



## Challenge for Life Science Universities to deliver impact in addressing the Sustainable Development Goals (SDGs)

In October 2017, the 7<sup>th</sup> ICA Rectors and Deans Forum discussed how life science universities should respond to the global drivers for change exemplified by the United Nations Sustainable Development Goals.

In September 2015 the General Assembly of the United Nations adopted an ambitious 15-year agenda "Transforming our World: The 2030 Agenda for Sustainable Development". The document contains 17 Sustainable Development Goals (SDGs) and 169 targets that are intended to build peace, just and inclusive societies. It represents a major turning point in the global effort to tackle development challenges. The ambition is to have a world where livelihoods are free of poverty and hunger in sound and safe environments, where global threats like climate change are successfully combated. It envisages sustainable production patterns and inclusive, effective economies and institutions. The Agenda 2030 is ambitious, broad, and as the UN puts it, "indivisible". It is a truly transformative plan for people, planet, prosperity, partnership and peace.

The SDGs are open and grand challenges that require systemic change. Life sciences universities have the challenge to strongly respond to the SDGs through education programs and the application of sciences in agriculture, food and non-food value chains as well as in environmental protection. The Forum considered these challenges under three headings and, following expert presentations (see [www.ica-europe.info](http://www.ica-europe.info) for the presentations), panel and round table discussions, the following was concluded.

### 1. How should Life Science Universities address the challenge of the Sustainable Development Goals?

The SDGs state an ambition for humanity, but do not analyse the root causes of global inequality, poverty, environmental destruction and underlying power relations. However, having articulated the ambition and recognised the root causes, Universities have the opportunity to make a major contribution by responding with a new narrative on how to change society to live in the future. In developing this new narrative, it should be recognised that the SDGs are complex, indivisible and intertwined. They are interlinked and improving one will impact (hopefully benefit) others, there are no incompatibilities amongst the Goals. For example, Goal 5 addresses gender equality that has a significant role to play in at least 5 other Goals, and Goal 4 addresses quality education that arguably is important for the success of all other Goals. Society and

universities need to address the issues with intent, and to recognise that the global challenges call for transformation beyond tokenism.

Food security is a function of both food consumption and food production – both of which present challenges and opportunities for universities in education, research and innovation. In addressing the challenge of socially, economically and environmentally viable food production universities will engage with the complex issue that is sustainable intensification. Sustainable intensification is the simultaneous improvement in agriculture productivity and environmental management of agricultural land. This is challenging and is a knowledge intensive activity. Productivity needs to be measured in more ways than simply kilograms of product or financial gain per hectare, but should also include social (e.g. leisure) and environmental (e.g. biodiversity) values.

In recognising that the SDGs present complex challenges, it is acknowledged that life science universities and faculties have a comparative advantage relative to others in that they have been engaging in these issues as their core business for decades. This also presents an opportunity to take a lead on the SDGs and to lead other academic disciplines to push the sustainability imperative.

## 2. What is the impact of the Sustainable Development Goals on the Life Science Universities' education programmes?

Education is the single biggest factor that will contribute to the success of the SDGs. While there is a global emphasis on increasing primary and secondary education, third level education is also critical with the numbers of worldwide third level students having more than doubled in the last 15 years (100 million in 2000 to 212 million in 2015). Engagement with the SDGs is variable among universities, with diverse approaches and each emphasising their own values and benefits. None the less, education has a significant and important role in engendering sustainable values in students. The Forum suggested that education programmes should:

- Give students the skills to do the right thing for society and to encourage them to present their ideas and views. Realise the value of collaboration and embrace complexity to tackle the issues we now face and will do so in the future. See the students as citizens with impacts and responsibilities. Our graduates will be the ones to change society.
- Not lose sight of the benefits of philosophical thought (that builds critical thinking skills) versus the great focus on students acquiring technical skills. The SDGs are a philosophical ambition that will be achieved in part by technical solutions.
- Consider offering specific modules on SDGs but more importantly, embed sustainability in its many guises as a thread running through all courses.
- Offer extracurricular activities to engage students with the SDGs and encourage

students to engage with outside University experiences (e.g. internships and volunteering).

## 3. How should Life Science Universities provide leadership in the delivery of the Sustainable Development Goals?

Life science universities should provide leadership through governance of the university and engagement in policy development at national, regional and global levels. Universities should adopt a civic role in society and engage in the notion that they have an education, research and innovation contribution to the strategic position of nations, regions and cities in global competition. Simply put, the responsibility is to create and disseminate knowledge to improve society and the world. Think globally but act locally (and globally in areas of expertise).

Universities should act as urban anchor institutions – building strong relationship with all stakeholders in the community and recognise the important role that students and alumni have in disseminating new knowledge, practices and ways of thinking. Universities also need to recognise that alone they can only achieve so much, and must therefore take a collaborative approach to influencing change by working with like-minded institutions, communities and citizens, and also national and EU policy makers.

To operate most effectively in an increasingly dynamic global environment universities need to loosen their structures and processes (including ways of thinking and collaborating) to allow them to be more flexible and reactive to opportunities, responsibilities and threats. In delivering impact for the SDGs universities themselves must also engage in sustainability, they should practice what they preach, they should lead by example, and to paraphrase Gandhi “be the change you wish to see in the world”.

Lastly, universities should widen their perception of success, it is not always about money, publications and student learning but also about shaping a sustainable society.