Replication Chart Vienna

A structured overview of replication activities in Vienna

update May 2020

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Vienna's Replication Structured

By 2019, Smarter Together Vienna had mostly completed the implementation phase of its project and largely achieved its goals. Those exploratory projects that were completed on their own served as learning projects for future activities.

As a result of the excellent project dynamics the intensive governance learning through the active involvement of staff of the City of Vienna and partner organisations, numerous follow up activities, projects and strategic orientation and even funding schemes were initiated, launched and/or even implemented.

The following chart states over 50 bullet points of concrete follow up results of Smarter Together in different categories ranging from strategic level replication and Smarter Together 2.0 via EU funded and national projects to concrete follow up projects and activities of the project partners.

Strategic level replication:

1. **Smart City Framework Strategy**. This document has been updated through a monitoring process where Smarter Together has participated intensively. As a result, especially participation and data management have been given an even broader emphasis (https://www.smartertogether.at/smarter-together-fest-in-der-scwr-verankert/)

2. **Vienna2030**, the economical strategy. Here, six key areas have been defined and the first refers directly to holistic urban renewal as Smarter Together showcased it in Simmering (https://www.wien.gv.at/wirtschaft/standort/strategie.html, https://stolzauf.wien.gv.at/site/

3. **Guideline urban mobility**, several of Smarter Together pilot projects have been highlighted as best practices (https://www.smartertogether.at/mobilitaetsmassnahmen-im-wohnbau/)

Smarter Together 2.0:

4. „**Deep Demonstration**"-Programme (29.1.2020) **Climate-KIC**. Conceptional and preparatory works are made for a holistic 1 to 1 replication of Smarter Together using its largely recognised "brand" as a key element to get all potential actors on board as well as the required financial / budgetary means
https://www.ots.at/amp/pr/OTS_20200203_OTS0086/?__twitter_impression=true

Political Commitment:

5. Commitment to future cooperation of project partners has been emphasized by the latter (https://www.smartertogether.at/videostatements/)

6. In general, some of Smarter Togethers key philosophical and visionary approaches have been integrated in Vienna's governance learning as seen above in the diverse strategies and funding schemes.

New funding scheme:

7. **Funding for e-mobility / e-carsharing** in housing including strong elements of participation for which the experiences with the e-car-sharing of BWSG Hauffgasse were one of the main inputs. Aim to support 10-15 innovative projects more to settle and expand the experiences made at BWSG Hauffgasse (https://www.smartertogether.at/foerderoffensive-e-mobilitaet/)

EU funded follow up projects:

8. **RenoBooster**: As an outcome i.a. of Smarter Together, Vienna succeeded to get another EU funded H2020 project focusing on boosting the housing refurbishment in the private sector called RenoBooster, project number 847029, launch May 2019, duration 3,5 years until 2022, budget 1.9 mio. Euro (https://www.wien.gv.at/wohnen/wohnbautechnik/foerdern/projekt-renobooster/)

9. **Decarb City Pipes 2050** (to start May 2020) – Transition roadmaps to energy efficient, zero-carbon urban heating and cooling. It takes up lessons from the refurbishment projects of Smarter Together regarding the need for better integration of heating system and heat supply towards holistic strategies and it continues the collaboration with Munich. This project is the first to unite cities across Europe to work out actionable, spatially differentiated transition roadmaps to decarbonise heating and cooling for buildings in 2050, taking up the challenge to phase out natural gas in heating. With Bilbao, Bratislava, Dublin, Munich, Rotterdam, Vienna and Winterthur, seven cities from frontrunners to beginners join forces to learn from each other and elaborate innovative responses together.

10. **REDAP** (Regional Energy Demand Analysis Portal): **AIT** has recently started REDAP with other Partners from Ireland and Sweden. It deals with the spatio-temporal assessment of energy demand for building and mobility in urban areas. The established tool will be tested at different city case studies. It is also planned to apply it for the case of Simmering to demonstrate the effectiveness of smart solutions (for building and mobility) at district scale.

11. **EASYFIT** is an H2020 project proposal that submitted by **AIT** with other EU-partners. It makes use of the gained experience on building refurbishment within Smarter Together project. Its focus is on facilitating and accelerating the building refurbishment process of multi occupancy residential buildings. It is supported by an LOI of the city of Vienna (MA 25)

Nationally funded follow-up projects:

12. **Green Energy Lab Spatial Energy Planning (GEL SEP):** the energy screening within Smarter Together was an important input for developing a model for a *dynamic energy atlas*

13. "**Energieraumpläne**": New energy zoning to prioritize low-carbon heat supply. In a first step energy zones are for new buildings (https://www.wien.gv.at/stadtentwicklung/energie/erp/aktuell.html)

14. **LiLa4Green**: **AIT** supports the realization of green-blue infrastructure projects in the 10th and 14th district in Vienna with a focus on user integration inspired by the participation methods used in Smarter Together. Besides, part of the project is monitoring aspects and the use of VR-tools.

Organisational Governance Learning by the City of Vienna:

15. Replication Work package and "**Harvesting Workshops**" coordinated by UIV for Smarter Together on different specific topics bringing together all actors in view of learning and replication.

16. **Vienna member of Energy Cities.** Thanks i.a. to the Smarter Together best practice experience, the cooperation amongst both partners have been formalized through membership in 2019. (https://energy-cities.eu/energy-cities-welcomes-4-new-member-cities/)

17. **Smartdata.wien**, the Smarter Together data platform has already been formally integrated in the system of the City of Vienna (Department MA 01) and will be used for IoT.

18. **Wiener Wohnen** and **Wohnpartner** are committed to replication. Julia Girardi-Hoog, our former project manager has a high level strategic managerial post to integrate the best practices of Smarter Together in the every day management of Wiener Wohnen. With that goes also our best practice cooperation with wohnpartner (https://www.smartertogether.at/wohnpartner-im-graetzel/)

19. **IBA_Wien 2022**, the Vienna building exhibition, where Smarter Together is one of the lighthouse projects (https://www.smartertogether.at/neuer-projektfolder-der-iba_wien/)

20. **Zero energy gym:** The experiences were integrated for defining criteria of further refurbishments or new constructions of schools

21. **Governance learning** within Austrian partner cities such as Innsbruck or Graz (https://www.smartertogether.at/mit-innsbruck-im-austausch/)

22. **Energy planning:** The energy planning department was referring to the experiences of Smarter Together in discussion of developing strategies and projects in other areas (for instance Floridsdorf). Also the communication between the department and the public utility as well as another energy provider and other partners was strengthened.

23. **Energy atlas:** The energy planning department was creating a first *static energy atlas* for the whole city based on the method of the energy screening in Smarter Together. It will be further developed to a dynamic model within the project GEL SEP (see above)

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Projects of Project partners:

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24. **AIT, MA 34, Vasko&Partner: Monitoring** of the school by AIT and Municipal Department for Building Management (**MA 34)** and Vasko&Partner will provide valuable long term knowledge to all partners.

25. **MAED-City (Model for Analysis of Energy Demand for Cities): AIT** has prepared the first version of the bottom-up tool MAED-City to conduct an integrated sectoral energy demand analysis for region, cities and districts. It supports the decision-making process in preparing future sustainable energy strategies and decarbonisation scenarios. Results of Smarter Together on building refurbishment are being used to calibrate the tool regarding the impact of energy efficiency and local renewable measures. Further adaptations are ongoing for applying the tool on planning positive energy districts.

26. **BWSG**: Based on the refurbishment of Hauffgasse, BWSG enforce an ambitious refurbishment process of other buildings in the area. This includes the use of best practices in Hauffgasse such as for instance the early stage involvement of a structured mediation/participation process (through the partner on the Hauffgasse site "wohnbund:consult") of the tenants as well as developing an energy system including batteries with Kreisel Systems.

27. **BWSG** will expand the e-carsharing within the existing housing estate as well as to the neighboring ones. **BWSG** has included its staff in organizational learning through a district walk (https://www.smartertogether.at/bwsg-graetzelwalk-mit-weitblick/)

28. **Kelag Energie & Wärme:** The refurbishment of Hauffgasse and the related monitoring lead to measures for increasing the efficiency of the small district heating network. Furthermore, Kelag was learning about the integration and implementation of photovoltaic on high-rise buildings. This learning is included in daily business.

29. **Siemens** (its industrial site "Leberstraße") has continuously developed Smarter Together initiatives in regards to the industrial logistics on site, bought additional e-vehicles (e-forklifts, e-car for the internal post, e-transporter for semi constructed trains). Siemens will implement the initial project idea of PV on a new to build building (in 2021). A specific analysis is made on potential energy savings in each assembly hall. Siemens is also participating in the Sustainability Challenge 2019/20 and includes 7 young students in a development effort of green innovation. (https://www.smartertogether.at/siemens-partnerschaft/). Finally, Siemens is also systematically motivating staff to co-create innovative ideas as already the inclusion of staff in the project development appeared to be highly productive, making the industrial site an attractive European lighthouse in this regard.

30. **Österreichische Post.** The Smarter Together project implementation of two e-vans by the Austrian Post was used as a real time test and research opportunity for the development of a

future zero-emission fleet. As a result, the Post launched the CO2-emission free postal delivery in Graz (https://www.post.at/footer_ueber_uns_presse.php/presse/details/id/1644405#)

31. **Wien Energie:** The insights and knowledge of the conception for the two data centers were used for analyzing the district heating network in the area as well as for using waste heat in other areas. Wien Energie started to negotiate with other data centers.

32. **Wiener Linien**: Wiener Linien already opened two new Mobility Stations in Vienna and will further expansion the network of **mobility stations** in 2020 and 2021. After a pilot phase of several mobility points offering diverse mobility service options, a city-wide mobility point network will be planned to cover whole Vienna. (https://www.smartertogether.at/zwei-neue-wienmobil-stationen-eroeffnet/)

Follow up to projects:

33. **Beat the Street** has been replicated by Munich which developed its own technology under the name of "Kreuz und quer". And the latter has been used again in Vienna under a new branding "Climate Heroes" (https://www.smartertogether.at/climate-heroes-in-favoriten-und-donaustadt/)

34. **Solar benches:** Some districts of Vienna want to replicate the installation of the solar benches. Especially, the 21st District intends to install solar benches asap.

35. **EducationQuarter Enkplatz**: The local cooperation of educational institutions is a strategy that is ongoing in Vienna. In Simmering, Smarter Together had so many educational driven activities that it has been / is a part of it (https://www.smartertogether.at/bildungsgraetzel-enkplatz/)

36. **The GBV**, the Network of Limited-Profit-Housing-Associations has included the e-carsharing model of Smarter Together in its training material for innovative housing development ideas https://www.smartertogether.at/nms-enkplatz-eine-schule-waechst/ .

37. *The wohnbund:consult*, the mediation institution working in close cooperation with the BWSG in Hauffgasse-Simmering, had included the e-carsharing model in a variety of further housing development projects as well as in a short movie on this issue.

38. The klima**aktiv** mobil programme „Mobility management for companies, property developers and fleet operators" supports investment in environmentally friendly mobility solutions and encourages the purchase of electric cars and e-vehicles charging infrastructure. It is implemented by the Austrian Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology *(BMK)*. An information sheet on the best-practice example in the BWSG-Hauffgasse should motivate other developers to follow the example (https://www.smartertogether.at/eine-klimaaktiv-best-practice/).

International:

Smarter Together Vienna is promoting replication through networks such as

39. **H2020 SCC1 collaboration groups,** creating and participating in knowledge sharing and exchange collaborative workshops strengthening the replication potential of the Vienna use-case

40. European Innovation Partnership of Smart Cities and Communities (https://ec.europa.eu/info/eu-regional-and-urban-development/topics/cities-and-urban-development/city-initiatives/smart-cities_de),

41. Smart Cities Information System (SCIS) (https://smartcities-infosystem.eu/),

42. Club of Cities (https://www.smartertogether.at/club-of-cities/),

43. Energy Cities (https://energy-cities.eu/)

44. Vienna's Smarter Together is participating on international Smart City conferences and venues such as Barcelona, Stavanger and others

45. Vienna's Smarter Together is promoting replication through bilateral contacts with international partners

46. International networking though **BABLE** (https://www.smartertogether.at/bable/)

47. International networking through **Construction21.org** (https://www.smartertogether.at/green-solutions-award-ii/)

48. Vienna's Smarter Together is promoting replication through international scientific cooperation and has for instance been included in a **European Best Practice collection** / book (https://www.smartertogether.at/europaeische-best-practice-sammlung/)

49. International networking through collaboration with international PhD students and universities (https://www.smartertogether.at/smart-city-und-kids/)

Staffing:

50. A special analysis worthy is be the number of qualified staff hired upon additional projects in line with Smarter Together strategy such as RenoBooster, CityPipes and all other funded projects (by EU or by local means).

51. Additional organizational adaptation due to integration of new tasks such as the integration of the smartdata.wien platform or at Wiener Wohnen in the municipal structures are also relevant for the staffing.

Report on Governance Learning:

Please find detail on methods and approaches of Governance Learning in the report on
https://www.smartertogether.at/governance-learning/

Governance Learning, How it is conceived

Governance Learning is a method of knowledge management and a key focus of Smarter Together because the Human Resource Development is in the centre of any sustainable development.

The aim is to ensure **sustainability** through a **process-oriented approach**, which is applied in the implementation of the more than 40 very specific sub-projects in Vienna alone. This is done by anchoring the projects and the vision in the city through the participation of those involved. In doing so, the employees are provided with concrete knowledge as well as emotionally addressed. The individual projects are implemented in the classical manner according to the SMART method (Specific, Measurable, Attractive, Timed, Realistic). Thus, two different management approaches – process orientation and goal orientation – are merged into one.

Innovation oriented organizational culture and dynamics

The main structural tool was to define a **consistent personal-month budget** as well as in addition clear agreements on the tasks with the different units and supervisors on these staff. The aim was to empower the staff to work in a creative way for the project. This included municipal staff as well as decision makers on one hand as well as those from the project partners on the other. The idea was to transfer not only specific technical knowledge but rather a **vision, values and a commitment** that would foster an **innovation oriented organizational culture and dynamics**.

In this view, Smarter Together served as a hub of a broad "**Network of Excellence**" where the different partners shared the deeper vision and meaningfulness of their individual contributions.

On one hand, the involved staff contributed their skills, knowledge and network so that they could identify themselves with the project and its values. On the other, the project provided a number of mostly informal means of exchange during project implementation as well as more formalized formats such as annual conferences, P2P learning and the so called "harvesting workshops".

Here some examples:

- **Dialogue with tenants**: marter Together brought together at least three institutions dealing with the dialogue with tenants of Vienna's subsidized social housing eco-system, namely the Urban Renewal Office, the Wohnpartner (focusing on municipal housing) and the wohnbund:consult, a private mediation institution focusing in the project on the limited profit housing association BWSG in the Hauffgasse. All three have different focuses and ways of doing things. Through the interaction in the project they were able to experience and integrate the other's approaches and ways of doing it.
- **IT Platform**: The municipal IT staff was tasked with the research on possible international best practices regarding an innovative data platform and as a result developed a novel platform for the use of the project (smartdata.wien). As a result, their level of identification contributed to the decision making process of integrating the data platform in the structure

of the City of Vienna for the purpose of IoT in a roll out phase. The EU funds served hence the development of skills that are necessary in the implementation of the roll out.

- **Communication focus: the staff**. The communication task reached out to a wider public but also and more specifically to the involved staff sharing vision and commitment. Different tools from newsletter, blog entries to district walks attracted different means of attention. The idea was to anchor the profound understanding of the project's aim and vision within the urban decision makers. The inclusion of Smarter Together's approaches in all relevant strategic documents, a new funding scheme for e-mobility, and others.
- **BWSG next projects**: The BWSG housing association experienced the benefits of the mediation of an external institute that used new approaches and issues far from the usual problem-oriented ones such as the implementation of the e-carsharing sheme and incorporated through doing these learnings in their next generation refurbishment projects without additional EU funding. In addition, a district walk with all staff allowed to have a view beyond the usual tight job descriptions.

As a result of the excellent project dynamics the intensive governance learning through the active involvement of staff of the City of Vienna and partner organisations, numerous follow up activities, projects and strategic orientation and even funding schemes were initiated, launched and/or even implemented.

Hence, the strategic level replication through the inclusion of Smarter Together methods in municipal strategies and strategic documents as well as Smarter Together 2.0 is certainly to be seen as a result of intensive governance learning.

The development od skills within Smarter Together increased the capacity to develop specific EU funded projects and such funded on national level.

Governance learning also contributed to the organizational development within the project partners as well as to their respective follow up projects all implemented without EU funding but merely in line with the Smarter Together vision.

The international interest for Vienna's Smarter Together approach is reflected in the inclusion in different knowledge exchange platforms as well as through different awards.