

Lessons learned about Open Innovation within the Project „Leipzig Open Data Initiative“

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Preliminaries

Open Innovation is a dazzling concept. The relevant management literature¹ usually attributes its introduction to a paper of Henry Chesbrough published in 2003. But one can hardly ignore that the *practical* importance of such a concept – at least in the wording of the German Wikipedia² – has to be dated back much further.

The management literature is full of reports about failing attempts to roll out an *Open Innovation Process* in classically deployed enterprises, that try to set it up in a *controlled* way. This indicates that within *successful* Open Innovation Enterprises *Open* should be rooted more deeply in their cultural and business philosophy. It seems that Open Innovation works best in such business environments where open access to and open management of knowledge resources is practiced in a way consistent with appropriate *new business models* although such questions are rarely touched in the literature. The majority of papers instead stresses the advantages and disadvantages of different Open Innovation instruments and approaches regardless of the underlying business culture. We refer to these classical concepts as *controlled Open Innovation*.

Surprisingly enough, experiences, best practices and self-reflections of IT and high tech enterprises, successfully implementing Open Strategies, seem to play a very minor role in the recent management literature about Open Innovation. The change from market leadership to technology leadership as strategic business orientation, carried out, e.g., by IBM already in the early 1990's, seems to be unnoticed by that academic community. The same applies to the trench warfare about the notion of *Open Source* vs. *Free Software* around 2000 that shattered the Open Source scene³ and led to a sharp boost of the *Open Source Initiative*⁴, a “California public benefit corporation”, from its foundation by some farsighted volunteers in 1998 (mainly driven by Bruce Perens) to one of the most influential world business organizations on the sentinel to keep *Open* really open. Most of such practices are highly agile – Linus Torvald's famous answer⁵ “But I won't” to Tanenbaums question “How will you control the work of thousand prima donnae?” as early as in 1991 is a turning point – and the core of the experiences with agile approaches within the AKSW⁶ group at the Leipzig University is that one hardly can overestimate their importance. I refer to these concepts as *agile Open Innovation*.

1 See, e.g., Martin Stoetzel, Martin Wiener: Challenges and Dilemmas in Open Innovation: Ambidexterity as Management Approach". *Wirtschaftsinformatik Proceedings 2013*. Paper 32. <http://aisel.aisnet.org/wi2013/32> (2.6.2013)

2 The concept **Open Innovation** refers to the opening of the innovation process of organizations and thus the active strategical use of the outside world to improve the innovation potential. (Source http://de.wikipedia.org/wiki/Open_Innovation, 2.6.2013)

3 See, e.g., the film „Revolution OS“, <http://www.revolution-os.com>. (2.6.2013)

4 <http://opensource.org> (2.6.2013)

5 In detail explained in http://de.wikipedia.org/wiki/Andrew_S._Tanenbaum. (31.07.2013)

6 <http://aksw.org>

Already in 2005 I identified in a paper about *power of knowledge in a modern society*⁷ two basically different business strategies – the classical one based on *advantage of information*, and the new one based on *advantage of competency*. Whereas the first approach counts *information* as a value good itself, the second one emphasizes, that only *knowledge* acquired by people really counts. Whereas the first approach tries to secure information with intellectual property rights, the second approach emphasizes, that information, openly published *today*, requires time to be converted into knowledge by the competitors. Time, that allows for extra profit even over competitors that really estimate the new knowledge and try to acquire it in short times with own expenses. Even worse for competitors that miss the right time – after a while they will be completely under market pressure if the new knowledge turned to be *state of the art*. To summarize, the first approach (information advantage) is a statical, the second approach (competency advantage) a highly dynamical one. I'm very convinced, and many practical observations emphasize it, that Open Innovation can be exploited in a useful way only by enterprises following the second strategy.

A second deficit of current debates is a clear recognition of the differences in openness conditions between *product innovations* and *technological innovations*. Product innovations⁸ emerge *along* value chains and require cooperation of producers in *different* market segments to raise synergy effects. The main obstacle for cooperation is an equitable distribution of the overall surplus value – collected at the end of the value chain – between the partners that are *not* direct market competitors. The situation is completely different for technological innovations – they have to be implemented by competitors in the *same* market segment, i.e., *across* value chains. It is a bare challenge “to network and not to network” (W. Göhring⁹) and requires *the cooperation of competitors* in a very special way – acquire the new technological knowledge and experience in a common process and turn that process into a competitive edge to supply specialized services based on the new technology. Nowadays this requires combined efforts of SME, academia and regional economic development structures. Moreover, to maintain technological innovations in due time is of much more importance for the *performance of an economic region* (Standort) as a whole compared to successful implementation of technological innovations in single SMEs. The *Leipzig Open Data* project addresses such a technological change.

The call *Open Innovation 2012*, issued by the Office for Regional Economic Development (AfW) did not reflect such aspects at all but restricted to product innovations within controlled Open Innovation concepts.

The projects should address the „Open Innovation“ theme in the different subbranches of the Creative and Media Industries. Nowadays innovations evolve rarely from closed enterprise areas. The success of an enterprise (or an innovation) heavily depends on the ability to establish networks and cooperations with external partners along the value chains. „Open Innovation“ is characterized as an interactive, distributed open process running between enterprises, universities, startups, suppliers, customers and even competitors. (From the Project Call)

Both the specific conditions for technological innovations and the core role of promotion and supervision within regional economic development structures are not addressed. This indicates that our own experiences around Leipzig Open Data are best described as *Open Innovation within Open*

7 Hans-Gert Gräbe: Die Macht des Wissen in der modernen Gesellschaft. In: Utopie kreativ 177/178 (2005), S. 629–643.

8 This includes *service innovations* – I will not go into detail about the differences between both in this text.

9 W.Göhring: Mittels Informations- und Kommunikationstechnik die Warenproduktion dialektisch aufheben? (1999). In J.Becker, W.Göhring: Kommunikation statt Markt: Zu einer alternativen Theorie der Informationsgesellschaft. Sankt Augustin: GMD Forschungszentrum Informationstechnik, 1999 (GMD Report 61), ISBN: 3-88457-970-3. pp. 129–140.

Innovation, i.e., if we combine it with a reflection of the handling of the Open Innovation 2012 Call as part of a greater Open Innovation challenge for regional economic development structures – the *Outer Open Innovation Process* for short.

Methodology

Not to end up with arbitrariness, Open Innovation requires a clear set up:

1. Formulate the *main goals* and targets of the process.
2. Formulate an *initial scope* of the project from a realistic analysis of players, stakeholders and the state of the art.
3. Identify permanently *new opportunities* and integrate them into the scope of the project.
4. Provide *regular assessments*, reformulate and refine the scope of the project.
5. Use *agile planning* and rearrange resources according to changes in the scope of the project.

The **main goal** of the Leipzig Open Data Initiative can be formulated in the following way:

Promote technological opportunities and experience with the new and challenging Semantic Web technologies (focused on RDF based technologies) and build up a regional network of competency on Semantic Web technologies with and for SME.

For such a technologically driven Open Innovation goal well balanced activities from

- an academic background that provides knowledge about the new technology and access to knowledge networks,
- the regional economic development structures that are open minded to the new technology
- and local SMEs that understand the value and are open to acquire the new technological knowledge

are essential. From the very beginning only the academic part of such a *magic triangle* could be clearly identified – the AKSW group at the Leipzig University. Although having european wide reputation the group is not well recognized over years neither by AfW nor by the local SMEs.

Here comes in another crucial point of Open Innovation. Different stakeholders with – in some cases very – different motivations and goals have to create an agile common cooperation context that can be pushed or even influenced administratively in a very restricted way only. They have to agree about a *common goal* that all involved parties are *inherently* interested in and have to adjust it regularly to changing circumstances in such a way that the involved parties remain interested in cooperation.

Concerning the Outer Open Innovation Process driven by the AfW this text cannot consider the full methodological cycle since we entered it as an ongoing process in a restructuring phase – the main Open Innovation focus directed in the call to “the different subbranches of the Creative and Media Industries” as primary driving forces was extended to include also academically driven projects.

Such aspects heavily influenced the scope of the Leipzig Open Data Project and are reflected in the difference between our main goal as formulated above and the summary given in our final project proposal as intermediate result of the ongoing Outer Open Innovation process:

The goal of the project is the continuation of the processes started with API Leipzig towards a *Leipzig Open Data Initiative* as core of a *Competence Center on Open Data Technologies*, that opens and bundles in a local Open Innovation Support Center the technical expertise of the Leipzig Open Source Scene and the academic knowledge of

relevant academic institutions to support and consolidate the technological base of web SME in the region in the area of Open Data technologies. The project is implemented in tight cooperation with the API Leipzig Working Group and aims at sustainably strengthen its academic background.

Below we describe the process of project shaping and realization in more detail for the different phases of our project including preproposal and postproposal phases according to the *Open Innovation within Open Innovation* approach:

1. Preproposal Phase – identify the opportunities and main partners.
2. Shaping Phase – compile the proposal and get it accepted by the board.
3. Planning Phase – prepare the operative project roll out, set up the initial scope, plan project steps, milestones and artifacts, initialize the main processes and infrastructure.
4. Execution Phase – run the project within the prepared scope, regularly adjust the scope.
5. Final Milestone Phase – use project resources to collect and solicit the results and to compile the lessons learned.
6. Post Project Phase – use project resources to prepare and adapt the infrastructure and the achievements to the post project conditions, where the project resources are no more available.

Preproposal Phase

During the preproposal phase we had to analyze players, stakeholders and the state of the art realistically and to formulate an initial scope of the project.

The project proposal grew up from former efforts within the MINT-Leipzig network¹⁰ and the Zukunftsakademie to use RDF technologies to collect and provide open information about players, projects and cooperations within these networks.

We identified the following stakeholders

- AKSW group at the Leipzig University – an european wide recognized center of research on Semantic Web technologies.
- MINT-Leipzig Network – a loosely coupled association of people and organizations to promote regionally the importance of MINT.
- NetProject at the Leipzig University (within the EIS – Enterprise Information Systems Division¹¹) – a bundle of activities to address discussions and reflections on the challenges of digital change at different levels, with resources leo-net (mailing list) and the leipzig-netz.de wiki.
- Zukunftsakademie¹² (ZAK) – a spin-off of regional nonprofit players to raise awareness of problems of regional sustainable development.
- Office for Regional Economic Development (AfW) – the department of the urban administration responsible for promotion of regional economic development.

10 MINT abbreviates Mathematics, Informatics, Natural sciences, Technics and stands for activities to join forces at all levels to ensure that appropriately skilled people will be available also in the future. Learn more about the MINT-Leipzig network at <http://www.mint-leipzig.de> (in German).

11 <http://bis.informatik.uni-leipzig.de>

12 <http://zak-le.de>

- Kreatives Leipzig¹³ – a regional association of SMEs in the Creative Industries to promote their needs, organize networking and public awareness of their challenges.
- API Leipzig¹⁴ – a project to “develop a standardized interface to access public data of the Leipzig urban administration” promoted until 2012 within the EU project *Creative Cities*¹⁵.

The project grew up from several preproject activities:

- The *ZAK Data Project* – efforts to establish an RDF based open collection of data about the players, projects and events within ZAK.
- Other RDF based projects within AKSW.
- A series *Leipziger Gespräche* in spring 2012 within the NetProject that analyzed different aspects of the ongoing digital change in Leipzig.
- Several activities organized by *Kreatives Leipzig* and *API Leipzig*.

The *Open Innovation within Open Innovation* idea grew up from two meetings in 2012:

- 13.06.: “Kreatives Leipzig – wohin?” Final event within the series “Leipziger Gespräche” with Michael Körner (AfW), Stefanie Bamberg (Kreatives Leipzig) et al.
- 20.07.: Meeting within the MINT-Leipzig Network, where Johannes Frey presented a first prototype to visualize the data collected so far within the ZAK Data Project. With Michael Körner (AfW), Ralf Elsässer (Leipzig Agenda Group, ZAK), Mathias Petzold (API Leipzig) et al.

M. Körner suggested to apply with a proposal on Leipzig Open Data to the AfW *Open Innovation 2012 Call* even if the focus of the call¹⁶ was neither Open Data nor an academic project. The challenge was twofold: we had to compile a proposal that exemplifies Open Innovation on the target of Open Data, and to check how far the board does accept agile Open Innovation concepts. And the time schedule was quite sportive: from the first idea (20.07.) to the deadline of the call (05.08.) we had two weeks. The call emphasized that the projects should be realized between October 2012 and March 2013 and cannot last beyond end of March 2013 due to financial restrictions.

As already explained that offer was part of a readjustment of goals within the Outer Open Innovation Process. To open the call in such a way was not undisputed. Note the harsh reaction¹⁷ from “Kreatives Leipzig” in a written comment on 01.08. that criticizes the management of the call for proposals by the AfW. “Kreatives Leipzig” acted once more as lobby organization for the local Creative Industries that focuses mainly on economic aspects and community building. “Kreatives Leipzig” uses for that purpose controlled Open Innovation methods within its own activities but in the following its representatives in the board showed to be unable to open itself for and even to understand the differences to an agile Open Innovation culture.

To shape the *initial scope* of our project we proposed a classical agile Open Innovation rollout (project setup, role of maintainers, mailing lists, repositories and tracking systems, collaborative

13 <http://kreatives-leipzig.de>

14 <http://apileipzig.de>

15 <http://www.creativecitiesproject.eu>,
http://www.leipzig.de/de/business/wistandort/international/eu_proj/creative-cities/

16 From the call: “Under the tender, a total of 7 projects or project ideas from subsectors defined in the cluster development strategy of the city of Leipzig should be selected and financially supported.” See <http://www.leipzig.de/de/business/newsarchiv/2012/Open-Innovation-Projektvorschlaege-im-Bereich-Medien-und-Kreativwirtschaft-gesucht-23490.shtml>

17 <http://www.kreatives-leipzig.de/allgemein/statement-von-kreatives-leipzig-e-v-zum-wettbewerb-open-innovation-der-stadt-leipzig.html> (01.08.2013)

wiki based agile open development processes etc.) for a self-supporting process centered around self-commitment of stakeholders.

Shaping Phase

With such an initial setting we started the shaping phase and tried to understand how far the identified stakeholders will join the process.

- InfAI – the Institute for Applied Informatics, an institution associated with the Leipzig University to host projects, hosted the project and provided resources from overhead expenses of other projects to get our project starting smoothly.
- AKSW group at the Leipzig University – within a permanent consultancy process we managed to make technical experience from the AKW group accessible for our project.
- MINT-Leipzig Network – we joined forces with the network to push forward the data project as common project.
- ZAK – they focused on other projects, we could establish only punctual cooperation.
- Kreatives Leipzig – we started several contact attempts but found only little disposition for cooperation.
- API Leipzig Working Group – we found a loosely coupled community of web designers, IT specialists and freelancers around the API Leipzig project, supported by the AfW until 2012 and represented to us by M. Petzold and M. Gamnitzer.

On 01.08. we discussed the matter of affairs with M. Petzold and learned more about the current potential of the API Leipzig project and the half dozen of practical followers yet working on topics close to the project. Taking into account the very loose coupling within the existing API Leipzig context we agreed to set up the project's initial scope in the already planned way as agile Open Innovation referring to the common experiences within Open Source projects and to use the leo-net and API Leipzig mailing lists for communication purposes.

Early in the shaping phase the board articulated its interest to see the project developing as common project with the API Leipzig Working Group, to access web service providers through the API Leipzig context and strongly suggested to shape that with *Letters of Intend* as an approved instrument of controlled Open Innovation. On such basic agreements we compiled a first version of the project proposal and submitted it to the board.

On 17.08. we were informed that the proposal is accepted in principal and were asked to give a presentation on 11.09. to discuss adjustments of our project proposal for final acceptance. Such a two step evaluation process is well known for project proposals, but is usually announced within the project call, so we were surprised about the modification. From an Open Innovation point of view it were quite helpful

1. to get more response about the project evaluation from the referee process, e.g., written comments from the referees to prepare the presentation,
2. and to gain more information about the other accepted project to get in contact with them and search for synergies.

No such information was provided until 11.09. and even information about the referees, the other projects, their evaluation and their presentation schedules were kept secret – a very discouraging atmosphere for Open Innovation. Since two of the project proposals were almost directly connected with the AKSW group and a third project was proposed by another group within the EIS division we got aware about three of the proposals. There was some rumor about a fourth proposal but this

proposal did not pass the second evaluation and was finally not accepted. Up today I haven't seen public information about that project.

Let's summarize the situation so far: Three project proposals with mainly academic background and probably one project with SME background passed the first evaluation round, the board spent much efforts to prevent contacts between the different project teams, and the representatives from "Kreatives Leipzig" openly expressed their dissatisfaction with the whole ongoing process. Hence we were not surprised that the representatives from "Kreatives Leipzig" rated our project negative and refused to cooperate in the following.

We presented our proposal on 11.09. at a meeting of the project board. The board evaluated the proposal positive with the following advices that M. Körner (AfW) sent us on 14.09.:

- 1.) The board highly valued the great potential of the project's idea to exemplify Open Innovation in Leipzig.
- 2.) The board asked to include in the project more strongly activities that directly address the Open Innovation idea. For example, early involvement of more projects and stakeholders around Open Data, customers and enterprises using Open Innovation methods and tools.
- 3.) The board asked to bind these partners by Letters of Intend and to include their additional costs into the overall calculation.
- 4.) The board asked to divide the project more visible into two parts. Within a first phase we should acquire relevant stakeholders and set up the networking, in a second phase we should identify and prototypically implement tools and concepts.

The difference in understanding of Open Innovation clearly emerges, the board favored a controlled process that we tried to shape organizationally in the revised project proposal. Note that 2.) and 3.) were partially illusionary, since one of the aims of our project was to *identify* SMEs that are willing to join forces with the project. We received a single Letter of Intend from M. Petzold as the head of the API Leipzig Working Group.

We were asked to submit a revised proposal until 28.09. Thus the original time schedule proposed within the project call turned out to be obsolete. A revised proposal was compiled within a week. On 09.10. M. Körner (AfW) informed us that the revised proposal was accepted by the board in principal but requires some more adjustment concerning the role of the API Leipzig Working Group to be finally accepted.

Following 4.) the final project proposal, submitted on 16.10., proposed to divide the project into a first phase (consolidate available data, identify three pilot projects within a hackathon to be implemented) and a second phase (implement and evaluate the selected pilot projects). The financial framework was – in accordance with the board – extended to pay for the expenses of the (potentially cooperating) SMEs within the pilot projects. Due to the quite long and ongoing revision process we agreed with AfW to schedule the project for months 11-12/2012 (first phase) and 01-04/2013 (second phase). We received the final decision about acceptance on 07.11. and thus had to postpone the project start for another two weeks. Finally, the project started on 12.11.

All this we discussed at two Seminars on 27.09. and 12.10. In particular on 12.10. we scheduled presentations of several related projects:

- Project ProCamp (Michael Becker, Uni Leipzig) – another project within the *Open Innovation 2012 Call*,
- eBusiness-Lotse Mitteldeutschland (Dr. Kyrill Meyer, Uni Leipzig),
- Project AWIP (Dr. Thomas Riechert, Uni Leipzig) – the third project within the *Open Innovation 2012 Call* (the presentation was postponed to the Seminar on 02.11.) and

- Status of API Leipzig (Martin Gamnitzer)

and exchanged information about the status of progress of the applications for the different projects.

Planning Phase

Due to the long lasting shaping phase we were forced to do shaping and planning in parallel. We had to apply agile planning methods since new requirements posed by the board required several replannings of the project. One of the main problems of the lasting decision process was that of human project resources that were planned and ready to start working since 01.10. and the requirement not to start project activities before the written consent.

We resolved that dilemma embedding the project into a broader scope within the InfAI environment. We could use overhead expenses from other projects to order the domain leipzig-data.de and to start a first data transformation process, since in our concept the availability of a core of data about local processes following the technologically new and promising Linked Data standard played an essential role that – already visible at that point – was not honored as independent value neither by the board nor by most of the people in the API Leipzig context.

To reach a common consent about the initial scope of the project we formulated and discussed a conceptional document¹⁸ containing a *vision*, general principles about the *technical and legal design* of the forthcoming Leipzig Data Cloud and an analysis of the *value creation processes* of our target group.

Different to the value chain model favored by the board we followed the model of *levels of value creation* that reflects much better the dependencies in a service oriented business world. Stakeholders at the second level of value creation as, e.g., providers of web services, *support* the core business of their clients at the first level of value creation, hence are part of the *infrastructure* of the latter, and the services of the former count as *investments* for the latter. The same applies to the service proposed by the project to the community of local web service providers – supporting technological advancement is a service at the *third* level of value creation and only of interest to local web service providers that understand the value of such an *investment*.

A short term project as ours can do no more than set up and promote pilot projects in the desired direction. Hence in a *first attempt* we formulated as initial scope

- to start the project on 01.10., to get in contact with interested local web service providers via the API Leipzig Working Group,
- to identify within a hackathon¹⁹ (mid of November) clients and pilot projects to be realized that show the advantages of the new technology,
- to complete the projects in tight cooperation with regular exchange about the advances at the Seminar and
- to use that process to strengthen the regional Open Data infrastructure and to form a competence center for Linked Data technologies.

Already the first efforts to detail such a scope with API Leipzig were quite disillusioning. Most of the local web service providers are freelancers or very small enterprises that are regularly under big market pressure and usually have a rather informal understanding what investment means. Our first proposal – directly implementing the advices of the board – did not meet enthusiasm at all.

18 <http://www.leipzig-netz.de/index.php5/LD.Konzeption>

19 See <http://en.wikipedia.org/wiki/Hackathon>, <https://www.facebook.com/hackathon>, <http://www.nerd-zone.com/hackathon/>

Another approach to sensitize local web service providers to an upcoming technology is to sensitize their clients to the benefits of that technology for their core businesses. In a *second attempt* we reformulated the initial scope in the following way:

- Start the project on 01.10., in short terms find out and get in contact with clients of local web service providers (at the first level of value creation) that are already sensitized to the benefits of the new technology for their core businesses – *first level power users* for short,
- find appropriate partners and related local web service providers among them to set up and shape three pilot projects within a hackathon (mid of November),
- realize these projects by the local web service providers of these clients under promotion and advice from our academically backed up team and
- use that process to strengthen the regional Open Data infrastructure to form a competence center for Linked Data technologies.

We were faced with the problem to identify such first level power users, since our main contacts so far were to local non-profit associations only with even less resources to organize their own IT support. Since the board explicitly asked in advice 2.) to force such an approach we expected to get qualified support from the board or the AfW. This approach failed completely, too, since non of both was able to support us to identify such first level power users directly.

Hence we decided to find out first level power users through other mediator organizations with tight contacts to such stakeholders and to prepend the hackathon with an *Open Community Process* to get in contact and sensitize such local mediators in the area of profit and non-profit associations for the Open Data theme.

At the project presentation on 11.09. Dr. Hagen Habicht (HHL, Center for Leading Innovation & Cooperation and member of the board) offered support to find appropriate forms for such an open community process and to accompany the project with an academically based evaluation. We shaped this idea in several meetings and included it into the revised project proposal. Habicht contributed several basics that should be addressed planning and shaping such meetings – come together, one theme, great time, build something – but silently canceled cooperation already in the first weeks of November.

We intensively discussed how to shape the open community process at the Seminars on 26.10., 02.11. and on the API Leipzig mailing list. Since we had not yet a written project consent at that date but plenty of (negative) results we used the Seminar on 02.11. to redesign the project also along a realistic time schedule. A first brainstorming with mediators on the benefits and use of Open Data was scheduled for 28.11. This date was planned as starting point to get first level power users interested for the Main Event.

Finally we set up as initial scope

- to find out first level power users through mediators with tight contacts to such stakeholders within an *Open Community Process*,
- to open that *Open Community Process* with an Opening Meeting on 28.11. with local mediators,
- together prepare the *Main Event* in January 2013, including a real hackathon to identify the pilot projects
- and to realize these projects as planned earlier in a second project phase.

The *Main Event* we decided to be divided into three parts. The first part was planned as extended brainstorming with first level power users on ideas collected in advance or supplied at the meeting. This was planned to be consolidated into several working proposals that should be tackled in a

“classical” hackathon within two days by interested IT specialists to show that these proposals are not merely intellectual games but are technologically feasible within the target infrastructure. Very first prototypes were planned to be presented at the third part of the event to the first level power users for a final discussion. With regard to the time lag to get the project accepted we decided to start such a Main Event only in the second week of January.

Due to the imponderableness of the overall process we postponed a more detailed planning of the second project phase (January–April 2013) until the results of the Main Event were available. We expected – as suggested by the board – to realize this second part in tight cooperation with the API Leipzig Working Group and to advance the API Leipzig framework towards Linked Data standards. In the project plan (as of 01.11.) for the initial scope of the second phase we shortly formulated

- to realize the tasks within the pilot projects, to consolidate API Leipzig, to evaluate the project, to collect lessons learned;
- to organize a final milestone workshop with regional partners at the end of April to present and discuss the results.

Running the Project

We started running several project related activities at the “data frontier” from the beginning of October, even if the project was not yet finally accepted at that time. Technical and conceptional questions of this data transformation process were intensively discussed in advance at the Seminar on 27.09. We set up the domain leipzig-data.de, started to transform parts of the ZAK Database collected within the MINT-Leipzig network and to analyze the API Leipzig Database on a volunteer basis. As the project finally started on 12.11., this part – force the technical base, install and configure the required software infrastructure, adapt a widget solution to present Event Data from the ZAK database developed in a predecessor project as a prototypical solution based on an Open framework – was realized by Johannes Frey, who later on coordinated the data management within the project.

On a second line we tried to make up contacts with potential stakeholders and to establish the Seminar as meeting point of the community to be shaped. At the Seminar on 12.10. we invited related projects for presentation and discussed potential common aspects and cooperations.

Since using the leipzig-netz wiki requires contributors to have a login, at the Seminar on 26.10. we decided to set up a Wordpress blog with comment function as a low-threshold service to stimulate contacts with the project team and to collect information about ongoing Leipzig Data projects. Until January 2013 we collected information about 20 such projects.

Theme	Contributed on	Contributed by
Project “Peak Oil” – ZAK	31.10.	Hans-Gert Gräbe
Solar Atlas (Prof. Illing, HTWK)	31.10.	Hans-Gert Gräbe
STIL Buddies Communication Platform	02.11.	Andreas Nareike
Exchange Platform for Kindergarden places	02.11.	Thomas Riechert
City:Cult Event Platform	05.11.	Jörg Kiesewetter
OpenData activities in different cities	07.11.	Claus Stadler
ZAK Motion Detector	16.11.	Pheli Sommer
Event Platform on environmental education	17.11.	Annette Körner
Event Platform Network Energy & Environment	17.11.	Lisa Keck

Media enterprises handbook	17.11.	API Leipzig
Handbook on energy and environmental enterprises	28.11.	Hans-Gert Gräbe
Interactive tour across the Naturkundemuseum	28.11.	Hans-Gert Gräbe
Data base on studio locations, Kreatives Leipzig	09.12.	Hans-Gert Gräbe
Data base of non-profit associations, urban administration	09.12.	Hans-Gert Gräbe
Web site of the OBM candidate B. Höll	23.12.	Hans-Gert Gräbe
Sport in Leipzig	04.01.	Hans-Gert Gräbe
Interactive vacancy indicator	06.01.	Maren Müller
Project “Kompass Leipzig”	17.01.	Hans-Gert Gräbe
Project “Leipzig Leben”	17.01.	Hans-Gert Gräbe
Event calendar of the IHK	17.01.	Hans-Gert Gräbe

At the Seminar on 02.11. we discussed the Open Community Process in more detail, in particular how to get in contact and get interested mediators for the Opening Meeting on 28.11. We set up a working group (Hans-Gert Gräbe, Andreas Nareike, Hagen Habicht, Matthias Petzold, Martin Gamnitzer) both from the University Leipzig Team and the API Leipzig context to prepare the Opening Meeting and the Main Event and used Google Documents to adjust the process. This work was coordinated by Andreas Nareike, who was assigned for and later on acted as project coordinator.

We prepared an invitation²⁰ for the meeting on 28.11. and sent it to about 20 mediators. Since we got almost no response, at the Seminar on 16.11. we decided also to sent invitations to the political representatives of the parties in the City Council. Andreas Nareike, who was assigned to coordinate that process, spent more efforts to get in contact with multipliers, but without success. The Opening Meeting was attended by only two persons from outside the project context. Casually people from other projects (Markus Zapke, API Leipzig; Felicitas Sommer, Transition Town; Werner Stickler, Zukunftsakademie) could be interested for our project ideas but did not join forces on a regular basis.

Also other efforts (presentations at the Conference “Open Innovation in Creative Industries”²¹, organized by the AfW on 29.11., and the meeting of the Energy Cluster on 03.12.) had no valuable output. Hence we had to prepare the Main Event with own forces and during December 2012 concentrated efforts of the University Leipzig Team and M. Petzold and M. Gamnitzer (API Leipzig) on that preparation.

Since there was no visible input from outside the project we shaped three tasks (Leipzig Yellow Pages Project, Energy Project, Events Project) from our pool of ideas as germs of potential pilot projects. For each of these tasks we identified public and private dimensions and points of reference with predecessor activities. The public and private dimensions were identified to indicate the interplay between public benefit and private engagement of each of the tasks. This proposal was published in advance on the web.

For the Main Event²² on 11.01. we compiled a challenging program with a key note on “Mobile Augmented Reality with Open Data” by Prof. Frank Fuchs-Kittowski (Fraunhofer Fokus und HTW Berlin) and a presentation of our project ideas. The complementary program (catering etc.) was organized by people from the API Leipzig context as subcontracted work.

20 See <http://leipzig-data.de/Upload/Einladung-20121128.pdf>

21 <http://www.open-innovation-conference.com>

22 <http://www.leipzig-netz.de/index.php5/LD.OpenInnovation-12.IdeenBoerse>

Although there was room for participants to present ideas, no one of the more than 20 participants attending the meeting used that opportunity. Hence we presented our three project tasks and concentrated in the afternoon workshop sessions (one per task) to get more input about our ideas. For each workshop we appointed a coach (Yellow Pages Project – Andreas Nareike, Energy Project – Steffen Dienst, Events Project – Hans-Gert Gräbe, all from the University Leipzig Team) who prepared the input, managed the discussion and collected the results of the workshops into presentations that were available immediately after the workshop. These results were used in the programming sprint on 12./13.01. in the sublab²³ to get first prototypical implementations for the tasks as starting point for more consolidated efforts in the remaining months.

The most promising project with direct links to SME was the Energy Project, that had interesting cutting edges with the Eumonis project²⁴ (Steffen Dienst), an the ongoing regional effort to set up a project “Sustainable Energy Ecosystems” (SEE) within the *Zwanzig20* BMBF project call²⁵, but the requirements remained vague and none of the (potential) players joined the programming sprint.

Hence within the programming sprint we concentrated on the Events and the Yellow Pages Projects and nine programmers (Hans-Gert Gräbe, Andreas Nareike, Johannes Frey, Claus Stadler, Martin Gannitzer, Matthias Petzold, Steffen Matthes, Christof Pieloth, Jörg Kiesewetter) joined forces and prepared first prototypes for both tasks. The main and gracefully acknowledged by the participants result of that programming sprint was a real impression of the promises of the new technology.

Within the next weeks we tried to shape the plans for the second phase with Steffen Matthes (Matthes & Hofer webdesign), Christof Pieloth, Jörg Kiesewetter (city:cult), Johannes Kriesel and Tino Nietsch (symström, Energy Project).

The contact with Steffen Matthes, who technically maintains www.mehr-als-chillen.de, was very short. At the programming sprint we developed a first prototype to include event informations from mehr-als-chillen.de into our Event Framework based on a regular data dumps. A first dump was completely integrated into our framework but Matthes did no more cooperate.

The cooperation with the API Leipzig context remained problematic. In particular there was a strong claim by Benjamin Knofe (API Leipzig Web master, see API Leipzig Mailing List, 14.01.2013) that the API Leipzig Group does no more exist and hence one cannot expect any kind of structured cooperation. Such a claim is strongly supported by the status of the API Leipzig github repo²⁶ – the last commit to the [apileipzig/api](https://github.com/apileipzig) repo (looked up on 04.10.2013) dates on 18.05.2012.

More fruitful cooperation could be established with city:cult (Events Project) and symström (Energy Project) but also these players did not take over a valuable part of infrastructural work as partner of one of the pilot projects in the sense suggested by the board.

Hence we had to rethink completely the second phase of the project and heavily rest on ideas and resources of the University Leipzig Team that were already in the pipeline. Note that such a setting comes close to our very first ideas about the shape of our technologically driven Open Innovation process. From the point of view of the Outer Open Innovation Process it turns out that the board and AfW urged us to modify plannings in a direction that proved to be fruitless. Looking back it seems that our project setting was used by these players to “prove the obvious” thus wasting resources for non-productive “fancy games”.

To develop realistic perspectives we first concentrated forces on the consolidation of the results of the programming sprint increasing the weekly workload of Andreas Nareike and Johannes Frey. The time account of Andreas was exhausted at the end of February, that of Johannes Frey (not counting

23 <http://sublab.org>

24 <http://eumonis.de>

25 <http://www.unternehmen-region.de/de/6829.php>

26 <https://github.com/apileipzig>

the operative service for leipzig-data.de) at the end of March. Simeon Ackermann joined the team on 01.03. and took over part of the duties of Andreas Nareike who reduced his Leipzig Data workload and switched to another project. Ackermann also worked on the backend of the project's Wordpress site leipzig-data.de.

We contacted people from AfW better to understand the perspectives of our efforts within their Open Innovation approach but learned that there are no more tasks scheduled beyond a “lessons learned” meeting in the second half of 2013. Hence there was no need to explicitly formulate a special scope for the remaining project time and we concentrated on agile methods to develop germs of future cooperation.

As a common task for all our subprojects we identified *geolocated services* and close relation to Open Streetmap technologies. We set up a subcontract with Simon Johanning to study these technological problems and to become our expert in geolocated technologies.

In a second task we shaped the *Leipzig Data Event Framework*, set up a process to collect event data from different sources within the “long tail” (i.e., of stakeholders with a small number of events per month to be published) and released this data on a weekly basis. Data are collected from the MINT-Leipzig network, the API Leipzig calendar and the NEU calendar (Netzwerk Energie und Umwelt) and held available three months after the event happened. At the moment (04.10.) we have 75 events scheduled. City:cult designed an interface to these event data within their (more general) event framework for mobile phones. The architecture is open for other providers of event information, but we could not yet get other stakeholders be interested to join forces with the project.

Close related to the Event Framework is the *Yellow Pages Project*, that collects (also) more information about venues and hosts of events. In February we became aware of the project *Jugendstadtplan*, a common project of the Stadtjugendring and GfzK in the run-up of the World Skills 2013 Event in Leipzig supported by the urban administration. A first exchange of data showed the potential of our data and technologies for such a task. Andreas Nareike and Simon Johanning in short terms set up a prototypical web page with an annotated map based on Open Streetmap technologies and joined forces with the ongoing process at Stadtjugendring and GfzK. In particular, we supplied detailed information about MINT places and started a subproject *Jugendstadtplan* within our own efforts. Since all that was not really valued by the partners but the idea was promising we decided to offer that as theme to students within the summer term. Ken Kleemann prepared that together with Simon Johanning within the project schedule – the project was successfully completed during the summer term.

For the *Energy Project*, that was not really moved during the Main Event, we joined forces with the cluster team on renewable energies headed by Lothar Lindner (Ingenieurbüro Lindner) and joined forces with Johannes Kriesel (symstöm) as another volunteer. We found and reactivated data from a predecessor project on energy data in the Leipzig East quarter that applied for promotion and canceled efforts after the decision not to promote the project. Johannes Frey managed to transform these (geolocal) data according to our technologies and prepared a presentation based on Open Streetmap technologies to show the potential of the approach. There were further discussions with other potential stakeholders (NEU – Lisa Keck, Amt für Stadtökologie – Herr Simowitsch, Frau Lehmann), but there was no valuable output during project time. We aligned these efforts with the SEE project efforts, but since SEE was not promoted as decided on 18.06. by the central consortium our ideas are put aside for better times.

All these matters were regularly discussed at the Seminar meetings on 25.01., 07.02., 21.02., 07.03. (see the schedule²⁷ of the Seminar on 07.03. for a typical agenda).

27 <http://www.leipzig-netz.de/index.php5/LD.LOD.2013-03-07>

Final Milestone Phase

We used the seminar on 19.03. to “count chickens”, to decide about reallocation of resources to finalize dedicated projects and to plan the final milestone. We decided to concentrate resources on four tasks:

- consolidate the Wordpress installation at leipzig-data.de (Simeon Ackermann under the advice of Andreas Nareike),
- set up a process of regular actualization of the event data within the Events Project (Hans-Gert Gräbe),
- try to vitalize the Energy Project (Johannes Kriesel, Lothar Lindner),
- work on the Jugendstadtplan (Simeon Ackermann under the advice of Andreas Nareike, partly supported by Simon Johanning), in particular prepare it for a students' project in the summer term (Ken Kleemann).

We successfully applied to AfW for a reallocation of the financial resources of our project according to the changed scope strongly cutting resources planned for the API Leipzig consolidation in favor of the additional efforts within the Leipzig University Team and additional expenses for two events at the end of April:

- join forces with InfAI and the MINT-Netzwerk Leipzig for the *4th Interdisciplinary Seminar on Sustainable Information Society* on 19.04. and
- a milestone meeting on 26.04. to present and discuss the result of our project.

We used Seminars on 11.04. and 25.04. to shape and promote these events. For the final meeting²⁸ we invited two keynotes about Open Processes in Leipzig

- Open Maps – Leipzig Open Streetmap activities (Fabian Schmidt)
- Open Internet Service Providing – the OpenISP Projekt at westnetz.org (Benjamin Kießling)

and presented the state of affairs of five tasks

- The Wordpress Site at leipzig-data.de (Andreas Nareike)
- The Yellow Pages Project (Hans-Gert Gräbe)
About the Leipzig Data Database and towards a Leipzig Ontology
- The Events Project (Andreas Nareike, Johannes Frey)
Realization of an RDF based event channel architecture for projects and stakeholders in Leipzig in the “long tail” of the event promotion machinery
- The Jugendstadtplan Project (Hans-Gert Gräbe, Andreas Nareike, Simon Johanning)
A project in the run-up of the World Skills 2013 Event
- The Energy Project (Johannes Frey)
About the potential to collect and visualize geolocal informations for different aspects of urban development

Postproject activities

Since we could not establish spin off projects we had to “mothball” our activities and drill them down to a level that could be managed on a volunteers basis, as spin off of other projects or regular teaching activities. The tasks presented at the final milestone meeting are the core of a sustainable infrastructure operating beyond the project's time at such a level:

28 <http://www.leipzig-netz.de/index.php5/LD.LOD.2013-04-26>

- The Wordpress Site at leipzig-data.de will be further developed as publicly visible show window for ongoing Leipzig Data activities.
- The Yellow Pages as core of the Leipzig Data Database will be enlarged step by step with additional data, combining appropriate projects with teaching activities.
- The Events Project is running on a low level activity as weekly ticker of event announcements in the “long tail” on a voluntary basis.
- Our Jugendstadtplan Project was realized during the summer term by an interdisciplinary team of students both from the humanities and computer science and finished well before the World Skills 2013 Event, although it played no role at all in the official PR activities. Even if the “official” Jugendstadtplan uses completely different concepts, there is a promise by the urban administration to come back to our work.
- The Energy Project is moved to the back plane and waits another time for a “prince to kiss the frog”.
- The Leipzig Data Seminar moved his focus towards more technical and academic discussions and will be continued as “Seminar on Applications of Semantic Technologies” in the winter term.

Lessons Learned

As one of the objectives of the long-term effect of the project we formulated in the proposal

... to lay a corner stone for a communicative infrastructure of local stakeholders in the area of Open Data Technologies ...

At the beginning of this text I stated that for a technologically driven Open Innovation goal well balanced activities are essential from the *magic triangle* of

- an academic background that provides knowledge about the new technology and access to knowledge networks,
- the regional economic development structures that are open minded to the new technology
- and local SMEs that understand the value and are open to acquire the new technological knowledge.

The main lesson learned (once again) is that we have excellent prerequisites in the Leipzig region to foster such a magic triangle as inevitable prerequisite for regional economic development, but by some reasons other regions are much more successful concentrating efforts and resources on challenging and promising technologies within the digital change.