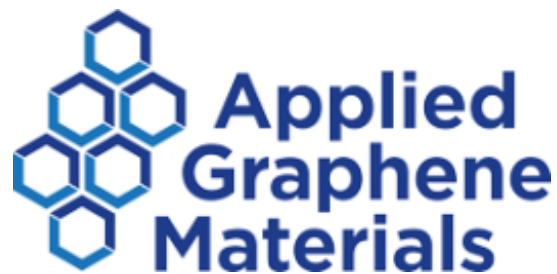


2019年IP投资集团全球
深科技 论坛



2019年10月

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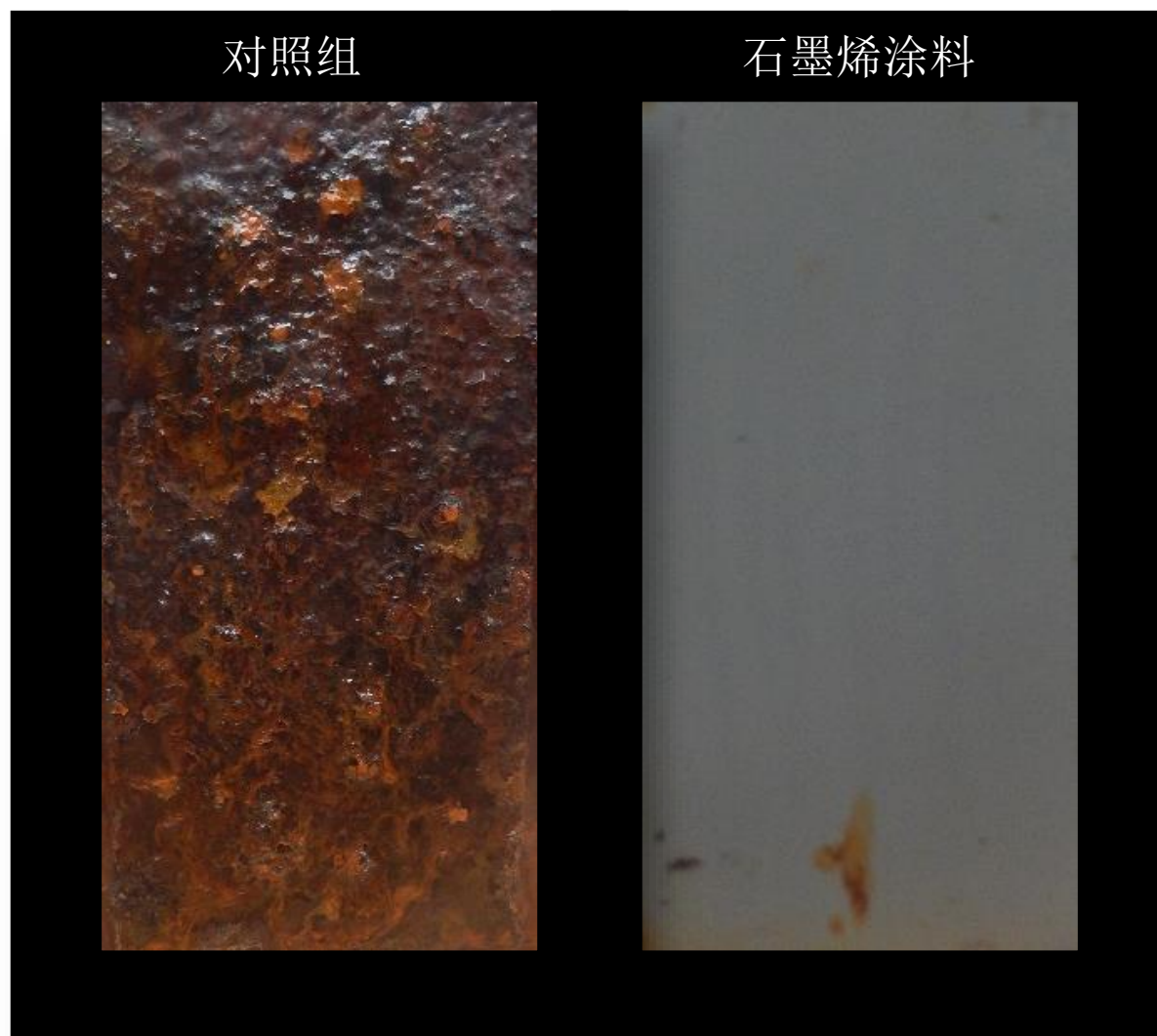
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典型结果：经过3,000小时盐雾试验

石墨烯：令人瞩目的性能

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- 2004年在英国曼彻斯特大学分离而成
- 2010年获得诺贝尔奖

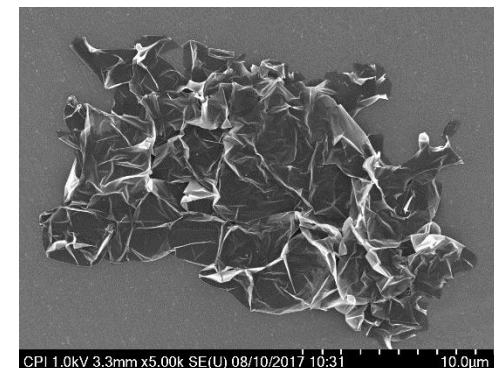
如何**最大化利用**这种可能是21世纪最具颠覆性的材料

AGM独特卖点

6

所有石墨烯公司共同面临的挑战：如何释放潜力

- 令AGM脱颖而出的差异化因素：
- 独特卖点：AGM通过自下而上的专利工艺，制造高规格石墨烯
 - 独特工艺技术用于制造石墨烯纳米片
- 独特卖点：AGM获得专利的分散体化学：实现成功使用的关键促成因素
 - 契合应用的一系列化学工艺
 - 绿色环保的解决方案
 - 符合最终用途的优化分散技术
 - 延长添加剂的使用期限
 - 便于运输



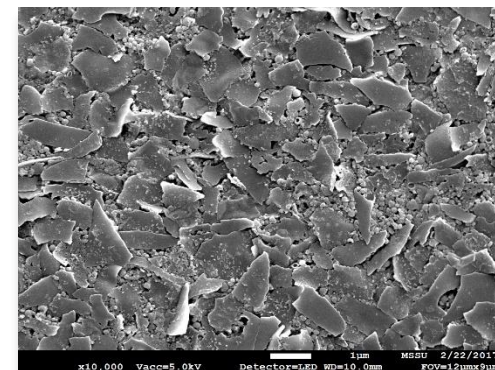
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AGM独特卖点

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所有石墨烯公司共同面临的挑战：如何释放潜力

- 令AGM脱颖而出的差异化因素：
- 独特卖点：AGM的应用技术：明确理解最终用途的需求及其如何实现
 - 与最终客户深入互动
 - 了解目的与需求
 - 定制解决方案：针对最终用途
- 独特卖点：AGM的独家工艺协助轻松使用石墨烯
 - 庞大的数据支持诉求
 - 提供教学与知识，协助客户
 - 为使用纳米材料提供法规指导
- 独特卖点：与AGM携手合作，释放石墨烯用途：
 - 涂料
 - 复合材料
 - 印刷
 - 粘合剂



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石墨烯的巨大潜力

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- 当前早期应用

- 涂料
- 复合材料
- 弹性体
- 高分子聚合物
- 油墨
- 纺织品
- 电池研发

- 未来潜力

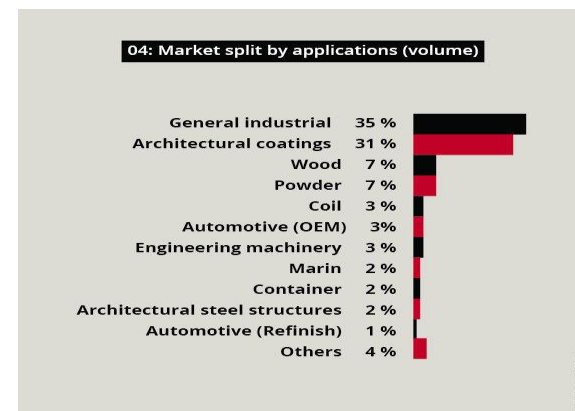
- 生物医学
- 混凝土与建筑工程
- 导电技术
- 消费电子
- 电池平台技术
- 工程聚合物技术
- 过滤
- 润滑剂

- 关键挑战：如何将这种材料投入应用？

- 各方预测，2021年石墨烯粉末市场的规模约为2亿美元，并且可达到较高的年复合增长率（CAGR）

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- 全球涂料市场规模约为**1500亿美元**
- 中国市场规模约为**600亿美元**
- **35-40%**的涂料与涂层制造用于对工业品进行保护或表面处理，分类为“产品处理”（HIS Markit）
- 需要大量制造商参与
- 焦点在于防腐底漆
- 特种底漆市场的价值可能高达**70亿美元**



资料来源：《欧洲涂料》

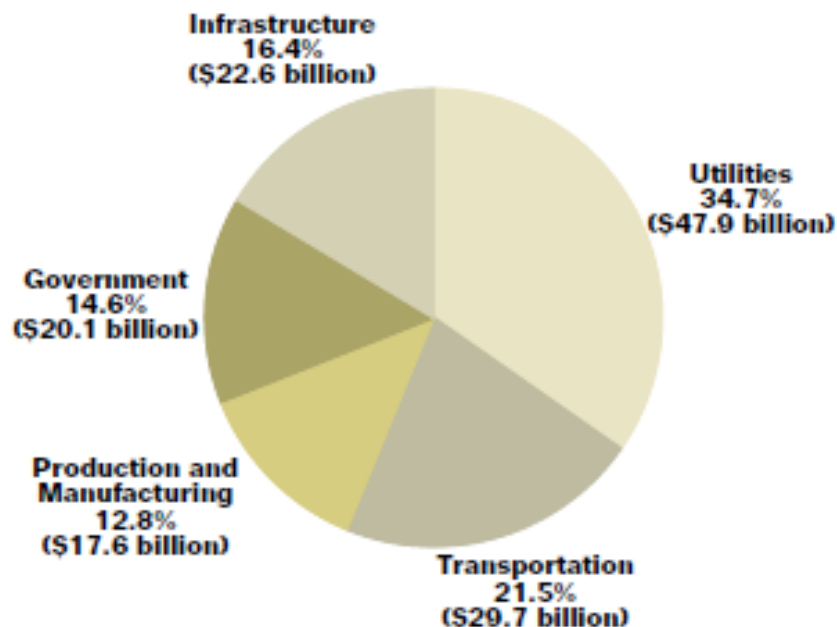
石墨烯代表庞大的市场商机

因腐蚀而造成的损失

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FIGURE 1

COST OF CORROSION IN INDUSTRY CATEGORIES (\$137.9 BILLION)

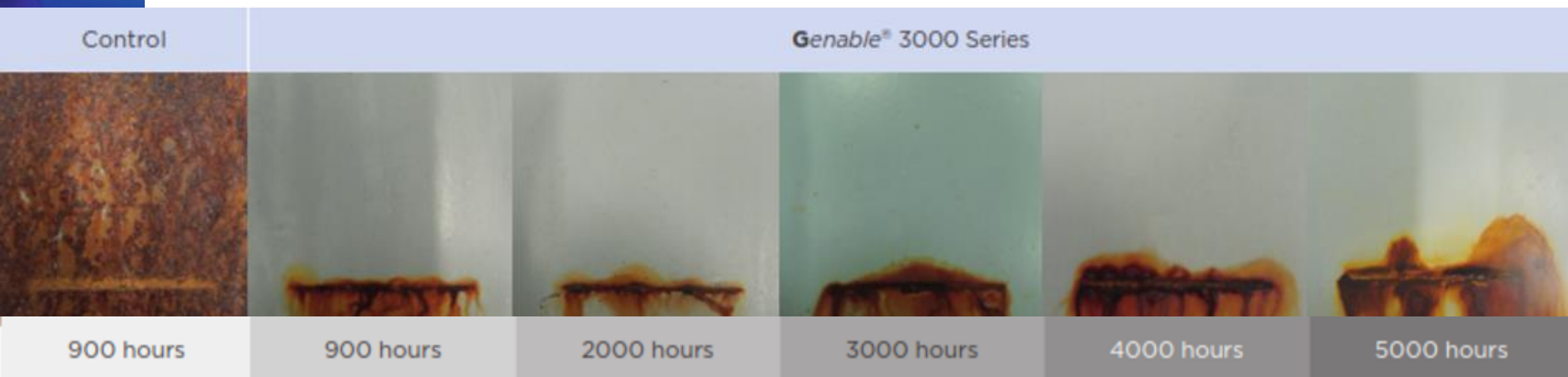


Percentage and dollar contribution to the total cost of corrosion for the five sector categories analyzed.

对于能够更完善对抗腐蚀的涂料存在明确需求
而AGM石墨烯解决方案恰好能满足这一需求

石墨烯：涂料领域的突破性成果

在最终涂层中加入重量比例0.5%的
石墨烯A-GNP，可将性能提高5倍



AGM技术是实现性能成功的关键

涂料解决方案示例

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石墨烯用于阻隔性能
与防腐



缓蚀

独树一帜的
防腐性能

增强腐蚀防
止

延长资产寿命

延长涂层寿
命

降低维护成
本

环保解决方案

降低挥发性
有机物（VOC）
与有毒物质

水基技术

商业客户：涂料市场

13

James Briggs

Applied Nano Systems

HMG

Alltimes Coatings



Genable®

航空航天业



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复合材料、粘合
剂、弹性体

印刷平台技术

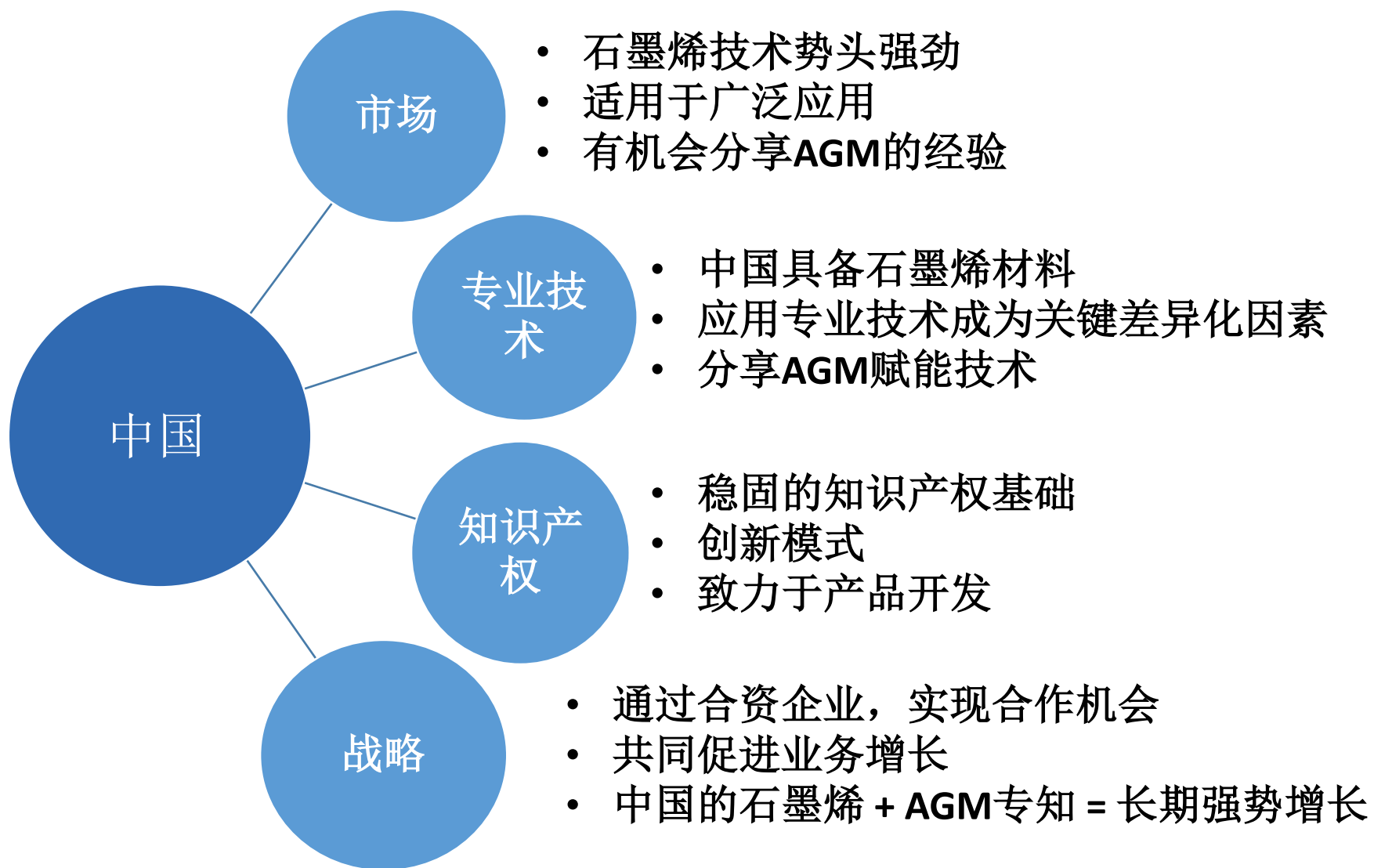


客户：F1赛车与汽车行业、
世纪钓鱼竿公司、航空航天工装公司

功能性材料



客户：空中客车防务及航天公司、Puraglobe润滑剂公司



谢谢关注

