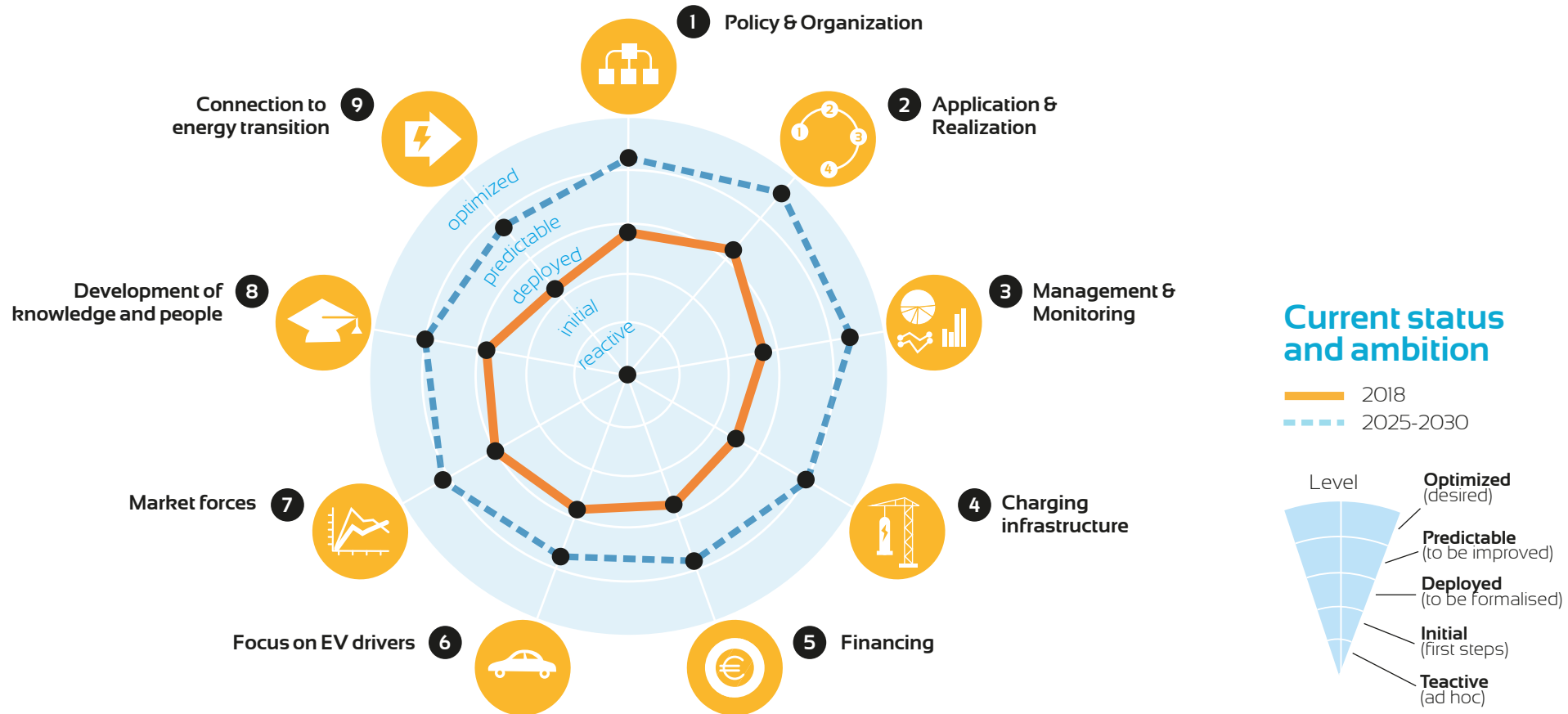











## Working towards a professional market

To cope with the expected growth of electric transport, the priority now is to further develop the Dutch EV market. The focus is changing from cost reduction to a professional market. The NKL EV Public Charging Benchmark 2018 formulates the most important action points.



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

# The Netherlands Maturity Model Public Charging of Electric Vehicles 2018

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

**Mature** ↑  
**Level** ↔  
**Just getting started** ↓

