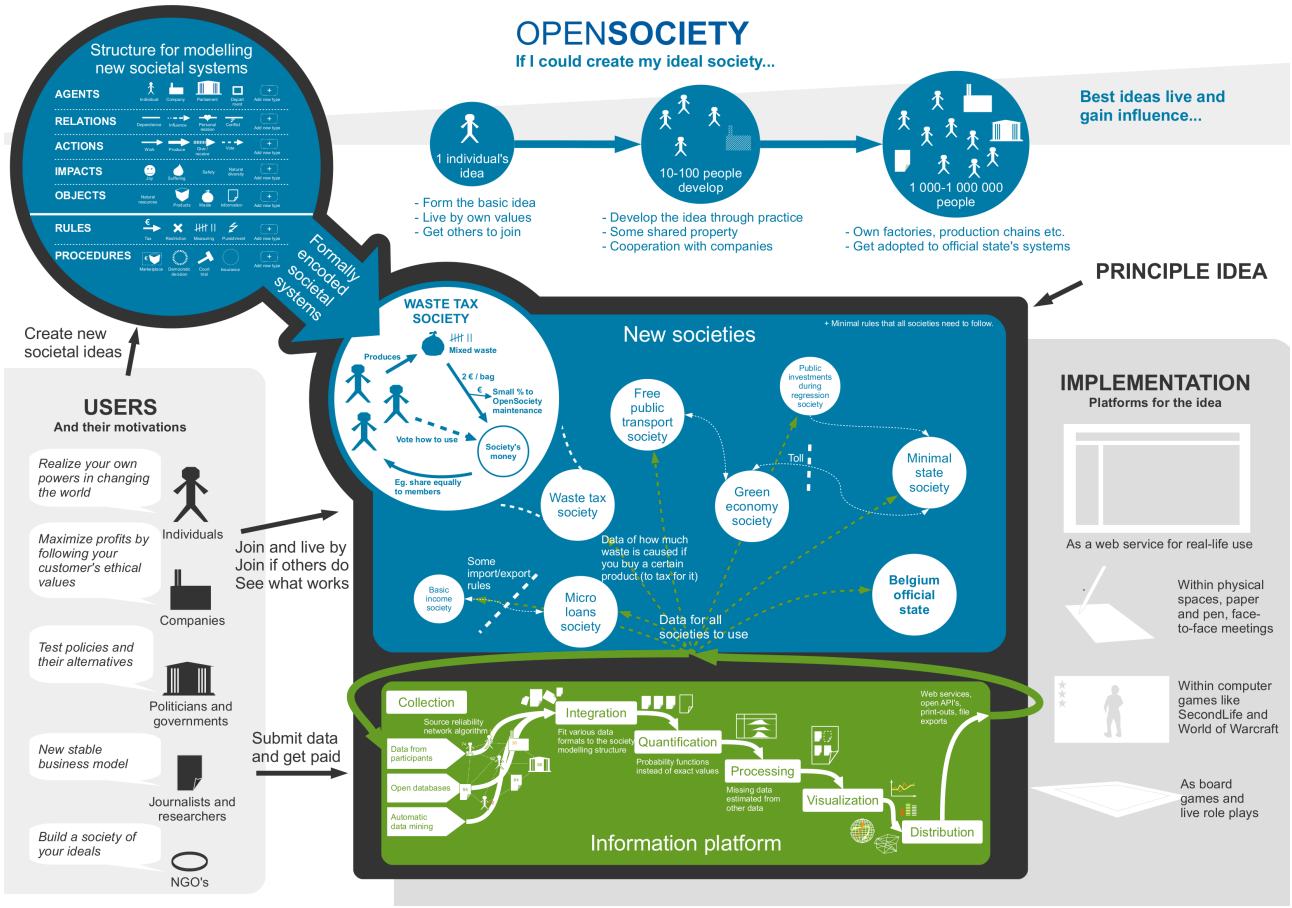

How the OpenSociety system works

In the above image, the main components of the OpenSociety are described. On the top-left corner, the society modelling structure is a formal, agent-based modelling structure to formally encode any societal system. It can encode agents, relations, actions, impacts, objects. Specific to each society, it can encode their rules and procedures. It is based on the earlier work in the field of computational social science. The modelling structure enables the creation of new societal systems in the software and provides the structure for gathering the information in a consistent data format.

In the middle of the image, the blue area depicts all the societal systems and rules that have been created by people. For example, the systems may be economic systems, political systems, juridical systems and public services. Users can create rules (eg. taxes, restrictions) and procedures (eg. marketplace, decision-making) from the generic templates in the system (eg. Online shop, online democratic parliament, business management system (ERP), e-government platform) or create a new system from the beginning. As an example, the waste tax society that has been experimented in real-life already, is encoded: when a participant produces a bag of mixed waste, he or she pays a 2-euro tax to the society. The society has decided to share the money equally back to the participants so that the low waste-producers get money back in the end and the high waste-producers end uu paying, but an alternative could be for example to offer free bio waste bags for the society's participants. Some of the societies may be as simple as include only one rule, eg. not buying any meat, while others may implement whole ideologies.

One user can belong to many societies as long as their rules do not conflict. Also, the societies may impose restrictions and requirements for interactions with other societies, eg. tolls for CO2

emissions or requirement for fulfilling some quality level or standard. The societies may also have an interface with the official societies. While the basic idea is to let societies decide everything on their own, some restrictions need to be imposed for common interest like for the use of environment and land and creation of dangerous items like some weapons. The theoretical work will find solutions for these issues.

The green area at the bottom of the image describes the information production system. Information is collected from the use of the system itself, from open databases and application programming interfaces (API's) as well as (in the future) by automatic data mining eg. on news company and research organization websites. All sources are managed and their reliability is estimated with a trust network algorithm. All data is turned into compatible formatting by defining tranformation functions to each source. It is then organized according to the society modelling structure so that it can be automatically processed and used by the societies. Qualitative information is either tagged or initially processed to quantify its information to the extent that is possible. Intelligent algorithms are used to estimate missing data from other data and to allow quantitative encoding of data on any abstraction level between “Some Chinese companies pollute a lot” and “The Apple store in Helsinki sold an IPhone 4 to Peter Peterson on 30.5.2014”. The web service also offers visualizations of the data in various formats and delivers it via many channels to the individual users to explore as well as to the societies to automatically use as a basis for its societies functioning (eg. making companies pay for their mixed waste).

The collection, integration, quantification and processing of the information may be done both automatically and manually. Where manual work is required, it is paid for by the OpenSociety system with the small fractions that the system collects from its societies as a maintenance payment. The information production is paid for per its use and usefulness for the societies as well as reliability.

On the bottom-right of the image, it is described that the idea of OpenSociety can be implemented in many platforms: physical or digital, real-life or game context. While the proposed project focuses on implementing one, general use web service, the idea could also be implemented as traditional face-to-face meetings and contracts on paper. More radical ideas may be better to be explored on a fictional game like a board game, new computer game, or within an existing role playing game like SecondLife or World of Warcraft. For example, some SecondLife user may start a communist mini society within the game if other users agree with it, too.

On the left panel of the image, the users of the OpenSociety website are listed along with their major motivations to use the system. The users can create new societies, join and live by existing ones, commit to join to some rules if some amount of other users do (eg. “I will pay my share for the food of all starving people in the world, if 20% of other Europeans do it too and if I don't have to pay more than 200 € per year” or “I agree to pay for my CO2 emissions if 50% of my friends do”). The users can also submit data and get paid for it as well as search for the data. More detailed data searches may require payments from the users, but at least the information that is received for free (eg. from open databases) is delivered to the users for free.

On top of the image, the process of the evolving of societies is depicted. One person can start a society that, for example, automatically can re-adjust the prices of products by taking into account important issues for her, eg. raise the price of high CO2 emission products and lower the price of low emission products. If the idea gets support, more people can get involved and cooperation with other parties like manufacturers of products can be started. The best ideas live and gain influence, they may own their factories and also be adopted to official state's systems as the policy has been well tested and developed and has lots of support from people.