

Modeling Cities of Scientific Culture

Report of a visit to the third PLACES conference, Turin, June 2013

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Introduction

PLACES is a European project that aims for cities to improve their inhabitants' involvement in and understanding of science. By setting up stronger collaborations between municipalities and science communication organisations, cities all around Europe can reach a status of truly being a 'City of Scientific Culture'. These so-called City Partnerships (CP) have arisen already in 69 cities, distributed over 27 countries. Science communicators and local governments set up a long-term strategy for communicating science to and with the public. This strategy takes on a more concrete shape in the form of a so-called Local Action Plan (LAP). In this plan, usually a local scientific topic is used to engage people with science and thereby improve the public understanding. Examples of these topics are local laboratories, local scientific histories and local museums. As a first step to launch the LAP, a Pilot Activity is set up to test the approach.

On 20 and 21 June 2013, the third of a total of four PLACES conferences was held in Turin, Italy. On behalf of Leiden municipality and Leiden science communicators, respectively Maarten van der Plas and Erik Arends were invited to attend this conference. Their findings in the search for best practices and ideas that could be used to create a CP in Leiden are summarized below.

Ten best practices¹

1. Vitry-sur-Seine, France: Temporary installation of permanent museum exhibits in high schools. Afterwards, the organisation of scientific challenges and workshops with science educators, followed by meetings with scientists.
2. Nancy, France: Developing and bringing traveling exhibitions or other mobile tools to the heart of local communities. Supporting local actors to set up long-term projects, such as a science centre.
3. Granada, Spain: A science museum trains teachers to do a science project in their schools and provides them with the necessary equipment for this. They come back with their pupils to the museum and report their findings.
4. Tartu, Estonia: Public and scientists watch movies about the world ending, after which the scientists explain what is realistic about the scenario, and what not. Afterwards, an open discussion follows.
5. Estremoz, Portugal: Duathlon on a course of a to-scale-model of the Solar System. This lets the participants really feel how vast the distances are between the outer planets, in comparison to the inner planets. It creates a sense of amazement about the large empty space in our Solar System in specific, and the Universe in general.

6. Lugano, Switzerland: Inspired by the latest exoplanet discoveries, artists make a collection of images how alien worlds could look like. These are displayed to the public in a former slaughterhouse.
7. Vienna, Austria: Asking the public to look for the scientific history in their own city/neighborhood. How is it visible? Think of street names, statues, buildings, name bricks in buildings/streets, scientific institutes, etc.
8. Groningen, Netherlands: A local action plan focuses on fostering a new generation of scientists. It is based on the Agreement of Groningen - a document enshrining collaboration between the Hanze Hogeschool, the UMG, the city of Groningen and Science LinX, which is the science communication institution at the science faculty of the Rijksuniversiteit Groningen.
9. Waterford, Ireland: Organizes science summer camps for gifted pupils.
10. Brussels, Belgium: A good example of a museum of natural history (like Naturalis in Leiden) actively helping citizens and the municipality in making plans to improve the quality and biodiversity of small rivers and the pond in the Leopoldpark.

¹For the complete posters, see <http://goo.gl/yuLVi>

Conclusions

The different activities under the umbrella of the PLACES platform can be categorized as follows:

- Activities to show the general public the benefits of science
- Activities to teach pupils about science in general
- Activities to stimulate talented or interested pupils to start a study in science
- Activities to help municipalities with local issues
- Activities to help local action groups
- Activities to show the inhabitants and the outside world that the city is really a city of scientific culture and worth working, studying, living and investing in.

Many cities are in transition from an industrial based city to a science based city. Science communication helps to easy inhabitants and the outside world into this transition.

In most cities there is a need for more students studying science and technology at all levels.

Leiden has many similar activities but they are not coordinated and not made visible in a local action plan. Current projects are: Universe Awareness, Junior Science Center, Technolab, museums like Boerhaave, Naturalis, and Corpus, the new science night on the 14th of September, Proeftuin voor zorg en welzijn, and many more.

Recommendation for Leiden

There is no need for the City of Leiden to formally join the PLACES project. We extracted enough information and inspiration from the PLACES conference to make a step forward.

We propose the following:

Make a Local Action Plan for science communication and, like the actors in Groningen, make that part of the Kennisstad Program, which Leiden University, the LUMC, the municipality and other institutes are working on.

As part of the Local Action Plan, the following actions could be taken.

- Look into possibilities to set up some of the above mentioned 'ten best practices', with special attention to:
 - o Vitry-sur-Seine: temporarily install science museum exhibits in schools. This will engage secondary school students in science.
 - o Estremoz: Combining sports with science to hit two birds with one stone; participants actually feel the vast distances in the Universe by running on a course of a to-scale-model of the Solar System. This will inspire people to exercise more, as well as induce an interest in science.
 - o Vienna: Participants look for scientific history in their city. This is very well suitable for Leiden, with its rich history in science.
- Improve the cooperation between all science activities in Leiden and improve their structure:
 - o Make sure all Leiden science communication projects coordinate and communicate their activities (supported by the municipality)
 - o Maintain a city agenda with all activities of the different projects
 - o Organise annual events connecting science communicators with people from creative industries
- Visit Groningen to see their approach.