



Advanced Research for Automotive Lightweight Design

车辆轻量化设计前端方案整合 (ARALW)

Business solutions
应用方案

Turin, Italy

March 2016

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Business Motivations

"New push forward for politics on China's sustainable mobility. Determined to occupy the leading position in the electric car industry, still hand in hand fighting urban pollution, the People's Republic has announced that it will extend incentives for the purchase of environmentally friendly vehicles - which expires at the end of next year - up 2020. the news was beaten directly from **China's Ministry of Finance has published on its website** the new funding rules; the next five years will be devoted to subsidies to those who purchase new cars full electric, hybrid or hydrogen fuel cells, with amounts that will gradually downsize in the 5-year tariff regime. The fully electric-powered car buyers initially will receive incentives of up to up to 55,000 yuan (\$ 8,834), while for the bus plug in grants will be available for up to 500,000 yuan, with the only proviso that they are all products "made in china ".

How was it possible to imagine, the extension of the incentives has been enthusiastically received by the automotive industry, especially by the Chinese giant BYD, the largest manufacturer of electric vehicles in the country; in recent years the sector has largely benefited from the green policies of pro green automotive Government, to the point that the production of e-car at the national level has increased by five times during the first 11 months of this year compared to 2013. Despite this, the goal of Beijing to put 5 million "green" vehicles on Chinese roads by 2020 is still far away.

Further details available on the website of the Chinese Ministry of Finance.

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Company Overall



Our team of consultants with 25 years experience in the industrial sector offers a wide range of consultant services , focus is always on advanced solutions research for next vehicle generation design , through the shared experience of our partners and available suppliers at international and national level.

Ellea 从事整车行业配套方案咨询超过25年，重点关注下一代车型设计的前沿技术和方案整合，商务推广和工业方案齐头并进，依托合作伙伴和供应商扎实的功底，与客户分享多年积攒的经验。

Working Sectors: 专业范畴

- Automotive components forming application (sheet, casting, machining, hydroforming, forging, composite material).

零部件成型和应用（钢材, 铝材的钣金件冲压, 各种合金材料的铸件成型和模具设计, 各类特种机加工和设备设计, 新型材料充液成型技术, 和复合材料的成型设计及工艺设计）

- Automotive Design and current model update by new trends and new concept application (electrical vehicle, lightweight design, racing ride application)

新趋势和新概念应用的车型设计和升级 (电动车开发, 轻量化车型开发和升级, 赛车化调教)

- Automotive manufacturing process design and industrialization (treatment, welding, machining, integration assembly line).

生产工艺设计同步工程开发, 以及相关设计的工业化方案

- Worldwide new launch vehicle models benchmark and reverse engineering analysis, CBU purchasing.

新上市车型采购和对标分析以及逆向工程



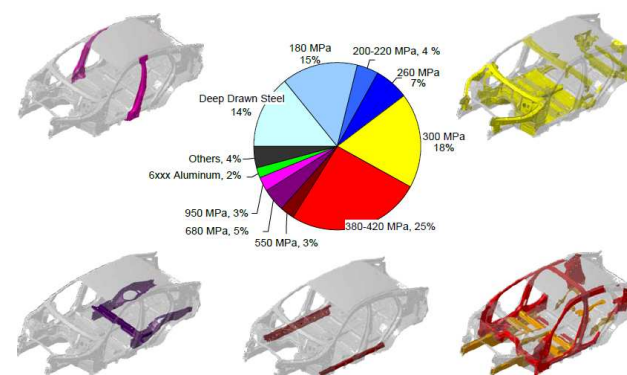
Last Deliverable / Ongoing project Overall



- Lightweight car model design :
 - Aluminium alloy automotive BIW (body in white) design application
 - Mix material automotive BIW (body in white) design application (steel/high stress/aluminium alloy/composite materials)
 - Composite materials automotive BIW (body in white) design
- Aluminium alloy forming technology application (casting / progressive die / extrusion)
- Automotive manufacturing process design and synchronize engineering development
- Carbon fiber& Glass fiber reinforced plastic component design and manufacturing

随着传统车型设计和制造逐渐进入一个平缓期，因为对排放升级的关注和车辆性能上更加激烈的竞争，使得各大车企进入一个技术蓄力和下一阶段发展规划的重要时刻，各种电动方案的尝试，新材料的应用以及随之而来的新材料成型技术的应用为整车设计提供了更广阔的思路 and 空间，轻量化，性能化和低排放被推荐到一个更加的高度，就像Ellea在过去的25年中所做的一样，我们关乎车型的发展趋势和技术开发，依托各大研究机构和供应商，为成熟的技术寻找最佳的设计和应用切入点，提供最便捷的进入市场的途径和整合完毕的工业方案

- 车辆的轻量化设计
 - 铝车身设计
 - 钢铝，镁合金混合车身设计
 - 复合材料车身设计
- 铝件成型技术：铸件 钣金冲压件 挤压成型件
- 整车工艺和工艺设备开发，同步工程开发：预处理 喷漆 焊接 总成装配设计
- 负荷材料部件设计和生产工艺开发：碳素纤维强化材料 玻璃纤维强化材料等



车辆的轻量化设计

铝车身设计

钢铝，镁合金混合车身设计

复合材料车身设计

整车工艺和工艺设备开发，同步工程开发：预处理 喷漆 焊接 总成装配设计

铝件成型技术：铸件 钣金冲压件 挤压成型件

负荷材料部件设计和生产工艺开发：碳纤维强化材料 玻璃纤维强化材料等

Areas of Expertise

專長領域

Ellea offers outsourcing solutions on a national and international level, from conceptual design until the engineering of the complete product.

Ellea在國家和國際層面提供外包解決方案，從概念設計到整個產品的設計。



AUTOMOTIVE

汽車



INDUSTRIAL AUTOMATION

工業自動化



EQUIPMENTS & COMPONENTS

設備及組件



AEROSPACE & DEFENCE

航空航天和國防

汽车底盘

铝

焊接

大学

搜索

停止烟雾

解决方案开发

Conclusions



We are ready to deliver both complete mature solution and some core part of solution. For advanced research we got strong cooperation links with some university labs and all our available suppliers are qualified for technical capacity and project experience. Ellea is always open to evaluate any kind of cooperation in the industrialize field and in commercial development support.

我们自信我们的眼光和筛选，对于成熟方案的应用胸有成竹，前言技术的研发合作与各大高校和供应商携手前进，从资质和项目经验的角度我们汇聚了一批规模不大，但是核心实力扎实的各领域专家和供应商，欢迎对应机构进行合作或者开发洽谈

