

September 12, 2011

SIM-Drive

Hiroshi Shimizu, President

## Invitation to participate in SIM-Drive Corporation's Advanced Development Project III

SIM-Drive Corporation (SIM-Drive: located in Kawasaki-shi, Kanagawa, CEO and President: Prof., Dr. Hiroshi Shimizu), announces that it will start the Advanced Development Project III (Project III) from 23<sup>rd</sup> February 2013 to 31<sup>st</sup> March 2014. SIM-Drive also announces that it starts invitation to the Project III from today.

### 1. Advanced Vehicle Development Project

One of the major characteristics of Advanced Development Project is the adoption of an open-source scheme. This is because part of our mission is to spread the use of the combined in-wheel motor and component built-in frame technologies, instead of manufacturing and selling electric vehicles as final products. When people from participating organizations experience the electric vehicle industry, in which these technologies serve as the core, and then take back the technologies and the contacts they made through this experience to their organizations, the industry will grow even more.

The project offers the program which is open to participate in for all companies and organizations of any genre or field who are interested in the electric vehicle industry.

### 2. Electric Vehicle to be developed in the Advanced Vehicle Development Project III

In the Advanced Vehicle Development Project III, as was the cases of Project I and II, we would adopt the In wheel Motor Technology and Component Built-in Frame Technology effectively. With these technologies, we would seek effective use of motors, small air drag, and the minimized tire rolling resistance coefficient. Further features to put on prototype to be developed in the Advanced Vehicle Development Project III would be generated through the project.

### 3. Return to the Participants of the Advanced Vehicle Development Project III

Information and privileges provided to the Participants are as follows:

Reports and Drawings	Experiences in actual prototype development	Right to use the developed model
<ul style="list-style-type: none"> <li>• Specifications</li> <li>• Major Drawings</li> <li>• Overall Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>• Realize the electric vehicle; advanced developed model, with new concept</li> <li>• Learn fundamental technologies through</li> </ul>	<ul style="list-style-type: none"> <li>• In-house evaluation tests</li> <li>• Use as a material for</li> </ul>

	electric vehicle development •Obtain fundamental information on electric vehicle business •Expand network with other companies / organizations •Develop human resources	promotions •Use as a material for CSR
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#### 4. Invitation detail of the Advanced Vehicle Development Project III

- ◆Project period : From Feb. 23<sup>rd</sup>,2012 to Mar. 31<sup>st</sup> , 2013
- ◆Participation scale : About 30 organizations
- ◆Application period : From 12<sup>th</sup> September 2011 to the day before of the start of the project, or 22<sup>nd</sup> February 2012.  
\* SIM-Drive will close the invitation after the project started.
- ◆Application target : Company, Local government
- ◆Participation fee : 20 million yen

#### 5. Previous Projects

##### – Advanced Vehicle Development Project I –

SIM-Drive has developed the Advanced Vehicle Development Model No.1 from January 2010 and completed the construction of the vehicle developed under the project. We named the model “SIM-LEI” as its nickname, shown in figure 1. LEI stands for the initial letters of “Leading Efficiency In-wheel motor”. This vehicle reached the target performance to achieve over 300km of range per charge, which is generally pointed as the major concern for the electric vehicle to promote in the market. General specification is shown in list 1. This project collected 34 organizations, out of which are 32 companies and 2 local governments shown in table 2, who intend to enter in the electric vehicle business in the future.

Figure 1. SIM-LEI

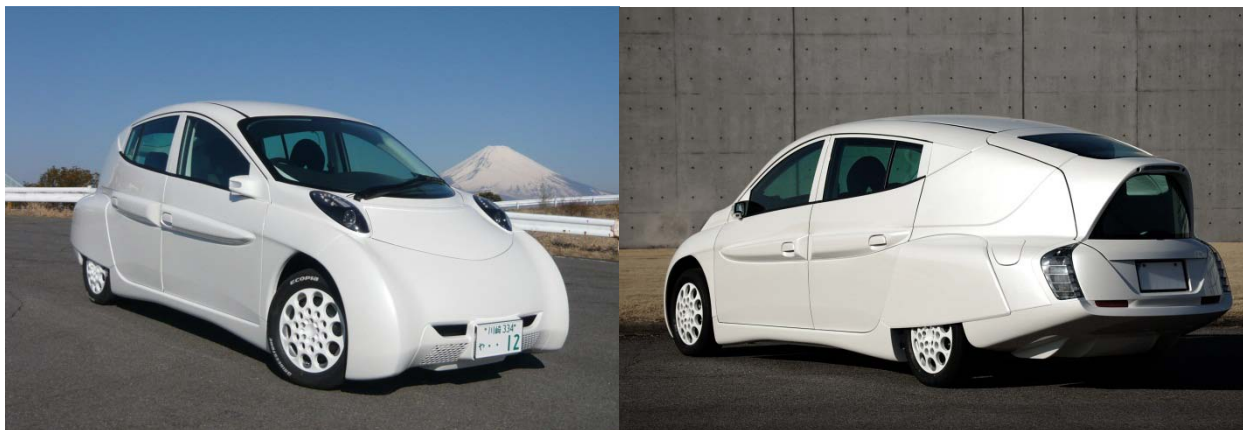


Table 1: General Specification of SIM-LEI

Overall Length / Width / Height	4700mm/1600mm/1550mm
Number of seat places	4
Vehicle Weight	1650kg
Drive System	Outer rotor direct drive in-wheel motor
Drive	4WD
Range per charge by JC-08 mode: at 100km/h constant:	333km 305km
Driving energy consumption by JC-08 mode: at 100km/h constant:	77Wh/km 84Wh/km
Standing start acceleration; 0→100km/h	4.8seconds
Maximum speed	150km/h

Table 2, 34 establishments and organizations participated **(Alphabetical order)**  
[Organizations who permitted the announcement of their participation]

<b>Benesse Holdings, Inc. (Education)</b>	<b>Nikkan Industries Co., Ltd. (Material)</b>
<b>Dynax Corporation (P)</b>	<b>Nippon Telegraph and Telephone East Corp</b>
<b>Enelop, Inc.(E)</b>	<b>Okayama Prefectural Government</b>
<b>IHI Corporation (H)</b>	<b>Olympus Corporation (Precision)</b>
<b>Inoue Manufacturing Co., Ltd. (Machinery)</b>	<b>Pioneer Corporation (Electrical)</b>
<b>Iriso Electronics Co., Ltd. (P)</b>	<b>Sanden Corporation (P)</b>
<b>Isuzu Motors Limited (A)</b>	<b>Serio Corporation (Software)</b>
<b>Japan Aviation Electronics Industry, Ltd. (P)</b>	<b>Tanaka Kikinzoku Group (Material)</b>
<b>Kureha Corporation (Material)</b>	<b>TECO Electric &amp; Machinery Co., Ltd.</b>
<b>Mitsubishi Corporation (Trading)</b>	<b>Teikoku Piston Ring Co., Ltd. (P)</b>
<b>Mitsubishi Motors Corporation (A)</b>	<b>THK Co., Ltd. (P)</b>
<b>Mitsui &amp; Co., Ltd. (Trading)</b>	<b>Tokyo Electric Power Company (Energy)</b>
<b>Mitsuiwa Corporation (Trading)</b>	<b>Totoku Toryo Co., Ltd. (M, Paint)</b>
<b>Nano-Optonics Energy, Inc. (E&amp;E)</b>	<b>Tottori Prefectural Government</b>

(A: Automobile manufacturer, E: Environment, E & E: Environment & Energy, P: Auto parts,)

「SIM-LEI」 will be exhibited in the exhibitions below;

- Electric Vehicle Development Technology Exhibition (EVEX) 2011  
to be held between 12<sup>th</sup> and 14<sup>th</sup> October 2011 at Pacifico Yokohama
- Electric Vehicle Industry Exhibition  
to be held between 27<sup>th</sup> and 29<sup>th</sup> October 2011 at Tokyo Big Site
- Smart Mobility City 2011 to be held along with Tokyo Motor Show 2011  
to be held between 30<sup>th</sup> November and 11<sup>th</sup> December 2011 at Tokyo Big Site

– **Advanced Vehicle Development Project II** –

The Advanced Vehicle Development Project II collected 34 corporations and organizations as Project I. Advanced Vehicle Development Model No.2 will be developed by the end of March 2012, and will be registered as an assembled model by duly complying Japanese Safety Standard and Technical Regulations in Japan.

The participants are as listed below;

Table 3, 34 establishments and organizations participated (**Alphabetical order**)  
[Organizations who permitted the announcement of their participation]

<b>Advantest Corporation(Electron)</b>	<b>Oiles Corporation(P)</b>
<b>Asahi Kasei Corporation(Material)</b>	<b>Polyplastics Co., Ltd(Material)</b>
<b>BOSCH(P)</b>	<b>PSA Peugeot Citroën(A)</b>
<b>Chiyoda Corporation(Construction)</b>	<b>Somic Ishikawa Inc. (P)</b>
<b>Dassault Systems K.K. (Software)</b>	<b>Sunstar Engineering Inc. (Material)</b>
<b>Du Pont Kabushiki Kaisha(Material)</b>	<b>Takata Corporation(P)</b>
<b>Du Pont-Mitsui Polychemicals Co., Ltd(Material)</b>	<b>TBK Co., Ltd(P)</b>
<b>Hitachi Advanced Digital, Inc.(Electron)</b>	<b>Tohoku Electric Power Co., Inc. (Energy)</b>
<b>Hitachi Chemical Company, Ltd. (Material)</b>	<b>Toppan Printing Co., Ltd.(Publication)</b>
<b>Kawasaki Industrial Co., Ltd. (P)</b>	<b>Toray Industries, Inc. (Material)</b>
<b>Kuraray Co., Ltd. (Material)</b>	<b>Tokyo MK Corporation(Transportation)</b>
<b>Mikuni Corporation(P)</b>	<b>Toyota Tsusho Corporation(Trading)</b>
<b>Mitsuuroko Co., Ltd(Energy)</b>	<b>T.RAD Co., Ltd(P)</b>
<b>Nihon Parkerizing Co., Ltd(Surface treatment)</b>	

(A: Automobile manufacturer, P: Auto parts,)

## 6. Company Overview

Established :August 2009

Location :KBIC#113, 7-7 Shinkawasaki, Saiwai-ku, Kawasaki-shi, 212-0032, Japan

Capital :99 million yen \*including capital reserve

Officers :Chairman Soichiro Fukutake(Representative Director, Chairman and CEO of Benesse Holdings, Inc)

President Hiroshi Shimizu(Professor at Keio University)

Director Kenichi Hatori(Chairman of Gulliver International Co., Ltd.)

Director Hiroshi Fujiwara(Representative Director of Nano-Optonics Energy, Inc.)

Director Hideaki Fukutake(Director of efu Investment Ltd.)

Auditor Tadaaki Kimura(President of AddlightInc., CPA)

Business activities:

1. Research and development of electric vehicles
2. Research and development of in-wheel motors for electric vehicles and other parts for

electric vehicles

3. Consulting pertaining to the development of electric vehicles

4. Support for basic production of electric vehicles

URL: <http://www.sim-drive.com>

**Contact**

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