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## **Structure Matters: Real-World Laboratories as a New Type of Large-Scale Research Infrastructure. A Framework Inspired by Giddens' Structuration Theory**

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### **Supplementary Material**

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<b>Thematic Scope</b> (Linked to rules of signification/legitimation)	<i>multi-thematic</i>	<ul style="list-style-type: none"> <li>Scientifically accompanied alternative <i>housing projects</i> (Hugentobler et al. 2015): Focuses on sustainable co-operative housing with 13 new buildings, which offer living and working space for more than 1100 people. (<a href="https://mehralswohnen.ch">https://mehralswohnen.ch</a>)</li> </ul>	<ul style="list-style-type: none"> <li>Real-world laboratory <i>Karlsruhe Oststadt</i> (Parodi et al. 2016): Promotes sustainable urban development in the eastern part of Karlsruhe (<a href="http://www.quartierzukunft.de/">http://www.quartierzukunft.de/</a>)</li> <li><i>Climate quarter</i> Wuppertal- Arrenberg: Aims to achieve a climate-neutral urban district. (<a href="http://bit.ly/2nj6We6">http://bit.ly/2nj6We6</a>)</li> <li>Real-world lab <i>Wuppertal-Mirke</i> (Wanner et al. forthcoming): Aims to integrate all relevant civil and municipal stakeholders of district development for the purpose of local well-being transformation (<a href="http://bit.ly/2nTtFN9">http://bit.ly/2nTtFN9</a>)</li> </ul>	<ul style="list-style-type: none"> <li><i>Trafo-Lab Wuppertal</i> (Rose et al. 2017): Focuses on conditions and constraints of transforming well-being in Wuppertal and the roles of scientists in this endeavour. (<a href="http://bit.ly/2nTtFN9">http://bit.ly/2nTtFN9</a>)</li> <li><i>Innovation city Bottrop</i> (Henderson and Rothballer 2014): Model district with around 70,000 inhabitants with the goal to reduce the CO<sup>2</sup> emissions in the district by the end of the decade by 50 percent. (<a href="http://www.icruhr.de/">http://www.icruhr.de/</a>)</li> </ul>
	<i>mono-thematic</i>	<ul style="list-style-type: none"> <li><i>Space-Sharing Stuttgart</i>: Concentrates on the intensification of use of existing buildings through multiple use and dynamic programming (<a href="http://www.spacesharing.info">www.spacesharing.info</a>):</li> </ul>	<ul style="list-style-type: none"> <li><i>Haushüten Wichlinghausen</i> (Rose et al. 2017): Focuses on vacant apartments with the aim to create solutions to care for them with the help of tenants who pay below standard but maintain the facility (“Haushüten”) (<a href="https://haushueten-wuppertal.de">https://haushueten-wuppertal.de</a>):</li> </ul>	<ul style="list-style-type: none"> <li><i>Future City Lab</i> (Stokman and Uhl 2017): Focuses on real-world experiments for a sustainable mobility culture (<a href="http://bit.ly/2BhyKaE">http://bit.ly/2BhyKaE</a>)</li> <li><i>Textile-Lab Dietenheim</i>: Concentrates on the sustainability-oriented revitalization of the textile town of Dietenheim (<a href="http://dietenheim-zieht-an.de">http://dietenheim-zieht-an.de</a>)</li> </ul>
	<i>household/block</i>	<i>city quarter/district</i>	<i>City</i>	
<b>Spatial Scope</b> (Linked to involved authoritative/allocative resources)				

Table 1: Compilation of real-world laboratories with different spatial and thematic scopes (examples from Baden-Württemberg, North Rhine- Westphalia, and Switzerland)

## References

Henderson, J., C. Rothballer. 2014. *InnovationCity Ruhr – Model City Bottrop: Revitalizing an industrial region through low-carbon redevelopment and active public-private partnerships*. ICLEI Case Studies No. 169. Freiburg: ICLEI.

Hugentobler, M., A. Hofer, P. Simmendinger, J. O'Donnell (Eds.). 2015. *Mehr als Wohnen. Genossenschaftlich planen - ein Modellfall aus Zürich*. Basel: Birkhäuser.

Parodi, O., M. Albiez, S. Meyer-Soylu, C. Waitz. 2016. Das „Quartier Zukunft – Labor Stadt“: ein reales Reallabor. In: *Resilienz. Stadt und Region - Reallabore der resilienzorientierten Transformation*. Edited by U. Hahn, H. Kegler. Frankfurt am Main: PL Academic Research. 101–125.

Rose, M., Schleicher, K., Maibaum, K. (2017): Transforming Well-Being in Wuppertal: Conditions and Constraints. In: *Sustainability* 9 (12), 2375, doi: 10.3390/su9122375.

Stokman, A., Uhl, E. 2017. (Hrsg.) *Zukunft der Mobilitätskultur (Band 19)*. Internationales Zentrum für Kultur- und Technikforschung (IZKT), Stuttgart: Universität Stuttgart.

Wanner, M., A. Hilger, J. Westerkowski, M. Rose, F. Stelzer, N. Schöpke. Forthcoming. Towards a cyclical concept of real-world laboratories. A transdisciplinary research practice for sustainability transitions. *disP – The Planning Review*.