The PowerMatcher: Smart Coordination for the Smart Electricity Grid

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One of the world's most critical infrastructures, the electricity grid, is facing huge challenges in the near future. The rise in electricity generated from the wind and sun poses a challenge in balancing supply and demand in the grid. At the same time, the *electrification of everything* drives our ageing distribution networks to their capacity limits. The PowerMatcher, a novel coordination mechanism, was developed to address these challenges. This technology integrates large amounts of renewable energy in the electricity system and, at the same time, avoids overload situations in the electricity infrastructure. The technology was designed to be highly scalable and to protect the privacy of electricity consumers.

The PowerMatcher: Smart Coordination for the Smart Electricity Grid gives a thorough insight into this technology, its use and merits in specific application cases, as well as its performance in the field.

Koen Kok is senior scientist smart electricity grids at TNO in The Netherlands. In his research, he combines electrical engineering and control engineering with computational intelligence. He has extensive research experience in the fields of market-based control of power systems, smart grid architectures, and integration of distributed energy resources and demand response in the electricity system. Key results have been field deployed and commercialized.

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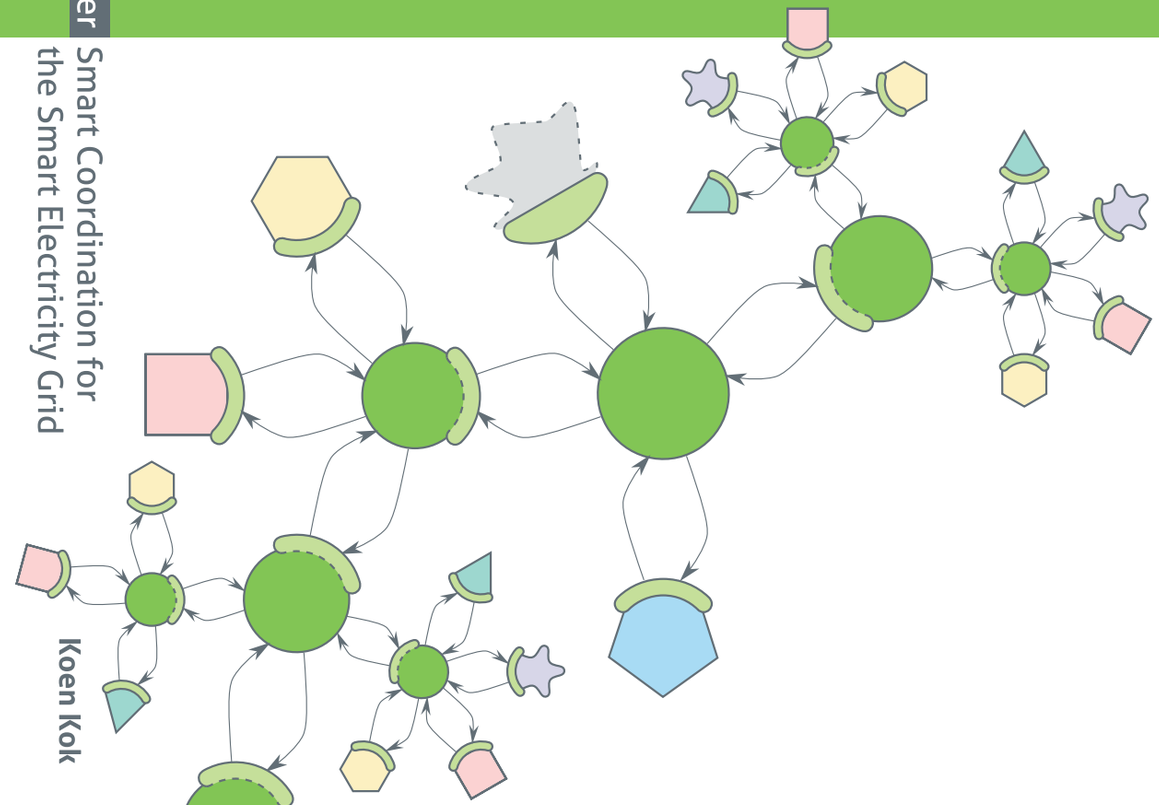

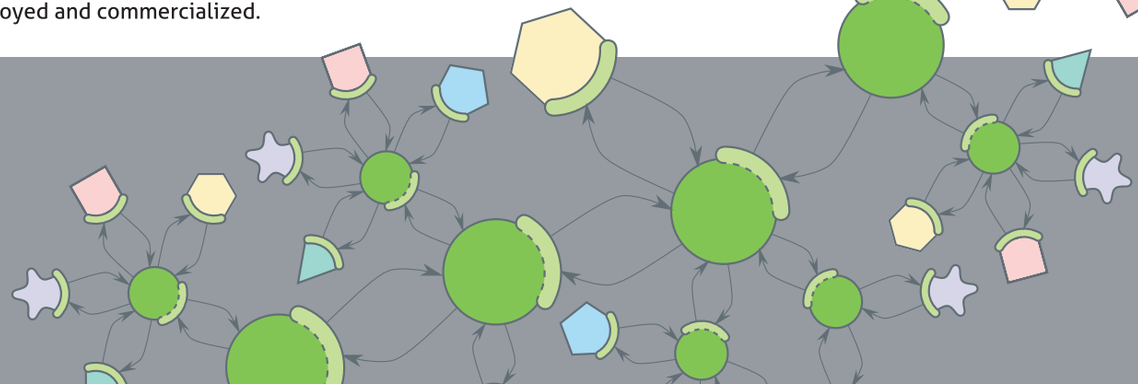

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