

# Open Societal Innovation (OSI) for Politics, Public Administration, and Civil Society.

Celina E. Raffl  
The Open Government Institute (TOGI)  
Zeppelin University  
celina.raffl@zu.de  
www.togi.zu.de

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**Abstract:** This paper introduces the notion of Open Societal Innovation (OSI). OSI refers to the adaptation and subsequent sustainable use of appropriate open innovation approaches from business, adapted and utilized by state and society to solve societal challenges. Examples that match the understanding of OSI are discussed in order to gain a broader understanding for this phenomenon.

## 1. Introduction

Both business and nonprofit organizations open up innovation processes to new knowledge sources and foster co-creation with non-professionals and experts external to their own environments. This development refers to well-known concepts in business studies, such as Open Innovation (OI; Chesbrough 2003; 2006); User Innovation (von Hippel 2005; Piller 2006), Collective Invention (Allen 1983; Osterloh et al. 2006), Commons-based Peer Production (Benkler, 2005; 2006), or Crowdsourcing (Howe 2006; 2008). This development increasingly pervades public administrations around the globe. The relationship between governments and their constituents is not limited to mere information sharing, but allows cooperation and collaboration between public administration, politics, and civil society.

Citizens are willing to engage in their communities, support local clubs and organizations and are – to some extent – eager to participate in a political cause (for example the protests against SOPA/PIPA<sup>1</sup>). They cooperate in case of crisis (CrisisMappers<sup>2</sup>, Sahana<sup>3</sup>), and support public administrations in

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<sup>1</sup> SOPA – Stop Online Piracy Act, a proposed bill Congress considered making content-sharing websites legally responsible for their users' copyright violations; PIPA – Protect Intellectual Property Act (the Senate's counterpart). Both bills were eventually shelved. As (public) discussion over SOPA got more and more controversial, it was launched on *Project Madison*, "Congress's little-known online crowdsourcing legislative platform" (Ferenstein 2012). Project Madison is "an online forum where users could comment on proposed legislation, suggest alternative text and vote those suggestions up or down. [...] SOPA was Madison's first guinea pig" (Marks 2013) and sought to crowdsource the #OPEN Act (Online Protection & ENforcement of Digital Trade Act, see <http://keepthewebopen.com/open>), an alternative to SOPA and PIPA (<http://participedia.net/en/cases/madison-project>). Madison is free open-source software created by The OpenGov Foundation (<http://mymadison.io/faq>).

<sup>2</sup> CrisisMappers, The Humanitarian Technology Network: "The International Network of Crisis Mappers (Crisis Mappers Net) is the largest and most active international community of experts, practitioners, policymakers, technologists, researchers, journalists, scholars, hackers and skilled volunteers engaged at the intersection of humanitarian crises, new technology, crowd-sourcing, and crisis mapping" (<http://crisismappers.net>).

<sup>3</sup> Sahana Free and Open Source Disaster Management System: "The Sahana Software Foundation is dedicated to the mission of saving lives by providing information management solutions that enable organizations and communities to better prepare for and respond to disasters. We develop free and open source software and provide services that help solve concrete problems and bring efficiencies to disaster response coordination

times of emergencies and needs (for example Facebook groups helping victims of floods<sup>4</sup>). By reporting broken street lights or other damages to the local infrastructure through pothole-reporter systems, citizens contribute to the safety and security of their neighborhood and call attention to issues that require improvement. As such, citizens can be a viable and creative source of ideas and inspiration and may provide valuable insights and feedback regarding their demands to governments.

Among others, “Citizensourcing” (Lukensmeyer & Torres 2008; Hilgers & Ihl 2010) or “Open Social Innovation” (Chesbrough & Di Minin 2014) are concepts that can be found in recent academic literature. They basically revolve around the assumption that applying innovation methods from business context to government is beneficial to innovation processes in the public sector.

In this paper, the term “Open Societal Innovation” (OSI) is introduced in order to find a notion to capture and discuss this phenomenon observable at the interface of government and citizenship. “Open societal innovation (OSI) refers to the adaptation and subsequent sustainable use of appropriate open innovation approaches from business, adapted and utilized by state and society to solve societal challenges” (von Lucke et al. 2012, p. 1).

Reasons as to why OSI is beneficial from a government point of view range from political or ethical considerations, such as increasing public participation, the integration of underrepresented groups to reduce social imbalances, and increase of political legitimacy to rather practical considerations such as the decreasing public spending, or jointly searching for solutions, for example on how to improve the neighborhood. But OSI may also be beneficial from a civil society perspective. Citizens might embrace the desire of getting involved in their community, to participate and jointly decide on developments they are concerned with, as for example large-scale construction projects in their neighborhood, but also personal reasons, for example to strengthening social interaction or to contribute to the improvement of the neighborhood through creative and artistic means (von Lucke 2012; von Lucke 2014).

The advancement and penetration of Information and Communication Technologies (ICTs), in particular of the Internet, Web 2.0, Social Media and mobile applications (“apps”) plays an important role in the context of OI, both in the for-profit and nonprofit context. ICTs are used to spread ideas and to foster creativity and collaboration. But what internet tools, online services and digital platforms are available to promote open innovation in and for society? How can these tools be used, implemented and utilized to enhance public sector performance, to capture impulses from citizens for improving their neighborhoods, to engage and motivate for (civil) participation, and to obtain access to creative and innovative solutions for shared problems? Numerous remarkable examples and projects can be found that meet the criteria of OSI, some of which will be introduced below. At a regional conference on “Open Societal Innovation” in October 2013<sup>5</sup>, a speaker from the German Chancellery, who introduced the Foresight process of German Chancellor Angela Merkel on the Future of Germany (“Zukunftsdialog”, [www.dialog-ueber-deutschland.de](http://www.dialog-ueber-deutschland.de)) expressed: “Obviously, what we did was OSI. However, we didn’t call it OSI.”

The paper at hand aims at introducing the notion of “Open Societal Innovation” (OSI) using qualitative evidence. Selected cases that match the concept of OSI will be discussed in more detail in order to uncover potential and limits of open innovation for, within, and by society. Relevant initiatives were selected through secondary research and are based on a structured survey based on predefined classes of tools (see section 3, Classes of OSI-Tools and their Application & Implementation). Emphasis is given to projects that highlight cooperation between citizens and public administration and that aim at finding solutions to shared problems. This includes questions regarding the means and ways citizens

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between governments, aid organizations, civil society and the survivors [...]” (<http://sahanafoundation.org>).

<sup>4</sup> For example in Pensacola (<https://www.facebook.com/helpfloodvictimsinpensacola>), Pakistan (<https://www.facebook.com/HelpFloodVictimsPk>), or the German Group “Spenden für Flutopfer” (<https://de-de.facebook.com/SpendenFurFlutopfer>), which translates as “Donations for Flood Victims”. The volunteers in this group have been nominated for the German Prize for Civic Engagement 2014, which aims at strengthening the recognition of citizen engagement in Germany (<http://www.deutscher-engagementpreis.de/ueberuns/german-prize-for-civic-engagement.html>).

<sup>5</sup> Public Event: Open Societal Innovation, October 09, 2013, Friedrichshafen, Germany. <http://esocietybodensee2020.wordpress.com/2013/10>.

(volunteers), politicians, and local public administrations work together, how citizens are involved, and how citizens' impulses are taken into consideration for public and social innovation, and which tools and methods are used.

Preliminary results can be drawn from research conducted so far in the Lake Constance Region within the research project “eSociety Lake Constance 2020” (Raffl & Grosse 2013; Raffl 2014). This includes (1) the identification of relevant stakeholders; (2) the screening and evaluation of good practice examples that meet the criteria of OSI; (3) interviews with initiators of selected OSI initiatives; (4) the launch of pilot projects to trigger OSI<sup>6</sup>; (5) questionnaires on the motivation of participants; (6) collection and evaluation of tools and methods (online, offline and mixed) that support OSI<sup>7</sup>. Research conducted so far is limited to the identification and evaluation of those stakeholders, participants, and best practice examples that are visible to outsiders, which means, that they are limited to past or ongoing projects.

The paper first provides background information on the understanding of OSI as OI for, within, and by society. In section three, classes of tools for OSI are introduced, briefly explained and use examples to illustrate its applicability to government organizations and civil society. Subsequently, some considerations regarding the use of tools are discussed.

## 2. Open Societal Innovation

Unlike governments, industries and businesses seem to have understood already years ago, that opening the boundaries of the firm can have a positive impact for an organization to gain innovative and creative impulses and perspectives from actors outside of their own knowledge-base. In business studies, opening up the boundaries of markets to their environments is called Open Innovation (OI) (Chesbrough 2003; 2006). It is argued, that “valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well” (Chesbrough 2006, p. 43). According to Gassmann and Enkel (2006) three key processes can be identified. The predominant one is the *outside-in process*, where ideas and know-how created outside of the specific market are integrated. Knowledge and ideas are primarily provided by actors from universities, think tanks and other research and development organizations. Suppliers, heavy or lead-users add to the group of relevant stakeholders. The *inside-out process*, in contrast, allows external users or customers to utilize ideas and know-how that would otherwise be kept secret in closed innovation markets. This process includes for example collecting charges or licensing fees or selling patents, which is common in the pharmaceutical market. The third process refers to coupling outside-in and inside-out innovation processes. This *coupled process* supports the development of standards and the emergence of new markets.

While in the business context, outside-in processes are prevalent, public sector innovation is often understood merely as an *inside-out process*. Innovation from public administration is thus targeted to (improve quality of citizens) and seeks to contribute to (regional) economic promotion. Current trends in Open Government (for example often reduce the concept to the provision of Open Government Data. Such an understanding can be understood as *inside-out process*, where business models are built around open available data.

Yet, innovation impulses from citizens and market actors can be taken up by politicians and the public administrators in order to improve government processes or to support their (local) public administration in accomplishing their duties (*outside-in*). Limiting OSI to an inside-out process solely thus bears the risk of underestimating and disregarding its full potential. To meet the challenges of today's glob-

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<sup>6</sup> Pilot projects launched are for example an idea competition for an exhibition in the National Museum of Liechtenstein, or a “mapping-party”, collecting, evaluating, and sharing information on places that are accessible with a wheelchair (Wheelmap, [www.wheelmap.org](http://www.wheelmap.org)) – to raise awareness for social inclusion of handicapped people.

<sup>7</sup> The results of the different studies conducted within the research project will be available by the end of 2014.

alized and complex world, politics and public administrations may benefit severely, when understanding innovation processes as a two-way street. OSI, thus, refers to what Gassmann & Enkel (2006) term *coupled innovation process*. Impulses can come from politics and public administration, as well as civil society and are used for mutual benefit. Von Lucke (2014a) argues, that OSI allows potentially good ideas and suggestions from citizens to be taken up and utilized for government's benefit. This increases opportunities for (political) participation and engagement and can thus decrease disenchantment with politics. Citizens can identify themselves with solutions to which they contributed which can lead to increased legitimacy of political decisions. As such, OSI may contribute to the democratization of politics, public administration and civil society (von Lucke 2014a). OSI describes the *careful* translation and application of open innovation approaches with the aim to create social, rather than mere economic, value.

Prevalent methods used in OI include the lead-user method, crowdsourcing, as well as toolkits and online platforms for communities – often combined with creativity or innovation competitions. Information and Communication Technologies (ICT), especially internet technologies, Social Media, Web 2.0 and mobile applications ("apps"), play a vital role for OI. By providing online platforms for coordination, community building, and cooperation which do not require attendance at a specific place or time, tools for innovation management and data platforms, ICTs can function as catalysts that spark innovation. ICTs are used to spread ideas and to foster creativity and collaboration. The ICT market already offers numerous Internet services, software and applications that harness OI.

Beyond customizing sneakers<sup>8</sup> or t-shirts<sup>9</sup>, ICTs also play an essential role to accelerate *societal* innovation processes. Using ICTs (such as online platforms, OI-toolkits, online innovation communities, etc.) to create goods, products and services that meet *societal* demands, however, are only in its infancy and appropriate tools only slowly emerge, often around the context of Open Government initiatives. This includes pothole-reporter systems like fix-my-street ([www.fixmystreet.com](http://www.fixmystreet.com)) or SeeClickFix (<http://seeclickfix.com>), as well as Open Spending platforms (<https://openspending.org>) and online visualizations<sup>10</sup>. These tools are often not easily applicable to innovative citizens' initiatives, but rather targeted to savvy users and/or government actors. However, there are numerous services and platforms already established in the business context that can be adapted and used with the aim to promote innovation in politics, administration and (civil) society. The challenge is to find and select the "right" tool, method, or format in order to achieve ones objectives (von Lucke 2014, p. 4). A database collecting tools and projects thus can help interested stakeholders from politics, public administration and civil society, to get inspiration on available innovation initiatives, tools and methods, which can be adapted or further developed to meet their goals and fit their context<sup>10</sup>.

Currently, a draft version of Henry W. Chesbrough's et al. (2014) recent book on "New Frontiers in Open Innovation" is online available. It contains a chapter on "Open Social Innovation" (Chesbrough & Di Minin 2014), investigating the role of OI for public agencies and non-profit organizations. The authors define Open Social Innovation (OSI) as "the application of either inbound or outbound open innovation strategies, along with innovations in the associated business model of the organization, to social challenges" (p.3), thus rather addressing openness in the context of *Social Innovation*. In their chapter, Chesbrough & Di Minin (2014, p. 3) argue: "To the best of our knowledge this is the first time that the open innovation framework is being applied to the social sector."

Already in 2010, Hilgers & Ihl apply the concept of OI to the public sector question as to whether OI principles can be transferred in order to reinvent public sector organization. The authors present a structural overview of how "external collaboration and innovation between citizens and public administrations can offer new ways of citizen integration and participation, enhancing public value creation and even the political decision-making process" (Hilgers & Ihl 2010, p. 67). They argue that "citizen-

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<sup>8</sup> Companies such as Adidas ([www.adidas.com/us/custom/\\_/N-1z12gjj](http://www.adidas.com/us/custom/_/N-1z12gjj)) or Nike ([www.nike.com/us/en\\_us/c/nikeid](http://www.nike.com/us/en_us/c/nikeid)) provide online toolkits so that customers can customize sneakers to meet their taste, desire and demand.

<sup>9</sup> For example Spreadshirt ([www.spreadshirt.com](http://www.spreadshirt.com)) allows to either create t-shirts or to shop among best-selling designs of others.

<sup>10</sup> This is the aim of TosiT – The Open Societal Innovation Toolbox, as mentioned above.

sourcing” – a term first introduced by Lukensmeyer & Torres (2008) – describes “the design and configuration of a new relationship between a government and its people, based on a set of emerging practices and principles applied from the private sector” (Hilgers & Ihl 2010, p. 72). Encompassing the understanding of crowdsourcing, citizensourcing is “the act of taking a task that is traditionally performed by a designated public agent (usually a civil servant) and outsourcing it to an undefined, generally large group of people [...]” (ibid). Accordingly, a framework for citizensourcing includes three dimensions: (1) citizen ideation and innovation, (2) collaborative administration, and (3) collaborative democracy (pp.73-81).

OSI as it is understood in the context of this paper refers to both, open innovation in the social sector (Chesbrough & Di Minin 2014) as well as in the public sector (Hilgers & Ihl 2010). A broader discussion on this concept is provided by von Lucke et al. (2012).

### **3. Classes of OSI-Tools and their Application & Implementation**

Open societal innovation (OSI) is enabled through the means of ICTs and includes online services, platforms, and software applications (i.e. “tools”) to enhance innovation for, within, and by society. OSI-projects discussed below use market-ready tools that were often developed in the business context but utilized by citizens and/or governments to meet their goals and desires. Tools are categorized in “classes of tools”, i.e. they are clustered based on the main purpose they seek to serve. This includes collaboration platforms and online portals that enable (1) idea gathering, (2) problem collection, (3) problem solving, (4) design development, and (5) innovation management. The following sections describe each of these tool classes in more detail<sup>11</sup>. Each section lists some examples of software and platforms. For each class of tools practical examples of application or “real-life” implementation are presented for illustration purpose. This list, however, is neither exhaustive nor representative and is used for qualitative evidence solely (von Lucke 2014b).

**Table 1** at the end of this section provides a comprehensive overview of the following discussion. The table is the summary of the paragraphs below and consists of (1) the name of the tool class, (2) a short description of the main task or service, and (3) practical examples of application or implementation.

#### **3.1 Ideas – Tools for joint collection and evaluation of ideas**

The tool class “ideas” includes software, online services and platforms for idea management, joint brainstorming, joint Mind Mapping, or idea contests. Software of this category includes for example MeetingSphere for common online brainstorming and idea review, CrowdWorx, the Innovation Power Plant (Innovation platform in Germany, used for “Land of Ideas<sup>12</sup>”) or IdeaScale.

IdeaScale, for example, was used by U.S. President Barack Obama in 2009 to initiate a dialogue with the public. Among other things, citizens were asked about their opinion on how the US-Government could work more transparent, participatory and efficient in order to better meet their demands. Citizens are invited to submit ideas, discuss and refine others' ideas, and vote the best ones to the top (<http://opengov.ideascale.com>). At the end of the campaign, over 4,000 proposals were submitted with a total of 26,000 comments of approximately 15,000 users.

Another example of application within this tool class is “George’s Ideas Lab”. Bristol’s Mayor George Ferguson sought to position the city as a thought leader for new ideas. New solutions should be found, for example, to make financial savings or to position the city as the “European Green Capital” by 2015. Thus, the Bristol City Council cooperated with Dialogue App to gather innovative ideas and to collect proposals of citizens. Some 300 ideas were submitted, accompanied by thousands of comments

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<sup>11</sup> The choice on these classes of tools is the work of an ongoing, iterative process in finding and defining ontologies for OSI within the research project “eSociety Lake Constance 2020” and is thus only preliminary.

<sup>12</sup> “Germany – Land of ideas” is an initiative which aims at positioning Germany as a powerful innovator, encompassing both politics and business, founded by the federal government and the Federation of German Industries in 2005 (<http://www.land-der-ideen.de/en/about-us>).

and ratings (<http://georgesideaslab.dialogue-app.com/ideas>). Dialogue App's aim is to "[s]olve policy challenges with the input from citizens" ([www.dialogue-app.com/info](http://www.dialogue-app.com/info)).

### **3.2 Problem Collection – Tools for collecting and evaluating challenges and complaints.**

This tool class comprises of online services, platforms and software applications that support idea management and crowdsourcing around certain problems. Typical examples in the government context are platforms like pothole reporter systems, such as mySociety's "fix-my-street" ([www.mysociety.org/projects/fixmystreet](http://www.mysociety.org/projects/fixmystreet)).

Fix-my-street is open source software and provides a customizable desktop and web version as well as mobile applications for both Android and iPhone operating systems. Fix-my-street asks citizens to "report, view, or discuss local problems" ([www.fixmystreet.com](http://www.fixmystreet.com)) and is meanwhile used in numerous municipalities, especially in the UK. Since April 2013 the City of Zurich, Switzerland, launched a pilot project "Zueri wie neu", which translates as "Zurich good as new"<sup>13</sup>. "Zueri wie neu" is part of "eZuerich-initiative", an idea platform for visionaries, enthusiasts and digital pioneers. The initiative started with an idea competition among local people in November and December 2010 and invited citizens, business, science and government to contribute with ideas and suggestions, and thus corresponds to the principle of open societal innovation. "Zueri wie neu" is a fix-my-street based application to report defects on the infrastructure in the City of Zurich either via smartphone app or a website. The portal is transparently hosted by the city administration of Zurich. Reports are distributed internally to the responsible authority within the public administration which promises to deal with the issue within five working days.

Pothole report systems such as fix-my-street, or SeeClickFix support citizens to take responsibility for their community. Citizens can easily document and report defects, provide suggestions for solving local problems and contribute actively to a safer, cleaner, and more livable environment. In addition, new and innovative ideas from the public can diffuse into the public administration.

### **3.3 Problem Solving – Tools for joint problem solving and online expert networks.**

Typical applications for this tool class are collaboration platforms, or citizen portals. A well-known example of a platform for problem solving is InnoCentive ([www.innocentive.com](http://www.innocentive.com)). InnoCentive is an electronic marketplace that brings together people with a specific problem and problem solvers. Problem solvers within the InnoCentive community are distributed around the world and comprise of scientists, academics, students, or engineers, with specific expertise in their fields. Currently, there are about 300,000 users from 200 countries. Winners of idea competitions within the InnoCentive community can expect quite substantial cash rewards.

The idea for InnoCentive already emerged in the late 1990s in the context of the pharmaceutical industry and was finally realized in 2001. Initially, topics for InnoCentive revolved around problems in engineering, chemistry, life sciences, business and the like. Meanwhile, InnoCentive also provides solutions for nonprofit organizations and state actors (see InnoCentive, group Government Innovation). AirForce Research Labs, NASA, or the Oil Spill Recovery Institute reach out to the globally spread knowledge and expertise of problem solvers to find solutions to their problems at relatively low risk and cost-efficiency.

The City of Boston, MA found a quite practical solution to severe problems in the streets through problem solvers of the InnoCentive community – "Street Bump"<sup>14</sup>, available as mobile application.

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<sup>13</sup> „Zueri“ is the colloquial swiss name of Zurich.

<sup>14</sup> Street Bump is basically a pothole detector. Unlike the above discussed pothole reporter systems (see 3.2, Problem Collection), it is not citizens who report potholes, but their smartphones. Acceleration and position information is collected, linked and forwarded to the responsible office. Hence, these linked big data are used to predict with a certain probability as to whether there are obstacles or damages in the street. For more information see <http://www.innocentive.com/innocentive-and-boston-mayor-thomas-m-menino-announce-winners-challenge-convert-big-data-pothole-rel>.

The aim of this app is to faster report damages and obstacles in the street to the responsible officer in the responsible public administration of the city. This should lead to improved services and reduced (public) spending (see for example Simon 2014).

Similar to InnoCentive is Atizo ([www.atizo.com](http://www.atizo.com)) with headquarters in Berne and Zurich, Switzerland. Atizo developed from a research project at the University of Bern in 2007 with the support of the Commission for Technology and Innovation (CTI)<sup>15</sup>, a Swiss Federal Administration's decision-making body for the promotion of innovation. Similar to InnoCentive, Atizo relies on an international knowledge community for crowdsourcing, provides access to an expert community and helps developing innovation and collaboration platforms. The Canton of Aargau, for example, utilizes the “wisdom of the crowds” of the Atizo community. Together with Atizo, the public administration of the Canton of Aargau developed an online platform “denk mit!” (which translates as “let’s think together”), which invites the public servants of the Canton to work together and share ideas in order to find solutions to regional challenges and problems. The idea management platform replaces the previous suggestion system. It has been implemented successfully in seven departments and reaches around 5,000<sup>16</sup> potential users in the region.

### 3.4 Design Platforms

Design platforms provide tools for creating logos and websites and can be used, for example, by sports clubs, cultural organizations or cities that require a new (heraldic) design. Users most often do not cooperate and co-create products, but rather compete against each other in design competitions. Well-known platforms are 99designs (<http://en.99designs.de>) or 12designer (<https://www.12designer.com>).

Early 2012, the Principality of Liechtenstein launched a design competition and invited the population to participate by submitting proposals. The aim was to re-define the “Identity and Brand Liechtenstein” by creating a new logo for the Principality. The competition was open to the public, but directed primarily to graphic designers and design agencies in Liechtenstein and other European countries. Between January 17 and February 20, 2012 proposals were submitted. A total of sixty submissions were reviewed and selected by a panel chaired by Prince Alois of Liechtenstein. Subsequently, the population was invited to participate in a voting for one out of these sixty design suggestions. Overall, more than 14,000 people residing in Liechtenstein casted their vote. This corresponds to a voter turnout of 45 percent of the overall population. The winning draft was submitted by a London-based graphic designer and typographer born in Liechtenstein. He was awarded 30,000 Swiss francs.

In the context of the research project “eSociety Lake Constance 2020”, the project team reached out to the “crowd” of 12designer (<https://www.12designer.com>) and asked for a logo for their research project. About ninety different logos were submitted by about twenty different contributors<sup>17</sup>.

Logos and visual signs are often seen as important for the identification of communities. These examples demonstrate that even with limited budget, creative and innovative products can be developed for a community.

### 3.5 Innovation Management

The classes of tools that match the category “innovation management” include tools and platforms that help to encompass the entire innovation process – from idea generation to selection and evaluation of ideas to implementation. These tools allow the joint implementation of projects and also rely on the

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<sup>15</sup> which provides support for start-ups and entrepreneurs, knowledge and technology transfer as well as R&D funding.

<sup>16</sup> While 5,000 is – especially compared to the 300,000 members within the InnoCentive community – to neglect, the quality of the solutions can be as good, since these 5,000 people are “experts in their community” and thus can have a sound understanding of what needs to be done.

<sup>17</sup> See <http://esocietybodensee2020.wordpress.com/2013/03/06/das-esociety-bodensee-2020-logo-entwickelt-in-einem-crowdsourcing-wettbewerb> for more information in German. For inquiries in English, please contact the author at [celina.raffl@zu.de](mailto:celina.raffl@zu.de).

community. Certain toolkits can help as well as specific management software. The technology sometimes is freely available, source code is often open. Thus, the tools can be adapted according to specific needs and be integrated into the existing (software) infrastructure. Usually, an organization or public administration does not pay for the software license, but for implementing software or training staff.

Hyve AG innovation community (hwww.hyve.de) can be considered an example for innovation management. Together with the Bavarian State Chancellery Hyve launched the initiative “Aufbruch Bayern” (translated as “Bavaria on the Move”) to initiate a civic dialogue on questions regarding the future of the Free State of Bavaria. From mid-June to mid-August 2010, citizens of the Free State were invited to submit proposals to solve Bavaria’s challenges and to comment on suggestions. Topics discussed ranged from family issues to educational innovation. During the survey period more than 400,000 people visited the platform, they formulated 740 ideas which were discussed in almost 7,000 postings and were rated more than 11,000 times (Koch & Rapp 2011, online). The best proposals were awarded by the Bavarian Cabinet.

Below is a summary of tool classes, their short description and examples of application and implementation (Table 1).

<b>Tool Classes</b>	<b>Description</b>	<b>Application &amp; Implementation</b>
Ideas	Ideas collection and/or evaluation of ideas and proposals	<ul style="list-style-type: none"> <li>• President Barack Obama's call for participation via IdeaScale</li> <li>• "George's Idea Lab" (Bristol City Council)</li> </ul>
Problem Collection	Collection and/or evaluation of problems, challenges, complaints (e.g. pothole reporter systems)	<ul style="list-style-type: none"> <li>• “Zueri wie neu”, based on fix-my-street;</li> <li>• SeeClickFix</li> </ul>
Joint problem solving	Problem solving or collaboration platforms (e.g. knowledge and expert communities)	<ul style="list-style-type: none"> <li>• “Boston’s Street Bump;” app via InnoCentive</li> <li>• “Denk mit!” – Idea management platform for the Canton Aargau together Atizo</li> </ul>
Design Platforms	Common forms of content that can be customized (e.g. design competitions, design platforms)	<ul style="list-style-type: none"> <li>• “Identity and Brand of the Principality of Liechtenstein”</li> <li>• Logo Competition for the research project "eSociety Lake Constance 2020" via 12designer</li> </ul>
Innovation Management	Joint implementation of projects – from idea to implementation (e.g. toolkits)	<ul style="list-style-type: none"> <li>• “Aufbruch Bayern” (“Bavaria on the Move”) with the Hyve AG Innovation Community</li> </ul>

Table 1: Summary of OSI-tool classes with description and examples of use

#### 4. Considerations for the Use of OSI-Tools

Before opening innovation processes, interested actors need to scrutinize as to whether the integration of external knowledge is desired at all. Very often, relevant stakeholders come to the conclusion that the risks and disadvantages of such an open approach outweigh their benefits. If the answer, however, is in favor of the integration of external stakeholders and external knowledge, the next question is, at what stage of the innovation cycle, integration of participants is desired and seems appropriate. Stakeholders can be integrated during different innovation phases. This ranges from (1) the early phase of idea generation and specification, via (2) concept definition, and (3) evaluation or selection of con-

cepts, to (4) the phase of realization or implementation (assuming a simple, sequential innovation model; see for example Homburg & Krohmer 2003, 462-499). Integrating stakeholders in the innovation process can cause a “problem of timing”. If, for example, stakeholders are involved in a very early phase of the innovation, it might become more difficult to reach the desired outcome or common goal. If, however, they are integrated too late, certain decisions might already be made. This can leave the impression, that ideas, impulses and desires of participants are not actually welcome. Furthermore, the question of “openness” within the open innovation process has to be answered. Should an initiative be open “to all” or only to “relevant” stakeholders? Including all stakeholders (i.e. groups or individuals who are somehow affected), however, makes innovation processes way too complex to handle and outcomes are unpredictable. If, on the other hand, less stakeholders are integrated, one risks to cause blind spots or to miss important impulses and ideas. In this context, it is also important, to address the right (relevant) groups. Wrong audiences might lack motivation or interest in contributing. Even worse, there is also the possibility that some actors only participate to enforce their ideologies, or to harm the organization. For a compact analysis of strengths, weaknesses, opportunities and risks of OSI, see von Lucke (2014b).

## 5. Summary and Outlook

The underlying argument advanced in this article, is that increasing openness and cooperation among representatives from politics, public administration and civil society, all actors mutually benefit from new ideas and impulses. Many examples, only few of them discussed above, already demonstrate the timeliness and appropriateness of an open innovation approach for, within, and by society. It is therefore necessary to spark the innovative potential of all relevant stakeholders to gain new ideas and solutions. Information and communication technologies (ICTs) are important catalysts to spread these ideas through supporting interaction of interested actors.

Numerous online services, platforms, and software applications are already available. Their further development as well as the emergence of new platforms, software and applications will not be long in coming. The difficulty is, to find the right tool to specific questions and challenges, choose the right time and phase to open up innovation processes, address and include relevant stakeholders, and to involve and motivate them. The OSI-approach presented in this paper provides first practical examples for understanding these issues and underlying challenges. Ultimately, successful implementation of such projects not only requires the knowledge and the transparency of tools available on the market. In fact, it is also essential “to transfer the knowledge how to work with these tools and services. Initiators, coordinators and activists, which have high hopes for their concerns, must be [...] trained how to use these services. It is crucial to create the necessary creative environment [...]” (von Lucke 2014b). A first overview of the possible use of OI tools for innovation at the interface of politics, public administration, and civil society was given in this paper. The implementation of open social innovation (OSI) has to stand the proof in the field. This requires the support of highly motivated and committed actors from politics, administration and civil society.

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