

Automotive exterior signal lighting - Vision 2030

„rear look of a small electric rental car combining
signal functions and possible additional indication“

competition handouts

current situation ...

... legal regulations, focus on safety and visibility of signal still remain the basic incentive for automotive exterior signal lighting.

Last decade introduced a new objective for this area - „car signature“. Exterior signal lighting of cars with DRL (Daytime Running Light) or tail/position light define recognition of the car or even the whole brand.

vision 2030 ...

... this decade and years after will bring further incentives directly connected with progress in electric cars, traffic modularity and new communication approaches. Safety and signature aspects will be supplemented by additional indications to communicate with the world through a clear visual message underlining the car recognition.



future incentives

traffic modularity



**CITY TAXI
RENT CAR
CITY SHUTTLE**

<http://www.auto-design.cz>



source: <http://www.netcarshow.com>

electric cars



source: <http://www.edag.de>

future incentives

Latest traffic conceptions of large agglomerations count with rental network of electric vehicles to make traffic modularity more environment friendly and flexible.

Indication of charging level or car availability could be objectives for new lighting entity in portfolio of automotive exterior signal lighting.

Additionally to that, the obvious trend is „personalization“ of cars according to a particular city, like car-city-signature.

future incentives

communication

From on-board data to cloud computing and C2X connectivity



From car key to user-recognition



From mere travelling to a seamless 'life on board' for all passengers



From 'my car' to 'my journey'



<http://www.auto-design.cz>

new technology

<http://www.astron-fiamm-safety.com/>



LED and OLED technology

future incentives

Vehicles will be more integrated into traffic communication systems. They could visualize relevant information for the surroundings (accident or traffic jam warning, how many cars are ahead to reach the issue point).

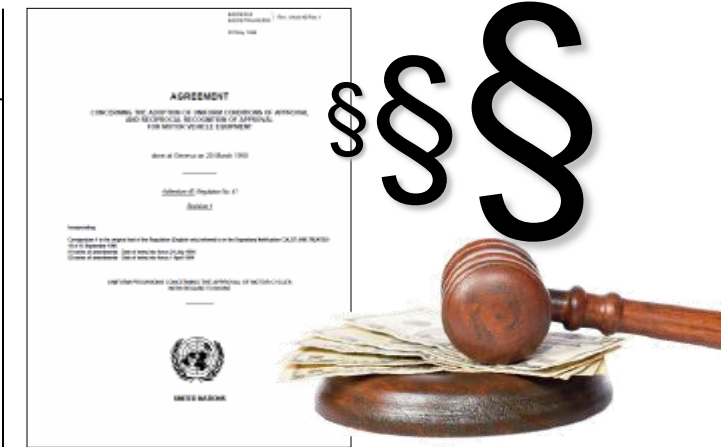
New lighting entity in portfolio of automotive exterior signal lighting could be indication of lane convoy presence and additional information (how far is next exit) as well.

Technology progress in light sources in 2020 will fully open styling possibilities from dotty to planar lit-on appearance, with high level of flexibility and modularity.

current functions

safety and visibility

- clear message
- meet legal regulations



car signature

- styling
- car/brand identification



source: <http://www.auto.cz>

additional indication

car status information

- charging level
- rent status

car2car information

- traffic jam info
- highway lane convoy



source: <http://www.edag.de>



source: <http://www.edag.de>

Is this competition a part of a specific subject of study?

No, it is not. This project is supposed to be a free-time activity for students of specified high schools and universities that represent potential hiring resources for Visteon Co.

Is there any supporting information related to the major of study?

It is not necessarily about the major. The project is focused on students interested in the future and the automotive as a part of it. It can be a good opportunity for students of design to learn more about the automotive and discover the field to apply their talent in, to imagine the future intelligent means of communication in mass transport and how vehicle and signals appearance will be influenced.

Students have limited excess to relevant information, regulations. Does the output necessarily have to be feasible?

Students should use relevant topics from public resources and further develop them on their own. Basically, we expect fresh ideas, so no specific constraints have been given.

What type of software is expected to be used?

There is no limitation, no preference. Output format of the final presentation is ppt or pdf. Supporting software and techniques just depend on students.

What will be the criteria to judge?

The output should be a symbiosis of a good idea and proper visualization. Ideally, we obtain a perfect idea supported by an amazing 3D rendering.



varroc
EXCELLENCE