

## The Electric City Car e.GO Life

### An RWTH Aachen Campus Development

**Aachen, June 13, 2017** – RWTH Aachen Campus with its network of science and industry enables fast and market-oriented product development and competitive manufacturing for e.GO Mobile AG. As a result, after a mere three years of highly iterative development, series production of the e.GO Life will begin in spring 2018 at a new factory in Aachen Rothe Erde. The State of North Rhine-Westphalia has granted partial funding for the construction of e.GO Mobile AG's production site with the help of the Regional Economic Development Program NRW (RWP). The standard e.GO city car costs 15,900 euros (prior to deduction of the German Federal environment incentive), at a range of around 130 km.

"The environment of RWTH Aachen Campus contributed to the fact that this close-to-production car was developed with a budget of less than 30 million euros", says Prof. Günther Schuh, initiator of the RWTH Aachen Campus and Managing Director of RWTH Aachen Campus GmbH. "Initial issues will be investigated and clarified on site, for example via a highly iterative prototype development. Dynamics and speed are defining features of RWTH Aachen Campus." Experts from science and industry carry out research in relevant, interdisciplinary topics side by side on RWTH Aachen Campus. Fields in which long-term research will be carried out are represented as clusters. These consist of centers, where teams of scientists from different fields and industry consortia develop visionary solutions for issues of the future. "The infrastructure of RWTH Aachen Campus gives it the potential of becoming a center of innovation for Germany, possibly even for Europe", Prof. Günther Schuh continues.

In the case of the Electric City Car e.GO Life, for example, researchers wanted to prove that Industrie 4.0 allows highly iterative development processes and particularly cost-efficient production of prototypes and small numbers. In cooperation with RWTH Aachen scientists, the e.GO team have been applying the Scrum process to car development. In this process, 30% of the initial prototype was made of 3D-printed components. PLM software permits both real and virtual construction and parallel development of different functional prototypes by teams in different locations.

Various centers from the Production Engineering, Smart Logistics and

Photonics Clusters were involved in the development of the Electric City Car e.GO Life:

### **European 4.0 Transformation Center within the Smart Logistics Cluster**

The European 4.0 Transformation Center (E4TC) provides a framework for and guides e.GO Mobile AG's 4.0 Transformation Program. The E4TC enrolls technology and industry businesses required for this purpose and this way creates a unique platform for 4.0 transformations of products and processes. Cooperating with its members and in short-cycle sprints, the Center develops the tools and IT architecture indispensable for agile development of innovative electric cars and flexible production, sales and service processes.

### **Demonstration Factory within the Smart Logistics Cluster**

The Demonstration Factory (DFA) combines production engineering practice, research and further education. This is where the car cases of the e.GO prototypes and pre-series cars are being manufactured. The production environment at the Demonstration Factory does, however, also provide researchers and industry stakeholders such as the e.GO Mobile AG with a space to investigate and implement Industrie 4.0 issues in real-life operations.

### **ACAM Aachen Center for Additive Manufacturing within the Photonics Cluster**

In cooperation with e.GO Mobile AG, ACAM (Aachen Center for Additive Manufacturing) promotes additive manufacturing as a core element of agile and adaptive production. One key issue currently being investigated is the possibility of combining individual product design with additional functions. e.GO has set standards of integration in additive manufacturing – from agile car development to targeted use in series production. In this, ACAM has provided the business with its comprehensive product design and manufacturing processes expertise.

### **WBA Tool Making Academy Aachen within the Production Engineering Cluster**

WBA Tool Making Academy Aachen is the key point of contact on matters pertaining to development and manufacturing of tools and prototypes. The cooperation with e.GO Mobile AG encompasses the production of parts for the prototypes of the first cars as well as intensive consulting on product development. WBA furthermore assists in identifying suitable materials, the design of parts in line with stipulated requirements as well as process optimization to improve manufacturing of the parts and bring costs down at an even earlier stage while shortening lead times. The WBA has applied innovative technologies

and a great range of manufacturing processes coupled with comprehensive manufacturing expertise of its staff.

### **Ramp-Up Factory within the Production Engineering Cluster**

Supported by the Ramp-Up Factory, the RWTH Aachen Chair of Production Engineering of E-Mobility Components (PEM) has developed new options of generating and exploring holistic research and production approaches. The production processes for electric cars are mapped in the Ramp-Up Factory. The focus here is on the car as a whole so that the chassis production infrastructure, an assembly line and end-of-line test areas can be utilized fully. This potential allows a mapping of the various stages of the e.GO Life car development process from initial mock-up to production-ready prototypes, as well as manufacturing testing of the cars or of individual components. The infrastructure of the Ramp-Up Factory has been funded by the EU as well as the State of North Rhine-Westphalia through the NRW Regional Economic Development Program (RWP) and Ziel2 (ERDF).

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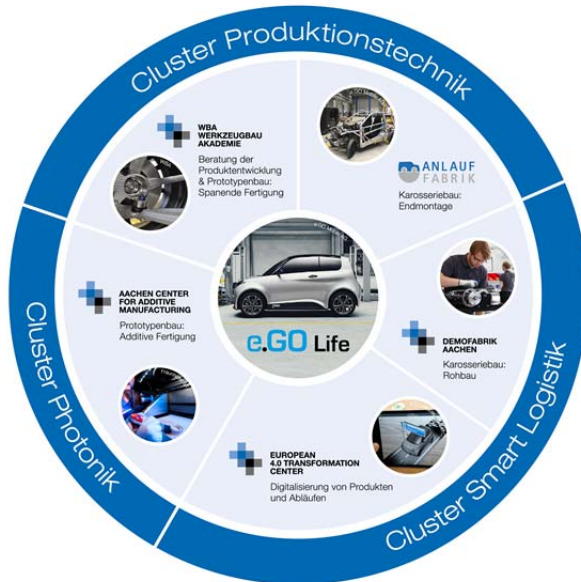
### **Photo material:**



### **Caption:**

The electric city car e.GO Life – an RWTH Aachen Campus development

Copyright: e.GO Mobile AG



Caption: RWTH Aachen Campus – the clusters and centers involved in the development of the electric city car e.GO Life  
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Video:  
The Electric City Car e.GO Life – An RWTH Aachen Campus Development  
<https://youtu.be/xCPuEIKz6-k>

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