### 'We do not inherit the Earth from our Ancestors; we borrow it from our Children.'

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## What is SiS Catalyst?

This proverb from an unknown Native American tribe is at the heart of the thinking of SiS Catalyst: Children as Change Agents for Science and Society. Focusing on the dialogue between society, the scientific and technological community and children, we have been identifying learning within and between, our own organisations, systems, cultures and countries. As we shared this learning globally, it has become very clear that the issues and concerns are contextualised locally; but our solutions are intrinsically the same. This combined with the recognition that our future is being created by our local individual actions, enabled us to take a universal approach which transcends systems, cultures and countries.

# **Mobilising Mutual Learning Action Plans**

SiS Catalyst is a Mobilising Mutual Learning Action Plan (MMLAP) funded for four years (2011 – 2014) by the European Commission under the Seventh Framework Programme. It is currently one of only nine projects classed as MMLAPs and has 30 partners and advisers from 23 countries and since 2013 there are also 36 Mentoring Associates in 18 pairings, from 25 different countries.

With a minimum duration of three years, MMLAP Activities may take place at local, regional or national levels and must have a European dimension with transnational exchanges. They include:

- Facilitating dialogue and building a common approach
- Making the various types of relevant knowledge accessible
- Capacity-building and training
- Identifying topics and opportunities for future participative multi-actor research
- Producing a common and well-adapted communication strategy
- Promoting Science in Society aspects and Responsible Research and Innovation dimensions (societal engagement, gender, ethics, open access, science education, governance)
- Monitoring related initiatives and policy developments at local, national and European levels

The purpose of MMLAPs is to collectively-build responses to the various questions raised by a societal challenge and by the research and technologies that are used to address them. The societal challenge that SiS Catalyst addresses is; it is a global reality that our children will inherit the world that we create today; this will be our collective legacy to them. However, the one group that is not included in the development of our policies and practices is the one group that will be most affected by them, our children.

## Locally defined minorities

SiS Catalyst is a social inclusion initiative. It seeks to address the social exclusion which occurs as a consequence of poverty, unemployment, poor educational qualifications, disabilities and a lack of resources.

Within SiS Catalyst we have used progression to higher education as our indicator of social inclusion because successful completion of higher education brings many benefits to the individual, their family and community. Globally, and within countries, there is great inequality of opportunity for progression to higher education. Successful completion of a higher education brings with it a range of benefits including the increased likelihood of a lifetime with a higher income, more employment security and opportunities, as well as other benefits including better health and even increased longevity.

It is a global reality that within some streets 8 out of 10 young people benefit from a higher education, whilst in some streets less than 8 in a 100 young people benefit from a university education. Within SiS Catalyst, we have used the expression 'locally defined minorities' to explore at an organisational level, which children are least likely to progress to higher education.

The key factors which determine the likelihood of a young person going to university are; where they live, the income of the family, their gender and if they come from a minority community.

Whatever the country, it is not difficult to envisage the streets where the 8/10 young people live. The streets are more affluent, there are more cars, the houses are bigger and there is clearly more money available. In the streets where the less than 8 in 100 live, the streets are more crowded, there are less symbols of wealth and behind this there are other indicators of poverty for example higher crime rates, higher teenage pregnancies and less public resources available etc.

Globally there is a direct link between low family income and attainment at school. In some countries this is more extreme than others but across the world economic poverty is directly linked to poverty of educational opportunities.

Gender is also a factor for the likelihood of progression to higher education and this is also specific to particular subject areas. In some countries girls are less likely to go to university, they are also less likely to study a specific set of science and engineering subjects. However, in many of the developed countries there is a worrying trend for boys to be less likely to go to university. In my personal opinion this is a very serious development and one which is not being fully recognised or addressed. We are in danger of failing a generation of our young men, by disenfranchising them from education in their mid to late teens.

Young people from minority communities, as a consequence of ethnicity, religion or another aspect of differentiation, can also be more or less likely to progress to higher education. If the young people from a minority community are also living in an area of low income and associated poverty, this often compounds their likelihood of not progressing to university.

It is important to recognise that every higher education institution will have their own 'locally defined minority'. There could be two universities within one city with very different groups of students; there can be two departments within one university recruiting very dissimilar cohorts of students.

Social inclusion and participation in higher education is a multi-layered and multi-sector issue, to which no country in Europe currently has a solution. The concept of locally defined minorities is one which enables a country, region, institution or organisation to target a particular group of young people. By identifying the group of children least likely

to progress and succeed within a higher education institution, it is possible to make a direct link within policy and practice that directly addresses generational social inequality.

During the presentation at the conference in Pécs I asked the participants to consider the group that they would identify as their 'locally defined minority' by asking a specific question; identify 3 characteristics of who is NOT benefitting from university in Baranya County?

With a specific knowledge of the locality and economic circumstances of the region it is not difficult to draw up a list of characteristics in order to identify this group. I felt it was important for the participants of the conference to visualise those young people who are currently most excluded from educational opportunities in Baranya County.

The experience of SiS Catalyst has been that although our locally defined minorities are very specific to our unique history, society and location, the issues that they face and the solutions to these are very similar. The message of SiS Catalyst is that progression to university is not the result of ability; it is the consequence of culture. Young people usually go to higher education around the age of 17/18 years; but inequalities in the achievement of children from low and high income backgrounds emerge extremely early.

## **Culture of higher education institutions**

We have also been looking at the culture of higher education institutions. These are built upon the experience of generations of those who have had the advantage of educational opportunities. This culture is deep and pervasive and each institution has its own specific culture which is a blend of its unique history, geography, people, values, politics, architect and weather etc.

The culture of the child from the 'locally defined minority' does not include progression to higher education. That is not a value judgement; it is a statement of fact.

The likelihood of a young person from a 'locally defined minority' progressing to, and succeeding within, a specific university is therefore about the relationship between these two cultures. However, there are a range of other societal actors involved; primary and secondary educational services, governments, media, business, traditions, civil society organisations, social movements and of course, the young people themselves.

SiS Catalyst is about the global changes in culture that we need to embrace for our future. The question we have been reflecting on is; how can we include children in a dialogue between society and the scientific and technological communities, including the governance of such activities?

### The evolving technology

Children are growing up in a world that is fundamentally different to that of their parents and grandparents. We live in a world of evolving technology, with global connectivity and unprecedented access to knowledge. The learning journeys of our children are in the context of technologies which expand the scope of human possibilities. This raises the question; are current educational systems fit for purpose?

The SiS Catalyst question is; how will children be societal actors in the development of the new educational systems? In the context of Baranya County the question is how do children see technology providing opportunities for the region?

The connectivity and access to knowledge that the developing new technologies give us are not dependent on being connected physically, for example by living in the city. Children will use technology differently than the current generation, and they will use it within their own context. So the question that I posed how radical will the Ős-Dráva program be?

There is an opportunity within Banyana County to explore with children how they could best use the technology to enable their dreams to come true. But this will require building the trust, providing a support environment, obviously enabling access to current technology and then asking the children themselves how they foresee technology being used to enable them to implement their own vision for the future.

This is not an easy concept for many adults to embrace as there are lots of levels to it. Firstly the recognition that children use and will use technology in ways almost impossible for us to understand. Secondly it questions our roles as adults; we cannot teach what we do not know. It also fundamentally means that we have to trust children and showing and acting upon their reflections.

By including children as societal actors in the development of policy and practice I am proposing that adults take responsibility for finding ways of consulting with children. I also believe that children need to understand that they are genuinely being given responsibility, that they are trusted, respected and being listen to. This is the mutual learning we have to mobilise: thinking globally and acting locally by involving children in the decisions that affect their future.

#### The ethics of this work

Being involved with SiS Catalyst has made us look at the ethics of how we make the individual choices which collectively create our future. Ethics deals with values and virtues, with good and bad, with right and wrong. It affects what we say or leave unsaid, do or don't do. Ethical practice has higher aspirations than law, which often only sets minimum standards.

As children represent approximately one-third of the world's population, we feel that it is fundamentally right that we ensure that they are societal actors in the creation of their own future?

## Key player - does this mean you?

Within SiS Catalyst we have explored the concept of 'key players' as individuals with responsibility for change. We conceptualised two sets of key players; Strategic 'Enablers' who facilitate or block change and operational 'Hands-On' key players who make things happen locally.

The future of our children and our children's children is dependent on the actions we take today. With this knowledge comes the responsibility that this global perspective needs to be incorporated into action within our own day to day activities. Agents of change create paradigm-shifts. In the past accepted beliefs took many years to be

replaced by new worldviews. In our world the pace of change is so much faster, as our technological interconnectivity enables ideas to go round the world in seconds.

SiS Catalyst recognises that key players are agents of change; they have the responsibility of ensuring that we include children as societal actors within all future actions, policies and practices within their own sphere of influence.

The key players within Baranya County were very well represented at this conference. Both the Enablers and the Hands-on key players; the policymakers and opinion influences, who can make/or stop things happening and those who work at an operational level who's passion, commitment and a mission will implement the changes in Baranya County.

Both sets of key players have different spheres of influence, and both are necessary for a change to occur. The message from SiS Catalyst is for both sets of key players to be fearless! to genuinely put the children, and their future world, at the centre of all thinking, planning and actions.

### **Cultural Go-betweens**

Within my presentation, I also used an example from Lima, Peru. The Mundo de Ania initiative (the World of Ania) - www.mundodeania.org. This civil society organisation works with children across Peru and other countries in South America by supporting them to take responsibility for their own actions, within their own world.

The philosophy of Mundo de Ania is to enable children to see that they can take responsibility for their own actions now. That responsibility is not something that they will start to do for example when they are 18 years old.

Mundo de Ania does this by supporting children to take responsibility for their own little garden ("Tinis"). These were personal spaces, outside their homes, or sometimes just three little plant pots.

Each of these little gardens had three discrete elements. The children grew something for themselves ("Para mi"), they grew something for another person, for example their grandparents ("Para mi familia"), and something for Nature ("Para la Naturaleza"). By this very simple method the children took responsibility for themselves, for someone else and also made a contribution to the wider world.

I gave the specific example of a group of children living in a shanty town of Comas, on the outskirts of Lima, Peru. This is an area of great poverty and associated social and economic issues, and a very bleak environment for children to grow up in. A group of children had become involved in Mundo de Ania through the voluntary work of a young local lad, Roger. This young man, not much older than the children themselves, had assisted them to grow their own personal little gardens, as well as a beautiful communal green space; an oasis for children.

I explored the role of Roger and used the expression Cultural Go-between to describe it. It would not have been possible for an outsider to have gone into the community of Comas, to have built the trust of the children, their parents and the Gangs etc. But because Roger had grown up, and was known within that community, he was able to introduce the children to the ideas of Mundo de Ania. He was a Go-between between two cultures; the culture of Comas and the culture of Mundo de Ania.

### **Implications for Baranya County**

I concluded the presentation with some specific questions based on the findings of SiS Catalyst:

Ask the children - it's their future.

How will you do this?

Who are the Cultural Go-betweens in Baranya County?

Do you (and your institution) share the children's dreams?

Who is taking responsibility to co-create these dreams?

What support is needed to co-create these dreams?

What will this collaboration look like in practice?

Is everyone 'on board' and respectful?

# **Concluding thoughts**

The focus of this conference was on Response-able communities. Within my presentation I focused my attention on the future, the children. I propose that the organisers and the key players within Baranya County took the responsibility that came along with additional funding and a mandate to change, by ensuring that children were given the opportunity to be genuine societal actors within the process of change. This will require ensuring that children understand that they are genuinely being given responsibility, that they are trusted, respected and being listen to in the decisions that affect their future; and the future of their children's children.