

# The Triple Helix Model and the Meta-Stabilization of Urban Technologies in Smart Cities

Loet Leydesdorff, Mark Deakin

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The Triple Helix model of university-industry-government relations can be generalized from a neo-institutional model of networks to a neo-evolutionary model of how three selection environments operate upon one another. The neo-evolutionary model enables us to appreciate both organizational integration in university-industry-government relations and differentiation among functions like the generation of intellectual capital, creation of wealth, and their attending legislation. The specification of innovation systems in terms of nations, sectors, cities, and regions can then be formulated as empirical questions: is synergy generated among functions in networks of relations? This Triple Helix model enables us to study the knowledge base of an urban economy in terms of a trade-off between locally stabilized and (potentially locked-in) trajectories versus the techno-economic and cultural development regimes which work with one more degree of freedom at the global level. The meta-stabilizing potentials of urban technologies between these two levels can be used reflexively as the intelligence of a creative reconstruction making cities smart(er).

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