sustainability and clean growth;
- partnering with businesses, government at all levels and civil society to advance sustainability solutions;
- contribute to the expertise of all stakeholders, including government, business, civil society and other actors;

Some successful practices include:

- enable existing large companies, SMEs and other institutions to transform themselves and assess their social, economic and environmental impacts;
- informing smart policy development on environmental tax reform, clean innovation, resource efficiency, etc.
- promoting new and tailored start-ups/spin offs in the relevant domains and identifying new market potentials. Here they can i) promote entrepreneurial culture specific to sustainability and circular economy within the entire academic community (administrative staff, faculty members and students); ii) perform scouting entrepreneurial ideas engaging students (undergraduates, PhD, etc.) via tailored events; iii) create awareness of the potential of sustainability and circular economy in active professionals and entrepreneurs via lifelong learning programs iv) facilitate relations with companies that are well representing circular economy within their business models and v) mechanisms to measure and control sustainability actions (f.i. Social Return on Investment).

But Universities need to improve their role vertical (High level Universities/students) and horizontal collaborations, i.e. public-private partnerships/platforms/Centers, in which Universities are closely cooperating with local industries, legal/fiscal/financial actors, policy makers, authorities and the civil society, by providing research-based interdisciplinary knowledge, education and training, to

- i) develop more effective research and innovation (R&I) agendas, trainings, policies and communication actions;
- ii) create longer and resilient value chains, capable of a more efficient technology transfer and products commercialization;
- iii) efficiently promote priorities towards institutions elaborating regulations/funding programs;
- iv) improve effectiveness of the participation of R&I institutions, industry and associations in regional, national and international funding programs, reducing fragmentation, increasing impacts and building trust;
- iv) align R&I funds, policies and infrastructures at regional, national and the international level, by avoiding duplication and maximizing synergies and the leverage effects
- v) facilitate problem-based learning and focus on developing practical solutions.

## **Conclusions**

Universities are significant players in the sustainable growth: they can play a role beyond traditional research and education, becoming living labs, where the physical campus becomes a test-bed for

designing, implementing, studying and teaching sustainable practices, technologies and infrastructure, and agents for change and experimenting of technology.

Universities can do what markets can't: they can study, teach and engage communities in implementing transformative change.

They need your joint support to:

- see their role in facilitating sustainability in partnerships with all stakeholders better recognized;
- implement the mentioned needs;
- be better interconnected, for a more effective sharing of good practices, challenges and opportunities.