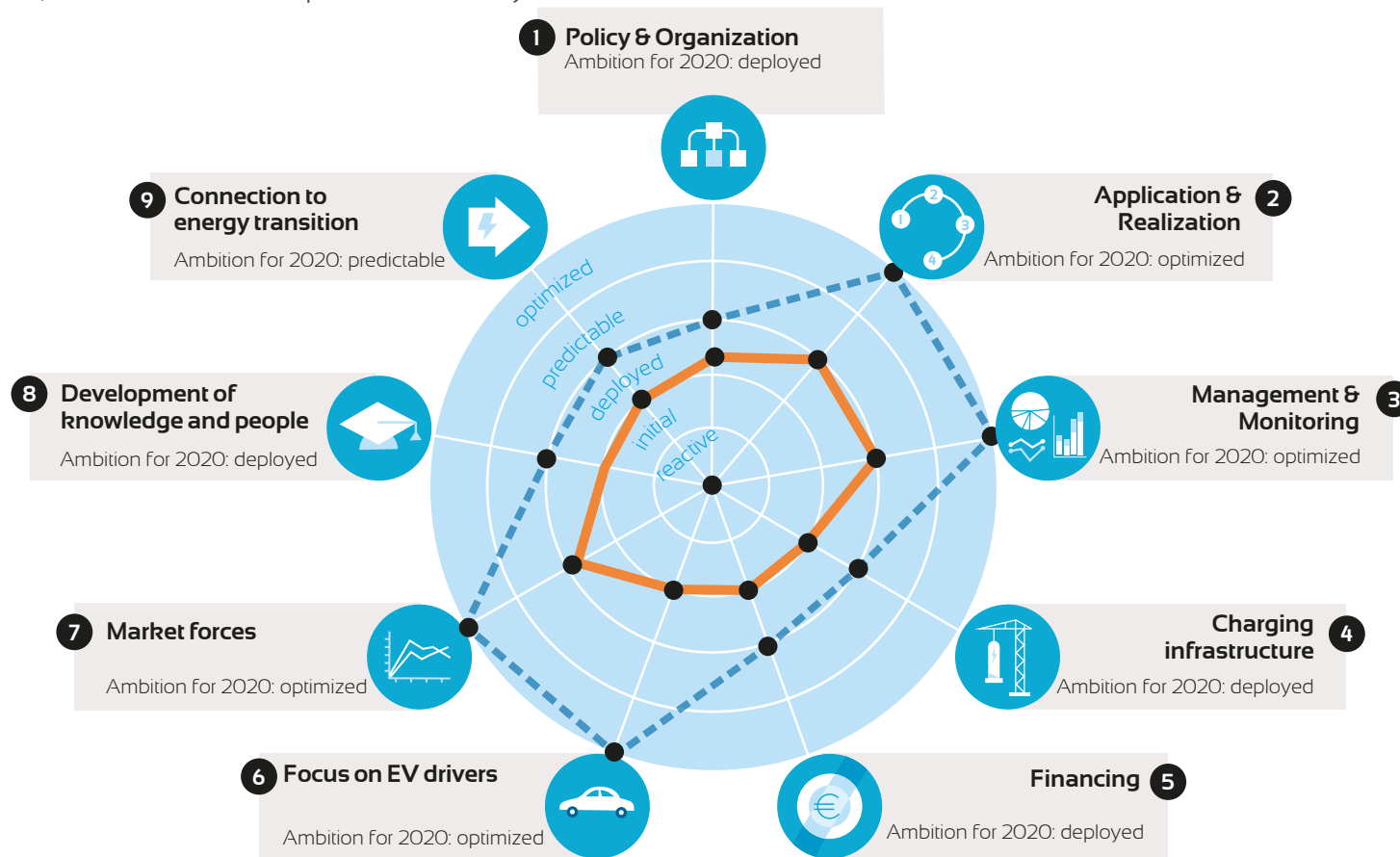


Maturity model: Public Charging of Electric Vehicles

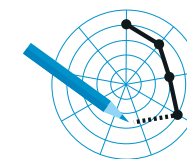
Working towards a professional market



The market for public charging infrastructure is entering a new phase. Focus is shifting from costs to professionalization. The goal: to realize an efficient, independent and service-oriented market with lower prices. Together with government, market and scientific parties, NKL has developed a maturity model.

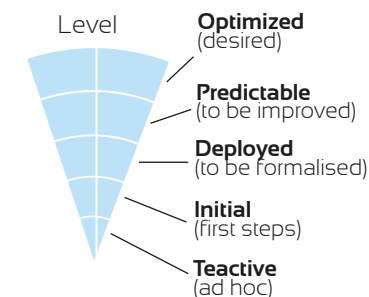


Complete the model for yourself:



Current status and ambition

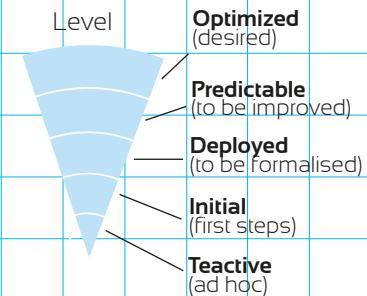
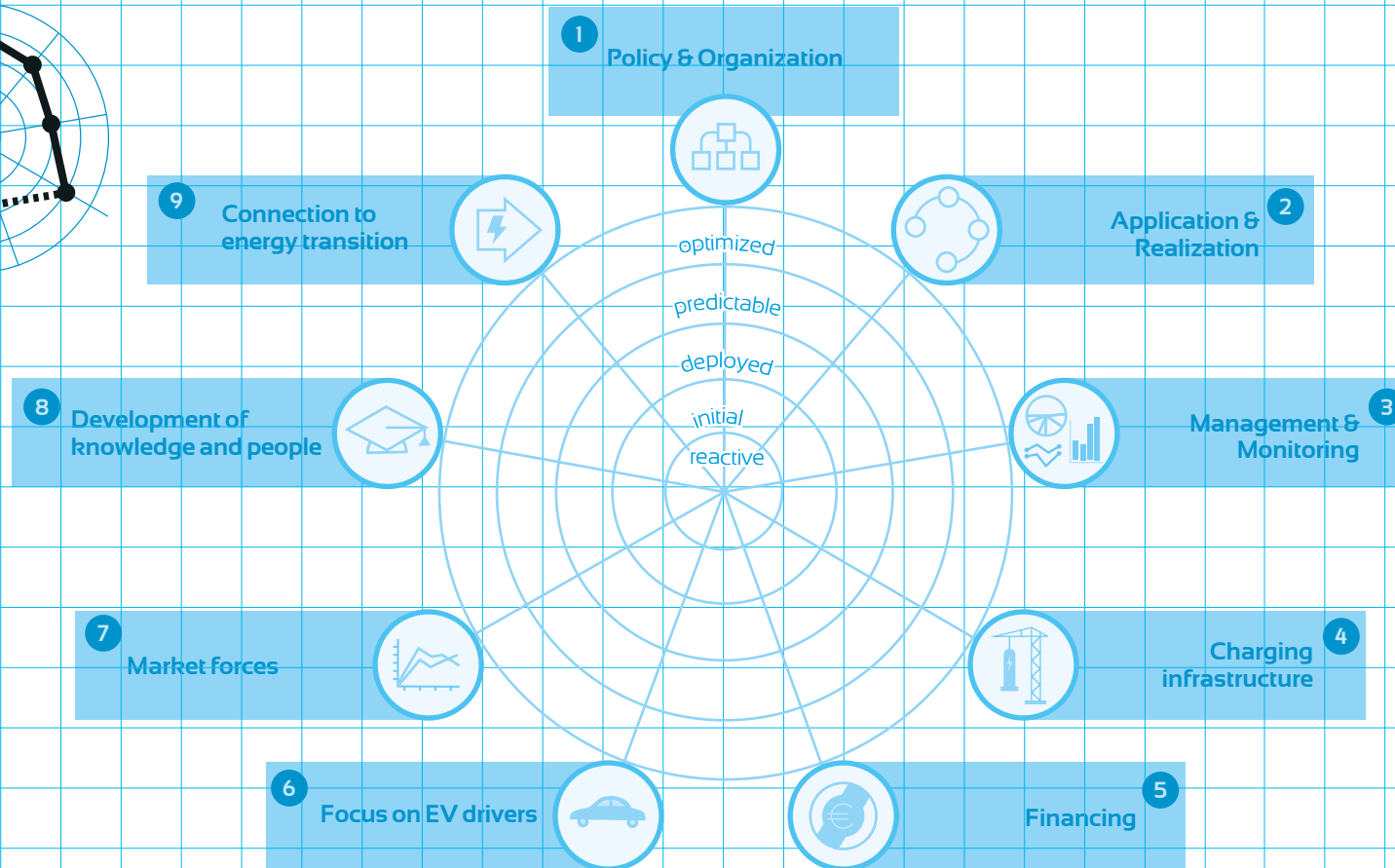
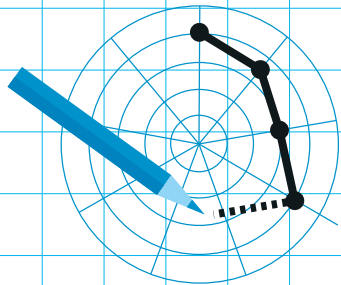
— Current
- - - 2020



- 1 How is policy organized within the various municipalities/regions/provinces? To what degree is it integrated into other processes?
- 2 How has the process of applying for and realizing a public charging point been arranged?
- 3 How is management and monitoring of the public charging infrastructure carried out within the various municipalities/regions/provinces?
- 4 How are public charging points being installed in the context of optimizing the charging infrastructure?
- 5 To what degree is a competitive marketplace – one that does not rely on subsidies for installation, operation or innovation – present?
- 6 Are the people driving EVs being taken into account?
- 7 To what degree does an open and competitive marketplace exist?
- 8 Will there be enough knowledge and people available to allow us to meet the projected targets for growth?
- 9 Is the roll-out of charging infrastructure being sufficiently coordinated with the energy transition?

Working towards a professional market

Complete the model for yourself:



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Working towards a professional market



	Policy & Organization	Application & Realization	Management & Monitoring	Charging Infrastructure	Financing	Focus on EV drivers	Market forces	Development of knowledge and people	Connection to energy transition
Mature 5 optimized	<ul style="list-style-type: none"> Clear-cut policy agreements at the municipal/ regional levels Integration into processes and adjoining sectors 	<ul style="list-style-type: none"> Integration into processes Predictable, short processing times Pro-active and systematic approach Application and registration coordinated between parties 	<ul style="list-style-type: none"> Operationally efficient and effective Info for better use of charging infra Independent of any one party Long(er)-term centralized management agreements 	<ul style="list-style-type: none"> Predictable delivery/surplus Insight into flexible charging at connection level and tailored to specific energy system 	<ul style="list-style-type: none"> Maximum efficiency Use revenue to finance innovation Insight into fixed costs versus additional services Transparent cost structure 	<ul style="list-style-type: none"> Prioritize customer experience and customer satisfaction Services are independent of CPO/MSP (for ex.: real-time insight into location, rates and availability) Customer interaction aimed at product improvement 	<ul style="list-style-type: none"> Open market with new entrants and innovations Healthy business models with distinctive propositions Investors maintain long-term involvement 	<ul style="list-style-type: none"> Sufficient knowledge and experience to facilitate growth of charging infra Guarantee continuity within the team Regular internal knowledge-sharing 	<ul style="list-style-type: none"> Developments related to charging infrastructure are integral part of energy transition Coordinated approach
Level 4 predictable									
3 deployed	<ul style="list-style-type: none"> Policy at the municipal level Discussion and coordination with chain partners Basic agreements Responsibility lies with municipalities 	<ul style="list-style-type: none"> Predictable process for municipalities Quantify but not guide processing time Each party has own system Limited integration with chain partners 	<ul style="list-style-type: none"> Involved parties set requirements Limited coordination of and approach to implementation & management Limited reporting across entire charging infrastructure Involved parties set requirements Limited coordination of and approach to implementation & management Limited reporting across entire charging infrastructure 	<ul style="list-style-type: none"> Local initiatives for balancing/ coordinating grid congestion and voltage issues Identify bottlenecks at neighborhood/street level 	<ul style="list-style-type: none"> Some market segments profitable without subsidies Subsidize/incentivize needed investments Insight into costs of the value chain 	<ul style="list-style-type: none"> Focus market parties on customer perception Reliable insight into costs/ location of each CPO Development of specific services 	<ul style="list-style-type: none"> Market parties and earnings models aimed at existing market roles Market not yet transparent and suitable for comparison 	<ul style="list-style-type: none"> Staffing usually sufficient Some knowledge and experience among a small group of people Occasional knowledge development on new or adjacent sectors via third parties Personal involvement and expertise determine progress No responsibilities specified Hardly any knowledge/ expertise present 	<ul style="list-style-type: none"> Charging infrastructure is area for attention during energy transition Limited coordination with other sectors; is primarily focused on practical issues/problems No coordination/ consultation between charging infrastructure and other sectors involved in energy transition
2 initial									
1 reactive	<ul style="list-style-type: none"> No policy in place Ad hoc decisions by stakeholders Inconsistent solutions 	<ul style="list-style-type: none"> Reactive Applications reviewed ad hoc No dedicated process or system 	<ul style="list-style-type: none"> Lacks coordination Charging points managed individually 	<ul style="list-style-type: none"> Social necessity is leading for placement No optimization of electricity consumption/ delivery 	<ul style="list-style-type: none"> Charging infrastructure developing by means of subsidies and incentives 	<ul style="list-style-type: none"> No clear focus on customer experience and perception Focus on energy transition and technology 	<ul style="list-style-type: none"> Regulated non-profits dominate the market Social necessity is guiding implementation 		

Mature



Level



Just getting started