



东方雨虹

2022年度可持续发展报告

Beijing Oriental Yuhong Waterproof Technology Co., Ltd.
Sustainability Report 2022



关于本报告

报告周期：此报告为年度报告。

报告主体：以北京东方雨虹防水技术股份有限公司为主体，包含所属分子公司、事业部及生产研发物流基地等分支机构。

报告范围：2022年1月1日至12月31日。考虑到披露的延续性和可比性，部分信息内容在时间上向前或向后适当延伸。

指代说明：“北京东方雨虹防水技术股份有限公司”在报告中也以“东方雨虹”或“公司”“集团”表示。

编写原则：客观、规范、诚信、透明。

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报告改进：

本年度报告重点展示企业在可持续发展中的实践、为美好人居环境建设作出的贡献。

编写参考：参考借鉴《联合国可持续发展目标企业行动指南》（SDGs）、中国社会科学院《中国企业社会责任报告编制指南》（CASS-CSR4.0）。

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报告获取：本报告仅提供电子版。

1、PDF版请登录公司网站 <http://www.yuhong.com.cn> 或扫描右侧二维码，获取电子版。

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关于东方雨虹

东方雨虹成立于 1995 年，二十余年来，为数以万计的重大基础设施建设、工业建筑和民用、商用建筑提供高品质的系统解决方案，已成为优质的建筑建材系统服务商。

2008 年公司上市，重点产品陆续通过欧盟 CE 认证，德国蓝天使认证、美国 USDA 生物基认证、德国 EC1 认证等多项国内国际认证，并获第十七届“全国质量奖”、2017 年“全国质量标杆”“国家技术创新示范企业”等荣誉认定，上榜《财富》中国上市公司 500 强。

数 看东方雨虹	营业收入	31,213,835,246.24 元
	营业成本	23,171,493,352.71 元
	支付的各项税费	2,770,693,112.26 元
	净利润	2,117,843,197.99 元
	流动资产合计	32,346,290,148.18 元
	研发经费投入	556,315,937.11 元
——深交所信息披露考核 A（优秀）级——		

► 高质量稳健发展

公司追求高质量稳健发展，以主营防水业务为核心延伸上下游及相关产业链，形成建筑防水、民用建材、非织造布、建筑涂料、建筑修缮、节能保温、砂浆粉料、特种薄膜等业务板块合力的建筑建材系统服务体系。控股上海东方雨虹、香港东方雨虹、东方雨虹北美有限责任公司等 100 多家分子公司，在上海金山、湖南岳阳、辽宁锦州、广东惠州、江苏徐州、山东德州、云南昆明、河北唐山、陕西咸阳、安徽芜湖、浙江杭州、山东青岛等建设 52+ 生产研发物流基地。

 生产研发
物流布局图



公司从美国 R&D、意大利 Boato、德国克劳斯玛菲高分子引进先进设备，采用德国爱立许、西门子技术，拜耳概念设计等技术，全流程自动化生产，树立了高产能、高精度、高稳定性的标杆，实现 300 公里辐射半径，24 小时使命必达。

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➤ **研发创新引擎可持续发展**

公司是国家技术创新示范企业及国家高新技术企业，并获批建设特种功能防水材料国家重点实验室，拥有国家认定企业技术中心、博士后科研工作站等研发平台。形成了产品研发、应用技术、生产工艺装备、工程施工技术四大研发中心，并在美国建立东方雨虹防水涂料全球卓越研究中心。

➤ **成为全球建筑建材行业最有价值企业**

作为建筑建材系统服务商，东方雨虹已将优质的产品专业的系统服务广泛应用于房屋建筑、高速铁路、地铁及城市轨道、高速公路和城市道桥、机场和水利设施、综合管廊等众多领域；公司与万科、绿地、保利等 400 余家房地产商、大型企业集团建立了长期友好稳定的战略合作关系，并通过业之峰、城市人家、华浔、全筑等近 3000 家规模型家装公司和建材市场走进千家万户。



随着东方雨虹国际化战略的全面实施，公司生产的优质产品远销德国、巴西、澳大利亚、美国、加拿大、俄罗斯、日本、新加坡、韩国、中非、南非等超过 100 个国家和地区。

实现世界东方雨虹的梦想，全力为构筑和谐人居贡献力量，全面践行“为人类为社会创造持久安全的环境”的企业使命，东方雨虹一直在路上。

可持续发展战略

东方雨虹遵守一切市场规则，敬畏市场规律，尊重同行，坦诚相见、互相尊重、共生共荣。公司追求永续经营，没有终点，只有新起点。不断完善现代企业法人治理结构，在保证投资者回报的前提下，妥善处理好投资者、决策者、管理者之间，以及与各利益相关方的关系。

践行可持续发展是东方雨虹企业运营的内在因子。通过全系统、多维度的责任管理理念，从研发、生产、销售、施工等环节入手，努力以更环保、更节能、更安全、更高效的方式持续提供更好的产品和服务，将可持续理念植入到日常生产运营中。

（一）管理机制

东方雨虹认为可持续发展既要从上而下不遗余力推动，也要真正落地到各项业务领域实际。在顶层设计上，成立可持续发展工作小组，总裁任组长，成员包括各分子品牌一把手、各事业部总经理、各中心总监、各工厂厂长，同时针对核心指标成立专项工作小组，成员之间相互配合，以目标为导向，确保可持续发展战略的顺利推进。



（二）利益相关方沟通参与

东方雨虹遵守一切商业规则和商业伦理，在合规经营基础上追求特色与卓越，秉承诚实、守信、坦诚、公开的商业准则，与利益相关方积极沟通，互促发展。

利益相关方	要求与期望	沟通方式	回应
政府	遵守法律法规	政策指示发布	严格遵守法律法规 响应国家政策号召
	提供就业机会	扩大再生产	提供充足工作岗位
股东	公司治理 业绩持续增长	定期报告及临时公告 股东大会 互动易 投资者热线电话及邮箱 业绩说明会 路演、策略会 实地调研	稳健经营 完善公司经营治理 完善信息披露
员工	薪酬福利	员工调查	多维度详细的调查问卷
	培训成长	交流、培训	专业技能培训 通用知识培训
	职业发展	面对面沟通	员工权益保障
客户	优质产品和服务	售前、售中、售后服务 DMS 系统	项目质量评价 用户回访

工匠	劳务报酬	劳务调查	周薪制
供应商	公开、公平、公正采购	供应商大会 SRM 系统	完善的招标管理
	资质审核	研讨会	合规有序经营
	诚信管理	日常业务交流	内部审计监察
行业	促进行业质量提升	产品及服务品质示范	引领行业正向发展
社区与社会 团体	参与社区发展	员工志愿活动	贡献社会
	支持公益事业	公益活动	参与不同形式公益
	环境保护	节能减排	促进碳中和的实现

股东：2022 年东方雨虹全年发布公告 157 次，其中发布定期报告 4 次，确保投资者的及时监督和公司的透明经营。全年共组织召开股东大会 2 次，董事会 15 次，董事会专门委员会 24 次，监事会 10 次，保证公司规范运营。通过互动易平台、投资者热线电话、公司电子邮箱、举办年度报告网上说明会、特定对象线上交流调研、接待实地调研及召开股东大会等途径建立与投资者通畅的双向沟通渠道，虚心接受投资者的意见建议并积极回复投资者关心的问题。2022 年接听投资者电话咨询千余次，回复互动易咨询 201 次。

员工：公司对中高层、核心业务及技术人员进行激励，在激励对象符合条件时向激励对象启动四期股权激励及员工持股计划，共计激励对象超 8000 人次。2022 年，公司为 2021 年股票期权激励计划第一个行权期符合行权条件的 3294 名激励对象办理完成自主行权手续；公司为第二期限限制性股票激励计划预留部分第四个解锁期解锁条件已经成就的 19 名激励对象当年实际可解锁的 34.7434 万股限制性股票办理了解除限售，并为第三期限限制性股票激励计划第二个解除限售期解除限售条件已经成就的 1552 名激励对象当年实际可解除限售的 872.6077 万股限制性股票办理了解除限售；公司办理完成第二期限限制性股票激励计划预留部分限制性股票及第三期限限制性股票激励计划 309 名激励对象已获授但尚未解除限售的全部或部分限制性股票合计 130.7517 万股的回购注销手续。股权激励真认同、真相信、真奋斗的员工，激励员工在东方雨虹的平台发挥自身价值，实现人生理想。

劳务：东方雨虹积极响应国务院第 724 号令“保障农民工工资支付条例”，全面推广东方雨虹劳务务工人员周薪制、实名制，增强劳务资源竞争力，及时测算工程劳务定额。在完善劳务薪资体系的同时，提供经济适用的保险服务，更好保障一线施工人员的权益。

合作伙伴：2022 年 3 月 29 日，中国房地产业协会和上海易居房地产研究院中国房地产测评中心主办“房地产 TOP500 测评成果发布会”，东方雨虹、卧牛山节能（保温材料）、德爱威（涂料）、东方雨虹建筑修缮、华砂（砂浆）、洛迪 1813 等参评品牌均获评“2022 中国房地产开发企业 500 强首选品牌”。其中，东方雨虹连续第十一年荣登“2022 年中国房地产开发企业 500 强首选供应商服务商品品牌测评榜单”防水材料类十强；在子榜单 TOP100 房企战略合作落地率中，东方雨虹以首选率 65%排在首位；建筑修缮以 25%的首选率蝉联建筑修缮系统服务商第一名；德爱威在高端水性涂料品牌评选中，以 17%品牌首选率荣登榜首。

社区与社团组织：东方雨虹心系社会，积极参与的社团和协会主要包括：中国质量协会、中国建筑防水协会、中国建筑材料联合会、北京科技咨询业协会、北京企业技术中心创新服务联盟、北京总部企业协会、北京市科技金融促进会、北京市国际合作基地联盟、北京市工业（国防）工会、中国机械冶金建材职工技术协会、北京市工业经济联合会

（三）可持续发展荣誉与奖项



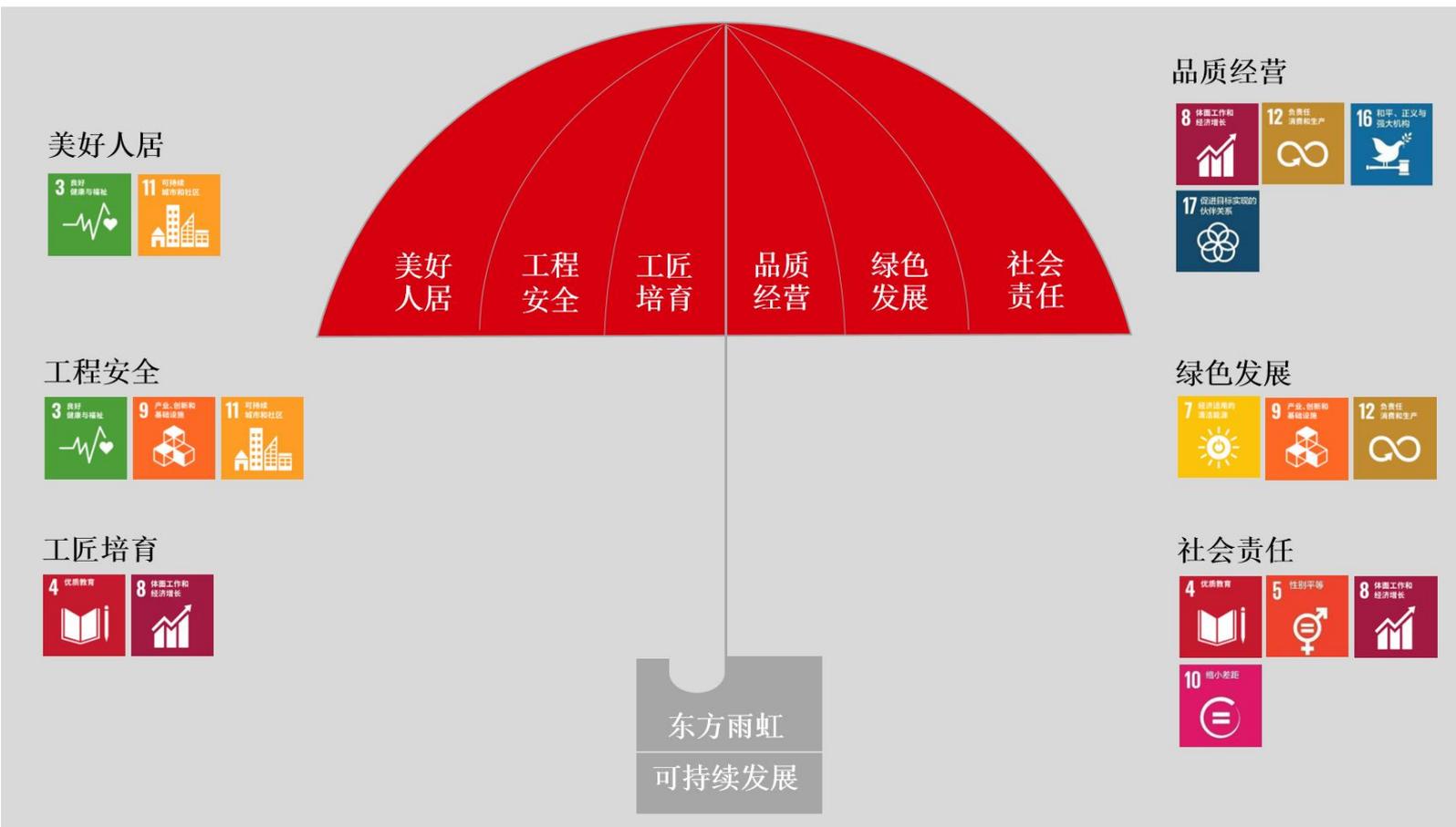
HONOUR

（四）可持续发展-实质性议题识别

东方雨虹通过与利益相关方的长效沟通交流，借鉴《可持续发展报告指南》相关要求，以联合国可持续发展目标 SDGs 为努力方向，识别来自众多利益相关方的议题，从而确认东方雨虹实质性议题矩阵。



在此基础上，形成可持续发展的“伞”模型，充分保障公司可持续发展战略的稳步落地。



(五) 可持续发展关键绩效指标

经营类	环境类	社会类
销售足迹遍及 136 个国家和地区 获得 39 个银行授信 授信总额度 1945902.5 万元 品牌首选率 65% 全年研发投入 55,631.59 万元 截止 2022 年底，有效专利 1522 件 查处假冒伪劣等刑事案件 53 起 产品获得 22 类认证、547 张产品认证证书	环保投入 7354.16 万元 安全投入 3513.4565 万元 环境保护验收 100%通过 环境污染治理设施 100%达标排放 5 个工信部绿色工厂 16 个工厂通过三体系认证 14 个工厂通过能源管理体系认证 工厂光伏屋面发电 927.556 万度电，减少约 5416 吨二氧化碳排放。 环保型 XPS 板直接消耗 CO2 约 371.81 吨	员工人数 12590 人 女性员工占比 22.14% 员工培训累计 129 场，3127 学时 股权激励对象超 8000 人次 累计培训工匠达 88 万人 全国五一奖章 1 人 全国技术能手 14 人 劳务平台施工队伍超 5400 支 长期合作工人超 27 万人

一、人居篇：为美好人居贡献雨虹力量

幸福生活与美好居住环境密不可分，伴随着生活水平逐渐提高，人居要求越来越从“有居”的刚性需求升级到“优居”的改善追求并进阶到对“康居”的品质追求。而这其中，唯有建筑建材行业用高品质、真环保、精做工，助力构建起安心、放心、绿色、低碳的居住空间，才能真正实现美好人居的愿景。



(一) 让居住更安心

东方雨虹始终将安全、环保置于产品首位，旗下大部分产品通过了中国环境标志、德国蓝天使、德国 E. L. F.、美国 USDA 生物基、德国莱茵 TüV、德国 FREI VON、德国 EC1、法国室内环境监测 A+ 等国内外权威认证。在与百姓居住密切相关的建材、辅材领域更是不断推陈出新，通过多种环保产品的综合发力，为消费者打造健康环保家居环境提供基础性保障。

家庭防水	家装美缝	墙面抗菌	涂料
水立顿 150 氟碳膜自粘改性沥青防水卷材，免打保护层可外露使用，白色面膜耐紫外线辐射，夏季有效降低屋面温度 20℃， 雨虹 300 自修复型防水涂料采用自主修复技术有效解决因防水层破坏而导致的渗漏问题。 雨虹植本防水涂料，集安全、再生、植物性资源于一身，38%生物基含量，是防水涂料领域“天花板”。	东方雨虹全线美缝剂不含壬基酚、己二胺； 2022 年推出的悦彩银离子抗菌美缝剂，利用银离子抑制微生物体内各种酶的活性，让瓷砖缝隙可有效抗菌，抗菌率达 99%，对黑曲霉、黄曲霉、出芽短梗霉、绿色木霉、腊叶芽枝霉、宛氏拟青霉、球毛壳霉、桔青霉等都有抑制作用，避免瓷砖缝隙出现发霉的情况。	2022 年初，东方雨虹与中国抗菌协会达成战略合作，成立建筑装饰材料抗菌防霉技术联合实验室，率先提出从底到面的抗菌防潮墙面涂装解决方案，采用抗菌防霉双核技术，双道防霉屏障，阻断霉菌滋生通道，达到 99% 抗菌效果，将健康家居的观念植入装修建材市场的前端。	德爱威轻呼吸生物基墙面漆，通过美国 USDA 生物基产品认证(生物基含量高达 30%)，通过德国 E. L. F. 检测，国内 24 小时放心入住等高环保指标，能有效分解室内空气中的游离甲醛；童年小象抗病毒儿童漆，在 24 小时内对潜藏在房间中的甲型流感病毒(H3N2 及 H1N1) 进行高达 99% 的抗菌灭活；阿尔贝娜新尊典墙面漆，高遮盖，易施工，漆膜细腻 涂刷高效，通过了德国 FREI VON 环保标识、新蓝天使认证，环保双重保证，健康由内而生。
地面	瓷砖胶	抹灰石膏	室内空气治理
FD 干式地暖板由高强度 XPS 挤塑板和均热层组成，燃烧性能可达 B1 级，采用溴化 SBS 环保型阻燃剂，不含甲醛、VOC 等有害物质； 楼地面保温隔声系统一孚地，由 FD 保温隔声装饰楼地面一体砖、胶粘剂、瓷砖填缝剂、竖向隔声片、界面剂（必要时）等组成，隔声性能优，满足绿色建筑要求。	臻·隔音轻质大砖瓷砖胶：减重 50% 施工更加轻便；降噪 > 30 分贝，达到 5 级隔音；相比普通瓷砖胶，可以再减少水泥消耗量 21% 瓷砖胶低碳技术：引入“矿物掺合料代替部分高耗能水泥”； 瓷砖胶无尘技术：可有效减少施工过程中粉尘颗粒，保护工人肺部健康。	华砂壁安 S160 轻质抹灰石膏具有涂布率高、质轻、可一次厚批、粘结强度高、与毛细管网结合牢固、不空鼓不开裂、可调节室内湿度、安全环保、保温隔音等特点，成为新型节能空调（毛细管网冷暖辐射空调系统）的好帮手。	雨虹到家服务采用清华大学“清大负氧离子”专利产品+比利时鲁汶大学技术，使用纯物理方式持久生成负氧离子；其中的污染源熏蒸液可治理板材等内含有机污染物产生的异味，生活中氨类、苯类、酸类异味；游离醛净化液用来分解室内甲醛；减碳增氧环境液可以降低人体呼出二氧化碳增加房屋室内负氧离子释放量；备长炭颗粒用于净化吸附封闭空间甲醛。

上述数据来源于东方雨虹实验室数据，可能与实际使用数据存在差异

技术成果：2022年7月，东方雨虹“健康建筑和社区营造理论与关键技术及规模化应用”获得了中国建筑学会颁发的科学技术成果鉴定证书，首创了以“空气、水、舒适、健身、人文、服务”六大健康要素为核心的健康建筑与社区技术指标体系，为我国健康人居环境保障提供了科技支撑。

- ◇ 创建了基于人因工程学的健康建筑和社区环境营造理论体系，支撑了我国健康人居环境建设的创新发展。
- ◇ 研发了实现多重获益增效的健康建筑和社区环境保障关键技术，突破了健康人居环境营造的技术瓶颈。
- ◇ 研制了系列高性能低成本的健康建筑和社区性能提升关键产品与设备，带动了健康人居环境产业的健康发展。
- ◇ 参与创建了符合中国国情的健康建筑和社区集成技术与标准体系，推动了工程化与规模化应用。

东方雨虹优质的产品和服务同样得到了行业广泛认可：

- 2022年7月，2022年度涂料行业&防水行业高峰论坛暨品牌盛会上，东方雨虹民建集团连续第四届获得“家装防水影响力品牌”
- 2022年9月，中国建筑学会学术（上海）论坛暨上海国际建筑文化周现场，孚达公司FD干式地暖产品荣膺“新型低碳科技产品奖”
- 2022年11月，北京晚报发布“2022年家居品牌年终总评”榜单，东方雨虹获得“2022年度十大家居品牌”
- 2023年1月，德爱威 Caparol 188+家居趋势色卡获得“2023德国设计奖-卓越视觉传达设计-特别表彰奖”

（二）让建筑更节能

碳中和战略背景下，建筑的节能减排广受行业关注。中国建筑节能协会发布的《中国建筑能耗与碳排放研究报告（2021）》显示，我国建筑全过程碳排放量约占全国碳排放总量的50%；工业和信息化部、国家发展和改革委员会、生态环境部、住房和城乡建设部等四部门联合印发《建材行业碳达峰实施方案》，提出“十四五”期间，建材产业结构调整取得明显进展，行业节能低碳技术持续推广。

技术成果：2022年12月，“建筑围护结构用自粘聚合物沥青隔汽膜材料关键技术开发及产业化”通过中国建筑材料联合会组织的专家鉴定，达到国际先进水平。

本项目通过对“建筑围护结构用自粘聚合物沥青隔汽膜材料关键技术开发及产业化”中包括结构和组成设计、工业化生产工艺和工程应用关键技术研究，

开发出满足建筑围护结构用隔汽产品；通过工业化关键工序工艺条件和设备的研究，实现规模化生产；通过产品工程应用关键技术研究，形成自粘聚合物沥青隔汽膜材料系统施工方法、产品标准和施工技术规范，达到产品规模化推广和工程应用，实现产业化，满足市场需求，助



力我国节能建筑、低能耗建筑技术发展。

近零能耗建筑：东方雨虹旗下卧牛山建筑节能与联合德国能源署、德国被动房研究所、中国建研院等顶尖机构建立了良好合作，建立国内首个“HEEC 近零能耗建筑智慧平台”。可自产被动式建筑专用防水卷材、被动式建筑专用隔汽卷材、石墨改性模塑聚苯板、岩棉板/条、环保型 XPS 板、胶粘剂和抹面砂浆、耐碱涂覆中碱玻纤网格布、断热桥锚固件、防水隔汽膜、防水透汽膜、饰面砂浆、防水砂浆、MS 胶、断热桥落水口、保温装饰一体化、保温结构一体化、气凝胶复合材料等近零能耗防水保温隔汽产品。



2022年，卧牛山近零能耗建筑设计研究院从零能耗建筑、产能建筑、低碳社区、零碳社区、碳汇、碳足迹、碳标签、碳资产、碳标准等诸多方向出发，对超低/近零能耗项目实施中管理做出了更进一步的整合和指导，进一步稳固了行业领先地位。

案例：山东华建大酒店

山东华建大酒店位于潍坊市临朐县，被动式区域面积4.65万平方米，体型系数0.11，是国内目前最大的被动式酒店。建筑采用被动式外围护系统、被动式门窗及高性能新风热回收系统，可极大降低建筑整体能耗。设计屋面传热系数 $\leq 0.1W/(m^2 \cdot K)$ ，外墙传热系数 $\leq 0.16W/(m^2 \cdot K)$ ，门窗传热系数 $\leq 1.0W/(m^2 \cdot K)$ ，达到了超低能耗建筑的标准。



案例：携手首开打造南通被动式住宅典范

首开·紫郡是首开集团在南通首个被动式超低能耗建筑，项目对精细化施工提出高要求，特别是女儿墙、雨水斗、排风道、通气管道等细部处理，例如不同墙体之间的接缝和对穿螺栓孔的内部，都需要进行额外的气密性处理，使用防水隔汽膜进行粘贴，以此保证建筑整体的气密性。卧牛山用扎实的产品和标准的服务赢得了项目方认可。



太空堡外露屋面节能防水系统：东方雨虹专门打造的冷屋面系列防水系统，防水性能可靠，反射率高、辐射冷却性能优，尤其适用于长年需要保持低温的存储建筑（如粮食储备库、冷冻库）、人员密集及高耗能单位（如数据中心、学校、商场、住宅等）。

系统使用太空抗辐射技术,有效反射紫外线辐照,减少紫外线辐射伤害,降低材料紫外老化,产品使用寿命提升,可降低夏季屋面温度(20-30)℃,减少城市热岛效应,节约夏季制冷能耗,并减少氮、硫化物排放。有效降低夏季屋面温度,使用寿命长。

夏季高温时段(按100天计),室内制冷能耗节能率15%-20%,每1000平米节能用电6000kw·h-8000kw·h,按节约1度电可减少0.997kg二氧化碳计算,可减少二氧化碳排放量5982-7976kg。



虹昇光伏屋面系统: 东方雨虹于2010年率先进行TPO屋面与分布式光伏的结合探索,推出虹昇屋面系统,目前拥有多项TPO与分布式光伏电站结合的成功案例,如常熟奇瑞捷豹路虎、合肥海纳(蔚来)新能源汽车、国轩高科、蜂巢能源动力电池、江阴远景能源、天津常春汽车零部件等项目,累计完成TPO屋面系统超过4000万平米,光伏总装机量达到100MW以上,施工总面积超100万平米。

东方雨虹/虹昇与国电投/中国电力开展战略合作,发挥各自优势,探索新能源开发、建筑光伏防水一体化和节能等业务,共同推进新能源事业;与光伏上下游相关企业开展合作,其中与晶澳太阳能科技股份有限公司携手打造雨虹晶澳新能源科技有限公司,共同推进光伏组件销售、TPO光伏一体化、既有建筑光伏防水改造与修缮等领域的业务拓展。

屋面面积	组件装机容量	年发电量	节约标准煤	减少二氧化碳排放
100万m²	98.4MW	10273万度	约13345吨	约6万吨

雨虹晶澳2022年度相关数据

二、工程篇：系统服务筑牢工程安全保障

工程是人类文明的体现和文明传承的载体，工程建设改善了人类生存环境，提高了人类物质生活水平。我国当前处在城镇化的快速发展时期，各类工程建设日新月异，建筑建材企业在其中同样发挥着重要作用。作为建筑建材系统服务商，东方雨虹躬身做工，将防水、保温、节能、防腐、涂料、修缮等系统性产品和服务运用于各类工程建筑，为建筑安全运行提供了坚实保障。

（一）交通基建

交通顺则经济兴，交通运输是经济发展的重要支撑和强力保障，交通安全更是关系到我们的日常生活。东方雨虹紧密结合交通行业市场需求，加速推进产品研发和升级，坚持以品质为先、与卓越同行，在技术、产品、施工多维领域，为公路、铁路、道桥、隧道等多种交通基础设施建设提供专业服务和系统保障，尽全力守护交通基建安全。

2022年，东方雨虹与安徽省交通规划设计研究院、湖南省交通规划勘察设计院开展技术交流，探讨公路绿色智慧发展新模式；与浙江交工集团股份有限公司养护分公司、中国交通物资有限公司等强强联合，促进交通建设健康发展，为全国公路交通发展贡献力量。

案例：HDPE 助力攀大高速宝鼎隧道项目建设

2022年11月，HDPE 高分子自粘胶膜防水卷材参与建设的攀大高速宝鼎隧道防水工程获得2022年度“建筑防水行业科学技术奖——工程技术奖（金禹奖-防水工程）”。宝鼎隧道地质结构复杂，地下水丰富，岩爆、瓦斯突出，防水等级要求高、防水施工难度很大。东方雨虹 HDPE 高分子自粘胶膜防水卷材以其预铺反粘不窜水、无明火施工、自重小、方便施工等优良性能有效解决项目防水难题，助力项目高质量建设。



（二）工业厂房

工业在宏观经济大盘中承担着“压舱石”作用，我国制造业更是连续13年居世界首位。这其中，各类厂房是工业高质量发展的根基。东方雨虹积极融入实体经济发展浪潮中，用专业、定制化的产品和服务，为不同地域、不同行业、不同类型的工业厂房和设施建设提供系统性解决方案。

其中TPO单层屋面、HDPE预铺反粘、太空堡、虹昇光伏屋面、孚达孚顶堡/挤塑板/孚达酷板、玻璃棉岩棉、地坪等产品系统，已在屋顶、地面、墙体、管道等多个领域中广泛运用，尽全力守护工业实体经济发展。



案例：TPO 屋面系统

兵器装备集团“十四五”期间在全国重点布局的百亿级产业基地之一——哈尔滨东安汽车动力股份有限公司新能源混动系统新基地一期建设项目中，东方雨虹结合项目特性、应用场景，在屋面系统采用 TPO 防水卷材机械固定工法进行标准化施工。TPO 使用寿命长、接缝可焊接、节能环保，特别是突出的低温环境使用适应特性，进一步确保厂房内的现代化生产线无渗漏之忧。

案例：“孚达”孚顶堡

华为松山湖团泊洼 6 号地块项目总建筑面积 56.91 万平方米，是华为团泊洼基地发展战略中重要一环，项目建成后将成为终端无线制造厂房（制造部），打造世界级的智能制造标杆工厂。孚达公司孚顶堡产品用于该项目屋面保温建设，凭借产品自身优异的保温隔热性能、防潮抗渗、高抗压性、尺寸稳定、绿色安全等优势，助力项目高质量建设。

案例：“炆和”玻璃棉

珠海格力高端智能电器（高栏）产业园建设中，为确保厂房的高标准安全，项目采用了“炆和”玻璃棉排烟风管系统。“炆和”防排烟通风管道玻璃棉棉板由均匀细长的玻璃纤维和环保型配方粘结剂经过特殊工艺加工而成，包覆于防排烟系统金属管道的外部，可隔绝火灾烟气的热量通过管壁传递，在火灾时排除烟气和热量，保障人员疏散和消防救援。

案例：德爱威无溶剂环氧自流平系统

德爱威无溶剂环氧彩砂自流平系统是一种由彩色轻浮砂和环氧树脂组成的无缝一体化的复合装饰地坪，可通过不同色彩砂搭配，形成高装饰性地面。凭借出色实力，德爱威助力太阳纸业山东总工厂 PM11&12 的地面升级改造工程，以其无溶剂环氧地坪涂装系统，为太阳纸业打造了专属的工厂车间地坪解决方案，进一步推动了工厂绿色环保建设。

（三）市政设施

联合国人居署《2022 世界城市状况报告》曾指出，提供充足的基础设施、老化基础设施的更新与现代化仍是城市未来的重要优先事项。换言之，城市基础设施建设、更新，也是身处其中居民幸福感、获得感的重要基础。

城镇化建设的重要性不言而喻，而随着城市建设的复杂性、各类新型市政设施不断出现，对技术和产品的严苛程度同样呈现几何级上升。地下隧道、综合管廊、地上的楼宇大厦、海绵城市等“双城”建设，成为越来越多城市的标配。东方雨虹深挖技术潜力，不断拓宽产品应用范围，服务市政建设。

综合管廊施工工艺、构造复杂，施工过程中变形缝、施工缝、穿墙管、预留接口渗漏等都是防水难题，并且《城市综合管廊工程技术规范》中明确规定，综合管廊工程的结构设计使用年限应为 100 年。东方雨虹 HDPE 高分子自粘胶膜防水卷材，以特制高密度聚乙烯片材为基材，复合高粘结力热熔压敏胶，胶层上覆以 PET 膜隔离保护，可以在管廊侧墙及顶板形成防水层，杜绝层间窜水隐患，能有效提高防水系统的可靠性。优质的产品和服务在北京城市副中心、成都沙西线、西安昆明路、贵州六盘水、云南玉溪等多个综合管廊中大显身手。



HDPE 助力成都沙西线综合管廊

成都沙西线改造工程项目是国内首条“蜀绣”主题空间一体化景观街道，在地下综合管廊项目中，东方雨虹 HDPE 高分子自粘胶膜预铺防水系统以其在产品性能、系统服务、使用寿命等方面优势成为项目的防水选择，累计为该项目提供了超 10 万 m² 的 HDPE 预铺反粘高分子自粘胶膜防水卷材，为沙西线地下综合管廊的安全建设、运行保驾护航。

隧道建设领域：已形成明挖法底板预铺反粘防水系统、侧墙抗流挂系统、暗挖盾构区间橡胶密封止水系统、高架段薄涂聚氨酯系统等多个系统。旗下中科建通坚持“专精特新”高质量发展，积极布局运维工程、隧道及地下工程、边坡及基坑工程、减振降噪工程等全产业链，拥有变形缝涌流水土体修复结构、隧道衬砌涌流水病害注浆止水治理结构、隧道垫层隐蔽处渗漏水路径无损探测装置、轨道交通基础设施 AR 智慧巡检软件等专利及软著 10 多项，陆续与中国中铁、中国铁建、中交集团、中建集团、北京、深圳、青岛、长春、沈阳、哈尔滨多城的地铁达成合作，得到行业认可。



（四）商用/民用建筑

我们每天穿行在各种建筑中，不管是看得见的外立面、建筑色彩，还是看不见的防水保温；不管是地上的屋顶还是地下的车库，建筑的每一个部位，都离不开建筑建材人的匠心做工。东方雨虹心系做工，在多个领域推出具有竞争力的产品和服务。

研发推出了具有自主知识产权的种植顶板复合防水系统——雨虹桃花源防排蓄水系统，该系统能够有效解决种植顶板/屋面排水不畅、窜水、渗漏等痛点，适用于各类建筑大面积种植顶板、种植屋面等找坡困难的排水、渗水收集工程，在保证种植顶板防水层耐根穿刺的基础上，实现零坡度有组织定向排水功能，能够有效对建筑进行全方位防护，并可根据需求增加蓄水模块，将雨水资源收集、消纳和利用，助力城市像生态“海绵”般呼吸吐纳雨水。产品已北京、河北、山东、海南、甘肃等多个小区中成功运用。

案例：携手中海打造“城市桃花源”

在兰州中海寰宇天下云之镜项目中，中海地产在关注传统地下建筑种植顶板排水不畅、窜水、渗漏等痛点的同时，力求让雨水在小区中“净化”快人一步，“积存”收放自如，并以此提升人居环境，打造宜居生态的绿色园林景观。东方雨虹甄选雨虹桃花源防排蓄水系统，为项目打造分区域、免动力排水，在降低渗漏隐患同时，实现降碳减排、降本增效。



一座城市的建筑色彩是它跟世界对话的姿态，不同的色彩，则彰显不同的人文气质。德爱威传承德国DAW集团对建筑色彩研究的理念与成果，为客户定制建筑色材方案。大到城市规划，民用住宅，商业综合体，功能性建筑等，小到室内居家空间配色均可提供色材搭配效果图设计服务。为城市规划专家、设计院专家、专业设计师，施工专家等普及德爱威色材体系与欧洲色材趋势，让城市建筑呈现更多可能性。

案例：老建筑 · 新活力

位于莱茵河畔的艺术地标——杜塞尔多夫宫塔，因其在莱茵河上的暴露位置，这座拥有约700年历史的塔楼严重暴露在天气中，旧涂层部分严重受损。德爱威提供了定制化的涂装翻新解决方案。组团石固定剂保证了底面基层的耐候防水。塔楼被涂上了一层新的涂装——带有矿物立面颜色的组石溶胶硅酸盐，同时与非矿物的旧涂层兼容，呈现出明亮的外观色调，让这座历史悠久的塔楼再次拥有了全新的外观。



（五）水利设施

水是生命之源、生产之要、生态之基。兴水利、除水害，也是事关发展的大事。水利设施建设能够有效实现水利与经济的可持续发展，百年工程更是对各类材料要求近乎苛刻。东方雨虹旗下天鼎丰引进意大

利 FARE（法瑞）公司设计制造的高强粗旦聚丙烯长丝针刺土工布生产线，产品性能远远高于国标，成为国内唯一一家掌握聚丙烯长丝针刺土工布生产技术的企业，被水利部认定为“水利先进技术”并获得推广证书，并荣获国家制造业单项冠军企业荣誉称号。

案例：天鼎丰助力大别山革命老区引淮供水项目建设



2022年5月24日，位于河南省信阳市息县的大别山革命老区引淮供水灌溉工程成功实现破堰进水。引淮供水工程护坡采用了天鼎丰聚丙烯长丝针刺土工布。其单纤强度高，整体物理力学指标高；旦数粗，孔径大，垂直渗透系数能达到0.25cm/s，等效孔径能达到0.15mm，具有良好的透水性能与抗淤堵性能；耐化学性能好，能在PH 2-13范围内稳定使用，不会因水解而消失；具有良好的抗冻融性能，能在高原冻土地区长期稳定使用，在各项水利工程中得到了广泛的应用。

三、工匠篇：职业教育促进行业高质量发展

实现高质量发展、迈向制造强国需要一大批真才实学的工匠。2022年5月1日起施行的新修订的职业教育法更是着力提升职业教育认可度，深化产教融合、校企合作，完善职业教育保障制度和措施，更好推动职业教育高质量发展。

东方雨虹秉承长期主义，率先在行业内筹建东方雨虹职业技能培训学校（简称雨虹职校），打造知识型、创新型技能人才队伍，培养高素质技术技能人才，促进职业教育高质量发展。



雨虹职校是行业内首个拥有中华人民共和国民办学校许可证的职业技能培训学校、行业内首批唯一一个获得北京市社会培训评价组织资质的机构；可进行11大类、19个工种的职业技能等级认定及培训；现有北京顺义、云南昆明、江苏常州、江苏徐州、广东广州、湖北武汉、四川成都、宁夏银川、浙江杭州、福建泉州、浙江杭州11大直属校区；在河南、山东、陕西、安徽、湖南等地建有52个实训基地，专职老师中，全国技术能手占比70%。

11个

直属校区

52个

实训基地

12所

深度合作大专院校

88万

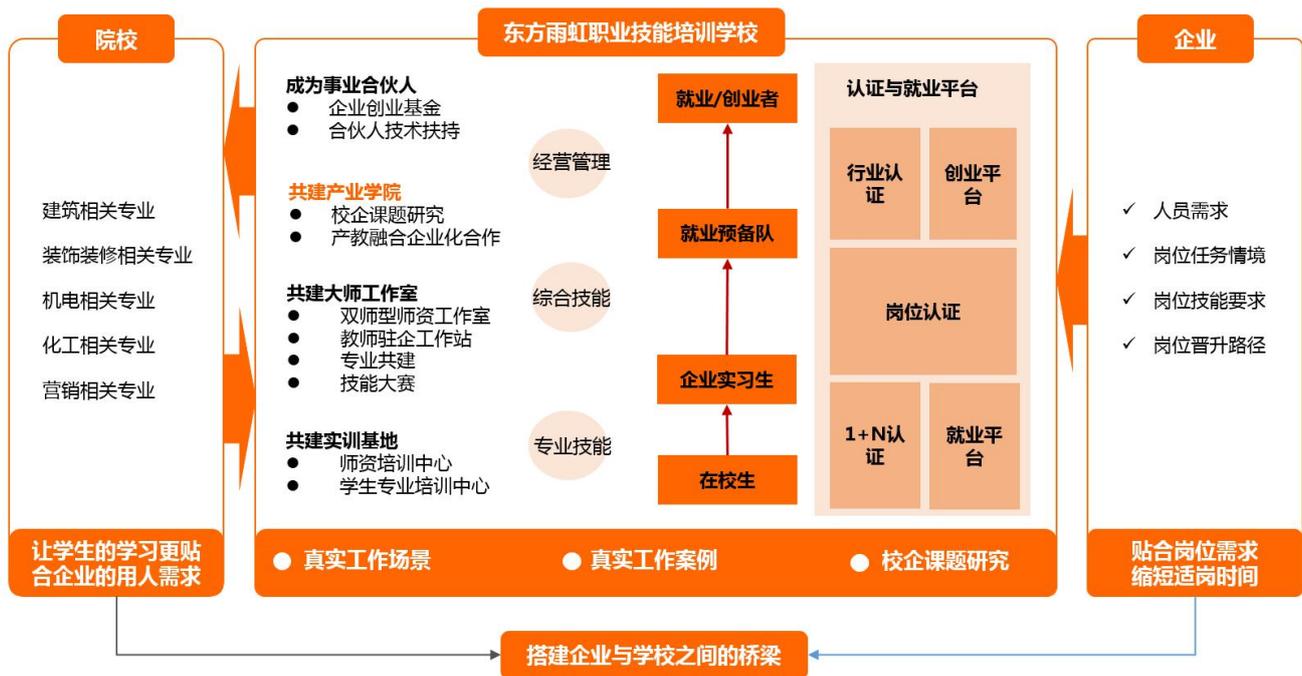
累计培训人数

建校十余年来，雨虹职校秉承“行胜于言，拙成务实”的人才培养理念，坚持“学中干，干中学”的教学方式，从职业道德、职业能力、职业品质等方面培养敬业、精益、专注、创新的现代技术工匠，累计培训人数达88万人次。

社会 认可	中国职业教育学会装备委员会副主任单位	全国建筑防水职业教育集团发起单位	世界青年屋面工冠军赛训练基地
	北京市首批企业新型学徒制试点院校	获得企业自主认定资质及社会培训评价组织资质	获评北京市技能大师工作室

与全国各职业技能类高校开展校企合作：至今已为深度合作大专类院校培养2名全国技术能手、5名全国建筑建材行业职业技能竞赛决赛选手；建成北京、徐州、常州、广州等12个大师工作室，一年时间里已培养工作室学徒近300名。

积极组织社会培训：目前已经获得北京、广州的社会培训评价资质；在北京、广州、杭州、河南、徐州、青岛等地均获得企业自主认定评价资质；近三年期间，累计完成15016人次职业技能等级认定工作。



已出版教材 7 本：其中《热塑性聚烯烃（TPO）防水卷材施工图解》为著作，《建筑防水施工实训》、《建筑防水设计与施工》、《防水工》、《瓷砖镶贴施工工艺图解》为主编；《建筑防水施工技术》、《中国建筑保温防火产品及应用技术》为参编；

推出“0 基础 30 天入门培训”“一年制学徒工班”：专门针对有意从事建筑建材、装饰装修相关工作的中专、技校、大专毕业生，旨在实现“实打实教手艺、百分百推荐就业”的目标；为培养储备新生代技术技能人才做提前规划和准备。

积极承办各类国家二类赛事、行业竞赛：更好在社会大众心目中树立当代大国工匠的形象和口碑，形成追求高质量发展，追求高品质生活和消费，尊重技术、尊重专业的意识，连续 10 年参加行业组织的防水工职业技能大赛，累计获得 26 个冠军、18 个亚军、12 个季军、85 位获奖人员；培养的技术技能人才在建筑防水、装饰装修等领域获得全国五一劳动奖章 1 人，全国技术能手 14 人，省级技术能手 2 人。

四、经营篇：品质构建稳健发展基石

2022年是充满挑战的一年：国际环境复杂多变、市场竞争更趋激烈、原材料价格波动、基建地产行业布局收紧等都为建筑建材行业发展带来压力。东方雨虹审时度势，灵活应变，恪守高质量稳健发展的战略定位，奉行长期主义、持续艰苦奋斗，将风险管控放在首要位置，坚持以客户为中心，在研发、生产、营销、渠道、服务等领域持续发力，为客户提供高品质、专业化、完备的系统解决方案，构筑一站式系统服务平台。

（一）品质经营

东方雨虹严格按照《中华人民共和国公司法》《中华人民共和国证券法》《上市公司治理准则》《深圳证券交易所股票上市规则》和中国证监会、深圳证券交易所相关法律法规的要求，不断健全公司治理机制、完善法人治理结构，强化内部和外部的管理和监督、积极践行可持续发展理念，持续规范运作，公司的治理结构符合中国证监会发布的有关上市公司治理的规范性文件，公司的经营管理均严格按照各项制度要求执行。

东方雨虹凭借品质经营、优质产品及服务获得社会认可，以下为2022年东方雨虹凭获得的部分荣誉称号：

1、行业认可例举

行业认可	荣誉称号
《福布斯》	福布斯 2022 全球企业 2000 强
胡润研究院	2022 胡润中国 500 强
全国工商联	2022 中国民营企业 500 强
《经济观察报》2022 美好生活高峰论坛	年度杰出服务企业
中国建筑材料联合会	2022 全球建筑材料上市公司综合实力排行榜 TOP100（第 34 位）
2022 中国企业家博鳌论坛	2022 新型实体企业 100 强（第 59 位）
北京企业联合会、北京市企业家协会	2022 北京企业 100 强榜单（第 32 位） 2022 北京制造业企业 100 强榜单（第 10 位）
中国品牌建设促进会、中国资产评估协会、新华社民族品牌工程办公室	连续五年上榜中国品牌价值评价信息

2、资本认可例举

东方雨虹

德爱威公司
东方雨虹控股
孚达公司
工程涂料集团
工建集团
虹嘉工业涂料公司
虹昇新能源公司
虹毅企业服务有限公司
建筑机器人公司
建筑修缮集团
控股事业部
民建集团
宁夏建筑设计研究院有限公司
砂粉科技集团
天鼎丰控股有限公司
投资控股公司
卧牛山节能保温集团
新材料集团
制造集团
中科建通公司
资产投资公司

资本认可	荣誉称号
新财富联合光华-罗特曼研究中心	第四届新财富“最佳上市公司”
证券时报	第13届中国上市公司投资者关系天马奖“中国上市公司最佳投资者关系奖”、“中国上市公司投资者关系最佳董事会奖”
证券时报	第十六届中国上市公司价值评选“主板上市公司价值100强”及“中国上市公司年度卓越管理团队”
德勤中国、新加坡银行、香港科技大学商学院、《哈佛商业评论》中文版	中国卓越管理公司

3、服务认可例举

服务认可	荣誉称号
2022 涂料行业高峰论坛&防水行业高峰论坛暨品牌盛会	工程防水影响力品牌、防水卷材影响力品牌、高分子防水卷材影响力品牌、聚氨酯防水材料创新解决方案 家装防水影响力品牌、防水涂料影响力品牌、瓷砖胶影响力品牌、美缝剂创新品牌、腻子粉影响力品牌 外墙涂料影响力品牌
2022 年房地产品牌价值测评	2022 房地产优选供应商技术创新力品牌 5 强
采筑	三星供应商（防水材料类）

（二）数字化转型

当前，新一轮科技革命与产业变革正加速推动数字技术与实体经济的深度融合。云计算、大数据、人工智能、工业互联网等前沿技术正在推动各类产业资源要素高效流动，“智能建造”“智能制造”已成为建筑业与制造业高质量发展的重要支撑。

东方雨虹坚持以工业化强基、信息化赋能。在智能制造、“5S 管理”与精益生产等现代化生产经营管理模式的助推下，积极推动高新技术在研发设计、生产制造、营销服务、经营管理等方面的深入应用，持续打造并不断完善集“自动化、数字化、精益化、集成化、智能化”为一体，涵盖科技研发、生产制造、设计建造、施工巡检、系统服务等维度的智能产业新生态。

公司通过数字化手段对业务流程和数据标准进行重构，打通传统组织的效能边界，使公司的内部经营管理数字化、线上化、透明化，延伸管理触角，前置风险管控，降低运营成本，提升运营质量。

- 建立了集团数据标准体系，对物料、客户、供应商、组织、财务等各类主数据的标准进行了统一，并且对上千万条数据进行了清洗。各个系统之间实现了“书同文、车同轨”，数据以资产的形式进行价值沉淀。
- 拉通了业务流程，大幅提升业务场景的线上覆盖率。核心业务流程涉及的主要业务场景线上覆盖率由之前的不到 50%提升到了近 90%。例如通过营销平台、SAP ERP、APS、WMS/TMS、MES 的深度集

成和 MRP 的全面推广，实现从销售计划、生产计划、备货计划、采购计划、发货计划端到端拉通，基于订单的全生命周期可视化管理，解决了以往各个环节流程断点带来的风险和效率瓶颈。

- 提升了业务操作的自动化程度。通过各个系统的上线，实现了 300 多项业务优化与提升点，降低人工处理的风险点，大幅提升管理效率。例如，财务记账自动化、自动开发票、自动认款、自动出具对账单等，自动分单率达到 90%，自动排产率达到 86%，人效提升 50%以上，安全库存的计算效率提升 87%。
- 提升了精细化管理水平，降低运营成本。通过 ERP 的重构与 MES 上线，生产制造的模式由之前的重复制造改为了离散制造，成本核算由月度核算变为按单核算，生产执行过程中的报产报工报消耗由人工转为线上。
- 逐步建立体系化的知识体系，将原有依赖于人脑经验转化为依据标准化的作业流程、模型和知识。

（三）创新研发

东方雨虹始终坚持技术是公司发展的引擎，着眼全球，不遗余力开发、引进核心技术，依靠“人才、资本、机制”协同作用，不断激发公司创新技术活力，进而推动行业的革新进步。

3 项

2 项

1 项

42 项

150 项

国家火炬计划项目

国家重点新产品技术

国家 863 计划项目

核心技术通过科技成果鉴定

自主创新产品

科研体系：公司依据技术创新战略，建立了集产品研发、生产工艺、应用技术、工程技术、检验检测、海外研发、战略储备为一体的科研体系，形成了覆盖“系统设计、材料研发、施工及技术服务”的系统研发“航母战斗群”。

科研平台：东方雨虹是国家技术创新示范企业及国家高新技术企业，获批建设特种功能防水材料国家重点实验室（行业唯一），拥有国家认定企业技术中心、博士后科研工作站、先进橡塑防水材料北京市工程实验室等研发平台，形成了产品研发、应用技术、生产工艺装备和工程施工技术四大研发中心，并在美国费城建立“东方雨虹防水涂料全球卓越研究中心”。



2022年8月，德爱威获得杭州市科学技术局认定“杭州市德爱威高性能环保涂料企业高新技术研究开发中心”；2022年10月，凭借出色的研发创新实力，德爱威获批设立浙江省博士后工作站，这些都是对德爱威技术创新能力及研发能力的肯定，将更加有利于德爱威高端研发人才的引进、加快科技成果转化成为生产力，为推动行业转型升级贡献力量。



科研人才：积极引进国内外优秀技术人才，建立首席科学家机制，打造国际化研发团队。目前有1位国务院津贴专家，7位工程院院士、25位技术带头人。

科研合作：积极与国内外科研院校及国内外知名供应商开展技术合作，发挥各自优势力量，助力创新研发成果产出。

与加拿大西蒙菲莎大学、中南大学、铁科院、山西道路交通研究院、斯坦福大学、群馬大学、九州大学、北京理工大学、北京化工大学在不同程度上开展合作。

与四川大学王琪院士团队、华南理工大学瞿金平院士团队、深圳大学陈湘生院士团队、中建集团肖绪文院士团队、中科院海洋所侯保荣院士团队开展技术合作。

与北京建筑大学、北京印刷学院、哈尔滨工业大学、长安大学、中北大学、北京工业大学、江苏大学、中南大学等8所院校开展水泥基材料、橡塑材料、沥青材料、聚氨酯材料、功能复合防水材料方向的开放课题合作项目。

行业基础研究课题：为满足行业健康发展，逐步解决行业面临的诸多共性技术问题，夯实行业科技发展基础，东方雨虹积极承担行业责任，开展行业基础研究课题的研究。2023年1月16日，东方雨虹承担的四项基础研究课题顺利通过验收，其中“高分子自粘胶膜防水卷材的耐久性研究”课题研究成果达到国际领先水平，“水性防水涂料长期耐水可靠性的评测研究”

“聚氨酯防水涂料耐久性评价研究”“丙烯酸盐灌浆材料耐久性研究”3项课题研究成果达到国内领先水平，对进一步推动建筑防水行业基础研究工作的深入开展、加快科技成果转化、提高技术人才培养具有积极的促进作用。

专利成果：截至2022年12月31日，全集团累计拥有有效专利1522件（其中发明425件，实用新型942件，外观设计155件），其中海外有效专利12件。



2022 科研创新成果例举

序	项目名称	获奖类型	奖项登记
1	高耐水聚合物水泥防水涂料关键技术及应用	中国建筑材料联合会·中国硅酸盐学会 建筑材料科学技术奖技术进步类	二等奖
2	绿色低碳多功能硅烷改性聚醚涂料关键技术及开发	中国好技术	B类项目库
3	绿色低碳多功能硅烷改性聚醚涂料关键技术及开发	建筑防水行业科技技术奖-技术进步奖	一等奖
4	绿色低碳硅烷改性聚醚粘结防水关键技术开发及工程应用	北京建材行业科学技术奖-科研成果类	一等奖
5	混凝土接缝用改性硅酮建筑密封胶开发与应用	北京建材行业科学技术奖-科研成果类	二等奖
6	单层屋面用自粘聚合物改性沥青隔汽膜	北京建材行业科学技术奖-技术革新类	二等奖
7	抗流挂单组分聚氨酯防水涂料	北京建材行业科学技术奖-技术革新类	二等奖
8	外露型单组分聚氨酯防水涂料	北京建材行业科学技术奖-技术革新类	三等奖
9	GES-W308 外露型水性聚氨酯防水涂料	北京建材行业科学技术奖-技术革新类	三等奖
10	建筑反射隔热涂料	北京建材行业科学技术奖-技术革新类	三等奖

推出行业首款生物基防水涂料产品——雨虹植本防水涂料，使用玉米、红薯等可再生植物资源，通过天然发酵单体合成乳液，根据实验室数据，每一桶雨虹植本防水涂料组分有 38%的生物基含量，获得了美国 USDA 生物基认证。

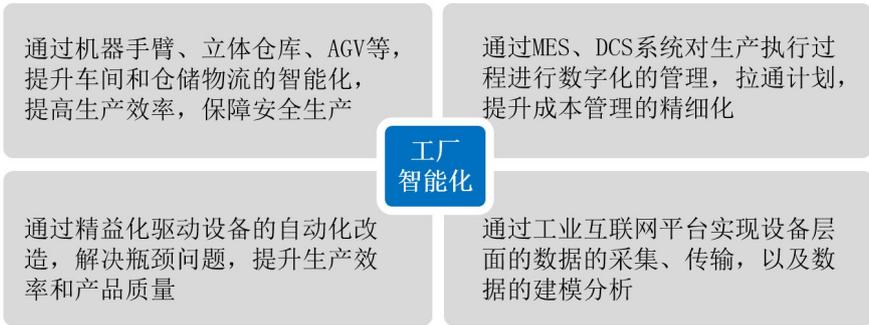
2022 年，Alpina 阿尔贝娜开发了符合德国新蓝天使认证的超高环保内墙产品——新尊典墙面漆。蓝天使认证是世界公认最为严格的环保认证之一。按照蓝天使认证的要求，通过对配方关键技术和生产工艺的研究和德国 FREI VON 环保检测标准，该产品不含防腐剂、溶剂、增塑剂和有害挥发物，进一步奠定了公司在超高环保涂料市场的地位。

2022 年 12 月，“压铺式节能保温防水集成屋面系统关键技术开发及应用”通过中国建筑材料联合会组织的专家鉴定，达到国内领先水平。该装配式屋面系统具有较高的防水、排水、保温和抗风压的能力，有较高的可靠性和耐久性，有较高施工和维修效率等特点。该系统能够促进行业屋面系统质量整体提升，推动防水行业对屋面系统装配化施工的研究进展，引领屋面系统向装配化和低碳发展。

（四）智能制造

东方雨虹已在全国布局 52+生产研发物流基地，在高效实现“300 公里辐射半径，24 小时使命必达”承诺的同时，以技术创新为驱动力不断突围，推进智能制造，实现生产、运营模式创新，为产品、服务质量护航。

通过智能装备应用和信息化建设，东方雨虹实现产品智能控制和品质监控，让生产制造的各个方面实现可视化、集成化、协同化，在提高产品品质、工作效率的同时，创造更大的社会价值。



智能生产线：建设超 200 条先进生产线，引进美国 R&D 改性沥青生产线、引进意大利 Boato 卷材生产线、德国 Krauss Maffei 生产设备，以精良设备和先进仪器架起严密的质量防线。

智能仓储：由 24 米高的两层钢筋混凝土建筑、立体库货架、巷道堆垛机、穿梭车系统、自动出入库输送系统、自动控制系统、信息识别系统、计算机监控系统、计算机管理系统以及其他辅助设备组建而成；通过机械手臂、昆船 TIMMS 系统、工业无人路器、模块化 PLC、人机界面、工业平板电脑、变频器、托盘输送设备等工业自动化产品与互联技术的协同工作；全智能化仓储系统通过计算机运行、调度、统计、分析、管理一体化，从生产线贴标签、扫码入库到成品出库，从车辆叫号到物流跟踪等全过程均实现自动化处理，仅需少量管理人员便可完成整个生产基地的仓储与发货工作。



智能监管：通过 MDM 主数据支持各相关 MES、WMS、LIMS 等进行数据传输，实现生产全过程的可追溯性，并利用系统工具进行质量数据分析，实现利用信息化和数字化手段进行提前预防和生产管控，打造产品全供应链管理协同系统，将工业化、信息化与工业物联；生产数据（时间、技术参数、操作人员等）全面采集，生产实时可视化与产品全生命周期管理；进行机站定位，随时随地查看订单运输情况等智能化系统；MES 系统与多系统高度集成，实现跨区域排产计算、生产过程执行管控、质量管理、设备管理等全模块覆盖。

案例：芜湖东方雨虹砂浆与涂料“黑灯车间”

“黑灯车间”是东方雨虹智能制造的实力缩影，通过配料自动化、高精度计量系统，确保配方的“完美”实现；TOM 包装机、德国进口哈沃旋转阀口包装机线，及其配套给袋装置、组合线自动完成包装操作；无人叉车，无人穿梭车等运输任务，无需人员参与，关灯状态也可保证生产。

（五）质量管控

东方雨虹始终将质量作为立足之本，成立产品质量监督管理中心，以“合法合规经营”为基本准则，以“过程管理”为核心，坚持“质量第一”，通过严格化管理和系统性约束，打通研发、采购、生产、检测、销售、施工全业务链条，将技术、产品、管理、服务各个层面串联并相互交融，打造“产品唯一身份全供应链管理协同系统”，在产品研发，原材料采购，生产过程控制，成品检测控制，销售及施工等环节实现质量系统五位一体，实施以二维码为介质的产品唯一身份全生命周期可追溯管理系统。

东方雨虹设置了严格的质量控制流程，一方面从新产品研发到产品量产各阶段均进行评审和控制，在生产过程从原材料进厂到成品出厂经五级检验，层层把关，确保出厂产品合格。另一方面，采取第三方监督管理模式，对各工厂的产品质量进行垂直化管理，每年不定期对产品进行飞检，站在客户角度寻找问题并组织解决提升。



质量，就是价值与尊严的起点。东方雨虹坚持把追求品质卓越作为一切工作的起点，不断推动企业在技术领域的核心竞争力，严格把控质量，更好地适应经济全球化的发展趋势，服务客户，以质量和品质回报社会。

（六）全新全意服务客户

消费者权益保护

建筑建材行业大多属于隐蔽性工程，消费者难辨真伪，很多不法商家“钻空子”，导致假冒伪劣、非标产品较为明显。为了捍卫消费者权益，东方雨虹成立“品牌维权部”，设立举报电话、微信号，为消费者提供电话查询和官网在线等防伪查询途径。同时对所获取信息进行分析并有针对性地安排人员进行取证，通过摸排线索并对掌握的证据核实后，协助执法单位进行针对性打击，保护消费者的合法权益。

东方雨虹对于涉假案件达到立案标准的必须要追究刑事责任，不接受任何形式的赔偿和谅解情形，最大化追究犯罪嫌疑人的刑事责任。2022年品牌维权部查处涉假、偷盗材料等违法行为刑事案件53起，共计抓获犯罪嫌疑人110人，其中23人已被判刑（14人实刑、9人缓刑），捣毁制假窝点34个，扣押造假设备44台，制假模具11套，直接挽回经济损失3亿多元。

全员打假，共同参与。公司要求所有人员发现涉假、扰乱市场秩序、破坏公司品牌的事件要积极举报。市场流通领域发现侵权案件，以举报到当地市场监督管理局，进行行政查处为主；案值较大、达到刑事立案标准的，直接举报到公安经侦部门。通过执法部门协助，追根溯源，净化市场环境，让广大用户和消费者放心。

案例：民建电商平台打假

2022年，在民建电商平台，针对美缝剂售假商铺及线下制假窝点全国收网，分别在华南（湖南长沙）、华东（浙江金华）、北方（河北保定）打掉了三个最大的制假、售假团伙，共计查扣非法制、售的商标标识近2000万个，生产加工的假冒美缝剂1000多万支，抓获犯罪嫌疑人70人，捣毁制假窝点20个，涉案价值近3亿，其中一名主犯已经判处有期徒刑，有效维护了东方雨虹品牌的市场销售秩序。

更好的服务体验

新消费时代，消费者需求进一步升级，东方雨虹时刻践行“以客户为中心”服务理念，通过技术创新和数据赋能，产品和服务双管并行，打通线上线下壁垒，创造消费新场景，全力为用户提供更好的消费体验。

产品全	响应快	服务真
围绕行业发展趋势及用户真实需求，不断上新产品。2022年相继推出PSD-520预铺防水卷材、美丽城镇超易涂彩色防水防潮浆料、植本防水涂料、新尊典墙面漆、520爱+系列、360净味系列、童年小象儿童漆等200+款新品，并以此不断优化产品结构，满足用户多元消费需求	依托全国范围内52+生产研发物流基地、实现“300公里辐射半径，24小时使命必达”；持续发力C端，线下渠道下沉广泛覆盖，拓展经销商与经营网点；线上开拓互联网新业态、新零售；雨虹到家服务打造“十五分钟服务生态”。	倾听客户声音，全年累计为客户提供咨询服务约22万次；客户咨询接待6*12小时受理；客诉全时在线7*24小时受理；客户满意度93.3分，与去年持平；忠诚度94.2分，同比去年有所提升；抱怨率为8.2%，同比2021年有所降低。

案例：东方雨虹与京东签署战略合作协议

2022年7月，东方雨虹与京东签署战略合作协议，将充分发挥京东集团在物流仓配、家居家装、线上线下全渠道、供应链体系等领域以及东方雨虹在建筑建材、建筑修缮及到家服务等领域的积累和优势，共同建设家装建材、建筑修缮行业“线上+线下”全渠道、“商品+供应链+履约服务”一体化的生态圈。



案例：“618”获佳绩 多项稳居NO.1

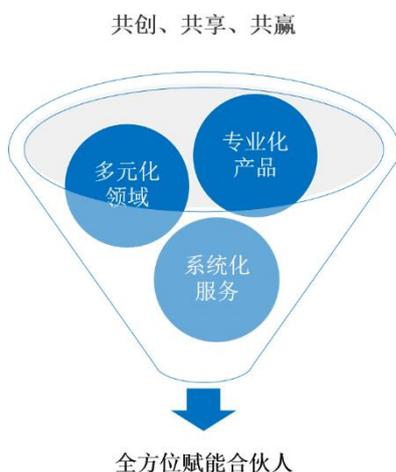
2022年“618”期间，东方雨虹在各大电商平台防水及其它类目中，斩获销量第一的佳绩。其中，京东、天猫、拼多多等平台累计销售防水涂料100000+桶，美缝剂销售380000+支；Alpina全时段投资回报率ROI增长40%、Caparol零售新品小滚筒大促期间销售增长300%，Alpina+Caparol店铺访客人数同比增长1000%，客服总共接待量达130000+人。

（七）与合伙人共创、共享、共赢

东方雨虹自成立之初始终以长期主义为价值锚点，持续深化建筑建材系统服务商价值。在“共创、共享、共赢”理念推动下，以“平台+创客”经营管理模式为基点，全力打造建筑建材各细分领域的“全项冠军”“隐形冠军”，并以此为社会与行业可持续发展提供有力支撑。

东方雨虹的成长离不开同心同人与合作伙伴。长久以来，坚持以“力与执行力，以多元化领域、专业化产各项支持举措，全方位赋能事业伙伴更具活力、更有价值，给予有想法、斗实现自我价值的平台，并提供资源

始终坚持与广大合作伙伴“肝胆利益共同”，在“以奋斗者为本”的合伙人加入到东方雨虹大家庭之中。



向、共进共荣的万千事业合伙出一孔、利出一孔”的凝聚良品、系统化服务为支撑，通过人，实现聚合效应，让共创共有创新的员工、经销商通过奋力助力创客发展，实现共享共赢。

相照、荣辱与共、互为依存、善意激励下，越来越多优秀的

案例：民用建材稳增长、重质量，持续渠道深耕

民用建材集团重点关注空白市场，加大全国城市覆盖率，由市区、县城逐步向乡镇下沉，同时完成经销商细分领域拆分，扶持专业客户做大做强；持续增拓销售网点的同时，注重渠道经营质量，通过网点分级、强化拜访等举措，稳固传统强势渠道，保障渠道持续健康快速发展。强化渠道信息化管理，利用信息化平台实现业务人员销售网络的线上管理，打造实时高效+便捷检核的业务工作模式。



（八）世界的东方雨虹

东方雨虹在海外市场已深耕多年，自 2005 年出海至今，已有近 20 年的深厚积淀。旗下多款产品获得德国 EC1PLUS 认证、法国 A+ 认证、欧盟 CE 认证、俄罗斯 GOST 认证、美国 CRRC 认证等国际权威认证；HDPE 产品相继获得澳大利亚、美国、新加坡、欧洲专利局等颁发的发明专利证书；得到《Yahoo! Finance》《Bloomberg 彭博社官网》《Wall Street Journal 华尔街日报》《Barron's 巴伦周刊》《AP NEWS [The Associated Press] 美联社》等多家海外媒体关注报道，在国际市场上的声誉度和美誉度持续提升。

近两年，随着全球竞争格局的重塑，东方雨虹加速“出海”，不断升级“本地化”策略，打造专业化、本土化的产品和服务，尤其是在亚洲、非洲等“一带一路”国家和地区深耕，不断提升品牌效应，开展海外的产品认证、专利授权。

135 家

1000 余家

136 个

海外市场一级代理

二级代理

足迹遍及国家和地区

截止 2022 年底

东方雨虹先后在马来西亚、加拿大等地成立分公司或办事处，参与建设的重点合作项目包括几内亚马瑞巴亚港至西芒杜矿区铁路、肯尼亚蒙内铁路、委内瑞拉铁路、尼日利亚拉各斯轻轨、斯里兰卡铁路、伊拉克萨拉赫丁电站、印尼白水水电站、马尔代夫中马友谊大桥、埃塞俄比亚铁路等，以高质量的中国建材产品与服务，为“一带一路”沿线国家和地区设施连通作出贡献。

案例：东方雨虹入选“2022 ‘一带一路’绿色供应链案例”

2023 年 1 月 10 日，中华环保联合会主办“‘一带一路’经济与环境合作论坛暨‘一带一路’生态产业合作工作委员会成立大会”，旨在进一步提升生态环保国际合作水平，统筹推进“一带一路”绿色发展重点领域合作，讲好共建“一带一路”绿色发展“中国故事”。东方雨虹成功入选“2022 ‘一带一路’绿色供应链案例”。



东方雨虹坚持项目与渠道并驱，已逐渐形成一套独有的海外业务体系，从工程项目立项到落成，提供一体化服务，将产品性能与规格进行匹配，不同国家标准与中国标准相结合，充分满足项目的规格要求。

- 方案初期：地势/气候/环境多方面考虑匹配适用的解决方案
- 运输环节：全程参与服务，使货物安稳抵达海外
- 项目施工：根据当地的现场情况提供现场技术支持

东方雨虹已从一个制造商、材料供应商逐渐转变为一个集材料与服务为一体的一站式服务商，协助总包呈现出了许多优秀的作品。以下为 2022 年东方雨虹承接的部分国际项目：



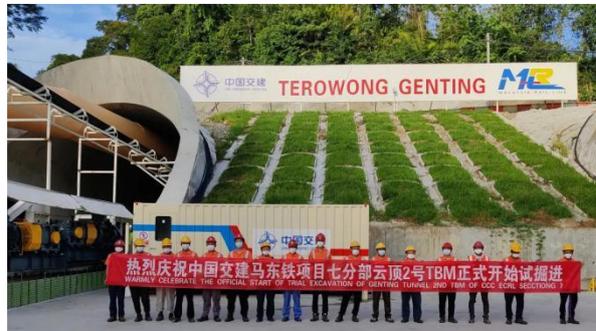
科特迪瓦科科迪大桥项目

科特迪瓦科科迪桥是西非地区最大斜拉桥。是科特迪瓦政府致力打造的科科迪湾区商务中心的地标之一。项目应用产品：道桥防水卷材。



马来西亚东部沿海铁路项目

马来西亚东海岸经济区规划中的重要交通基础设施项目，建成后将构建马来半岛东西方向铁路运输干线。项目应用产品：防水涂料、土工布等



越南北疆光州富康厂房项目

越南光州工业园区是按照现代化建筑综合体的模式进行规划、投资、开发的，包括：工业区，城市区，公用服务区。项目应用产品：SBS 改性沥青防水涂料

几内亚马瑞巴亚港至西芒杜矿区铁路

贯穿几内亚东西走向的第一条铁路，线路全长约 553 公里，桥梁长 69.9km/169 座，隧道长 27.6km/4 座。应用产品：防水卷材、防水涂料、无纺布、止水带。

优秀的施工和工程质量也得了海外市场认可，以下为 2022 年东方雨虹在海外场所获得的部分荣誉：

海外 认可	马来西亚雪兰莪州王室清真寺项目	东方雨虹 TPO 维修专用卷材，由马来西亚工程部政府批文，进入马来清真寺维修材料名录
	援布基纳法索医院、中国驻非盟使团新建馆舍工程、援喀麦隆国民议会大楼项目等项目	荣获中资方中国城建国际工程 2021 年度《核心供应商》
	中国国际工程咨询协会中国国际工程采购联盟颁发经审核办法联盟成员单位物资设备/服务招标采购中	优先选用备案单位



五、环境篇：绿色为本

东方雨虹坚持建设资源节约型和环境友好型企业，架构设计上坚持绿色管理，供应链坚持高标准绿色要求，生产现场秉承洁净绿色理念，施工现场通过标准化、智能化作业打造绿色服务，各类绿色科技成果助力打造绿色建筑，用实际行动助力“2030 碳达峰、2060 碳中和”的气候行动目标。



公司以生产运营中心为核心推动力，推动绿色工厂认证工作，建立和完善安全环保、节能减排、社会责任等管理目标和考核机制。以工信部绿色工厂标准、三体系认证等为依据，积极推动各生产研发物流基地的安全、环保、职业健康、能源管理等工作的开展。推进国家环境绩效分级为自我提升契机，国家重点环境区域的工厂全部达到环境绩效 A 级标准，新建工厂环保设施投入全部按 A 级标准实施。

东方雨虹建立健全环境管理体系、开展环保宣传教育，推动供应链环境责任，继续以“绿色生产、低碳环保”为管理方向，推进环境管理的日常化、系统化和标准化，使环境管理绩效进一步量化，具体评价环境影响。

（一）架构设计

公司建立了由集团、中心、工厂/子公司等构成的规范化环保体系，管理实行属地管理原则，三级管理，各级组织实行一把手负责制。一级管理部门由公司集团管理，分管总裁负责；二级管理部门由制造集团总裁负责；生产运营中心负责安全环境管理、建设开发和工艺装备中心负责节能降耗管理；三级管理部门由各工厂/各分子公司总经理负责；安环管理部负责安全环保管理；设备能耗部负责节能降耗工作；生产部门负责节能降耗和安全环保工作的落地实施。



东方雨虹建立健全 GB/T 24001-2016 环境管理体系，制定相应计划、执行、检查、改进等环境管理制度。开展环保宣传教育，推动供应链环境责任，继续以“绿色生产、低碳环保”为管理方向，推进环境管理的日常化、系统化和标准化，使环境管理绩效进一步量化，具体评价环境影响。

公司不断加大对绿色环保工作的投入和审查力度，确保所有工厂的新改扩建项目环境保护验收 100%通过，环境污染治理设施 100%达标排放。深入探索绿色管理模式，完善节能工作组织管理体系，有效夯实节能减排管理基础，将绿色环保低碳理念贯穿于研发、生产、应用的全过程。

5	16	14	6
工信部 绿色工厂	三体系认证 质量/环境/职业健康安全	能源体系认证	环境绩效分级评定 A 级

东方雨虹生产研发物流基地相关认证/评定数据

（二）建设绿色供应链

东方雨虹从公司发展、采购管理模式、供应商绩效、战略供应商建设等方面，建立高效供应链，联合开发推动行业技术不断更新，通过供应链多维度不断改进，赢得同业及客户的尊重，成为具有共同价值观的合作伙伴。将环保原则纳入供应商管理机制中，从原材料开采源头、生产过程、消费终端等环节入手，制定可执行的绿色采购标准和包含检测、认证、落地环节的绿色采购管理方案。以减少直接或间接对环境的负面影响，提升资源效率，为终端消费者提供绿色健康环保的产品。

阳光采购、集中采购是东方雨虹的主要采购模式，坚持以全球化、信息化、低碳环保为理念，携手上游客户，共同促进行业发展。公司采用供应商准入认证体系，对供应商选择和管理，以进料检验过程、采购管理过程、仓库管理过程、生产管理过程、出场检验过程、质量管理过程、技术工艺管理过程作为供应商现场认证的主标准，以确保产品供应质量。对关键物料引入供应商质量飞检，从技术研发、制程控制、仓储物流方面把控质量，注重供应商管理和绩效考核，以结果为导向切实提高供应链竞争力。

东方雨虹坚持建设绿色供应链，在原材料采购过程中，优先使用生产过程低碳环保的产品，对于日常办公等消费品，尽量选择便于回收利用的产品，通过绿色采购减轻产业链环境负荷。



公司在国标的基础上提出了更高要求的采购分级标准和管理流程，同时要求原材料供应商提供合规产品及第三方检测相结合的产品保障方式，并要求原材料供应商提供国际通行的化学品安全质量说明书，从源头上进行防范。

东方雨虹本着平等、合作、共赢的理念与合作伙伴开展深度合作，维护稳固且高效的供应链，不断将社会责任理念推广到供应商伙伴中，积极拓展公司、合作伙伴、行业的发展空间，共同应对各类环境和社会的挑战。以品牌责任为理念，为客户提供全流程、多维度、深沟通的优质服务。

2022年，东方雨虹与万华化学、中石化、巴斯夫、埃克森美孚、利安德巴塞尔等国内外知名企业开展技术合作，通过技术、市场、产品及施工工艺等多维度的密切合作，打造高品质产品和系统解决方案，不断进行技术创新，推动行业朝可持续发展方向前进。

（三）绿色生产-安全

安全是公司运营的基本保障，安全面前无小事。东方雨虹遵循“安全第一，预防为主”的工作方针，层层落实安全责任制，避免和杜绝一切安全事故。树立全员参与的安全管理思想，健全安全管理体系，建立安全制度，组织开展安全教育和培训，提高安全意识和危机处理技能，确保公司稳定生产和正常运营。

1、安全管理体系

东方雨虹根据国家相关安全监督管理法律和规定的要求，加强安全制度建设，将《安全生产责任制度》《安全教育管理制度》《安全检查管理制度》《安全生产奖惩制度》《危险化学品安全管理制度》等安全管理制度进行了修订和完善，并将安全责任进行了细化。

东方雨虹生产研发物流基地安全管理制度

安全生产责任制	动火作业管理制度	安全隐患排查制度
安全教育管理制度	职业卫生管理制度	廉洁自律管理办法
安全生产检查制度	工伤事故报告处理管理制度	东方雨虹工厂出入管理制度
安全生产奖惩制度	消防安全管理制度	工厂安全联动管理制度
劳动保护用品管理制度	安全用电管理制度	有限作业空间管理办法
危险化学品安全管理制度	火灾事故应急管理制度	生产运营中心安全处罚管理规定
设备安全管理制度	化学品泄漏应急处理管理制度	生产运营中心工伤事故处理管理办法
特种作业安全管理制度	外来施工作业安全管理制度	生产运营中心员工安全信用积分考核管理规定
高处作业安全管理制度	培训、实习人员安全管理制度	员工交通安全管理制度
禁烟管理制度	叉车安全管理制度	安全帽佩戴规定
厂内货物运输安全管理制度	变更管理制度	静电及防爆安全管理制度

2、安全生产现场

落实安全生产责任制，建立各部门、各级人员的“横向到边，纵向到底”的安全生产责任体系，层层落实安全生产责任，形成了全员责任、全员参与的安管理理体制，全面实行安全生产标准化及 HES 安全管理体系。

在各大生产研发物流基地设立了专门的安全管理部门，配备了专职安全管理人员，成立了安全联动管理小组，以各生产基地安环主任为组员，生产运营总监为总督导，整体统筹生产运营系统中各生产研发物流基地的安全管理工作，建立联动互助的长效机制，做到统一部署，安全信息资源共享，群策群力，相互借鉴学习，共同进步，确保生产运营系统整体安全生产目标的达成。

东方雨虹主要生产基地安全生产投入明细

序号	类别	项目	金额（万元）
1	设备设施升级 改造、维护和 检测	消防设施的采购、维护、维修和检测	996.7674
2		防雷防静电维护、维修和检测	38.7725
3		特种设备相关维护维修和检测检验支出	214.616
4		安全标识标牌、安全警示、宣传等支出	62.56131
5		机械设备安全防护升级改造和维护费用	105.139
6		高处作业防坠落设施升级改造和维护费用	68.96
7		吊装作业安全设施升级改造和维护费用	22.42
8		易燃易爆场所安全设施升级改造和维护费用	9.77
9		其他安全设备设施完善、改造和维护的支出	220.88
10	应急救援	配备、维护、保养应急救援器材、设备支出和应急演练支出	39.05
11	隐患整改	开展重大危险源和事故隐患评估、监控和整改支出	135.25
12	评价和咨询	安全生产检查、评价、咨询和标准化建设支出	201.75
13	职业病防治	配备和更新现场作业人员安全防护用品支出；	414.55949
14		职业病体检和职业病危害因素检测相关费用	82.3888
15	培训教育	安全生产宣传、教育、培训支出	29.27
16	四新	安全生产适用的新技术、新标准、新工艺、新装备的推广应用支出	394.7
17	安全文化	提升企业全员参与安全文化和安全奖励的支出	272.623
18	其他	其他与安全生产直接相关的支出	203.979
合计			3513.4565

3、产品安全

为保证产品安全，东方雨虹采取以下措施严控产品质量，确保产品安全。

1) 本着精益求精的态度，已通过质量管理体系、环境管理体系、职业健康安全管理体系、测量管理体系、CE、CTC、CRCC、中国环境标志产品认证等，加强管理体系效果并持续改进，产品符合国家法律法规和国际规则规定的安全标准，消除产品可能对消费者和社会产生的安全隐患；

2) 液态沥青、乳液等原材料均采用封闭式罐装储存、封闭式管道输送，达到与空气隔绝的效果。在产品制备过程中，安全防护措施落实到位，消除产品可能对车间员工的安全隐患；

3) 产品的包装符合安全标准，密闭无溢漏隐患，产品上张贴安全技术说明书，关于产品如何安全储备、安全运输、安全使用、安全注意事项、应急处理措施等向消费者明确告知；

4) 法律定义的危险品，其生产、储存、运输、销售、使用，按法律规定的安全防范措施执行，以保证企业、员工、公众、社会的安全；

5) 通过看板拉动系统，管理产品质量安全，使用二维码进行出入库管理，实现物资先进先出，提高物资周转效率，全程实现产品质量追溯；

6) 公司建立产品追溯体系，该体系赋予每个产品一个身份编码，能够全方位追溯到产品生命周期内的进程，通过扫描产品的身份编码查询到每一个具体产品的生产车间、生产班组、产品配方工艺的研发负责人、产品包装、产品使用周期等，对每一个产品的周期进程进行监控，还在一定程度上防止了假冒伪劣产品在施工上的应用。

4、社会安全

企业作为重要的社会有机体，在经济活动、社会活动中，必须围绕社会安全进行企业的正常运营，以下是东方雨虹为确保社会安全实施的相关措施：

1) 公司上下严格宣贯《东方雨虹基本法》，明文规定公司遵守商业规范和道德准则，遵守一切法律、法规，尊重社会习俗和宗教信仰；

2) 公司明确在职人员对社会及社区的安全建设应负的责任，严禁从事危害公共安全的任何行为；

3) 加强对在职人员的公共安全教育，禁止从事非法娱乐、集会等活动，上下班遵守交通安全法规，保证路途中行车安全，避免对公众造成不良影响；

4) 加大对厂区环境保护的投资，投入大量人力、物力进行污染物治理，严格控制污染物排放，消除对周边社区的环境影响；

5) 作为企业公民，东方雨虹不断强化社会安全措施。举办安全消防演习互动活动，对员工进行消防应急、救护演练，向员工发放急救手册，宣传应急救援知识，营建“人人关注消防、人人参与消防”的安全氛围；

6) 公司组织反恐安全知识讲座和交通安全讲座活动，提高全员反恐及交通安全意识。

（四）绿色生产-环保

1、环保政策和行业标准

东方雨虹所有污染物的排放均严格执行以下标准，地方标准高于国家标准的，执行地方标准。所有工厂依据 2020 年 2 月 8 日生态环境部发布和实施的《排污许可证申请与核发技术规范 总则》（HJ942-2018）指引标准和要求，公司在基本生产设施、产品产量、产污环节、治理设施、主要污染物排放许可量、自行监测、环境管理台账记录等各方面进行严格自查审核，并全部取得国版排污许可证。

废气排放	卷材车间有组织废气执行《大气污染物综合排放标准》（GB16297-1996）（非甲烷总烃排放浓度不超过 120mg/m ³ ，苯并芘排放浓度不超过 0.3mg/m ³ ，沥青烟排放浓度不超过 40mg/m ³ ，颗粒物排放浓度不超过 120mg/m ³ ）
	砂浆车间有组织废气执行水泥工业大气污染物排放标准（GB4915-2013）标准限值（颗粒物排放浓度不超过 10mg/m ³ ）
	厂界无组织非甲烷总烃及颗粒物执行《大气污染物综合排放标准》（GB16297--1996）标准（颗粒物不超过 1.0mg/m ³ 、非甲烷总烃不超过 4.0mg/m ³ ）
	燃气锅炉有组织废气执行《锅炉大气污染物排放标准》（GB13271-2014）大气污染物特别排放限值（氮氧化物不超过 150mg/m ³ ，二氧化硫不超过 50mg/m ³ ，颗粒物不超过 20mg/m ³ ）
污水排放	《污水综合排放标准（GB8978-1996）》，执行标准不低于三级排放标准：PH:6--9、BOD 不超过 300mg/L、COD 不超过 500mg/L、氨氮不超过 45 mg/L、悬浮物不超过 400 mg/L
噪声排放	《工业企业厂界环境噪声排放标准》（GB12348--2008）3 类标准（昼间不超过 65 分贝、夜间不超过 55 分贝）
固体废弃物	一般固废执行《一般工业固体废物贮存、处置场污染物控制标准》（GB18599-2001）
	危险固废暂存执行《危险废物贮存污染控制标准》（GB18597-2001）
食堂油烟	执行《饮食业油烟排放标准（试行）》（GB18483-2001）中标准限值（油烟不超过 2.0mg/m ³ ）

2、环保投入

东方雨虹按照“谁生产，谁处理”的原则，组织开展环境考评，加强环保投入，统一生产现场管理，加强对污染物和废弃物的控制和处理，减少对社区和周边生态环境的影响。2022 年度，环境保护主要投入超 7354.16 万，同比增长 17.74%。



东方雨虹环境保护主要投入明细

序号	类别	项目	金额（万元）
1	评价、咨询和检测	环境保护相关的评价、咨询和检测费用	271.0918
2	固体废弃物	用于一般固废、危废的贮存、转移和处置的费用支出	657.2811
3	大气	颗粒物治理（涂料粉料、砂浆、石膏腻子粉等产线的废气治理）	320.78
4		VOC治理（涂料、高分子等治理设施）	448.3
5		沥青烟气处理（沥青相关产线的环保设施的投入）	2067.9
6		锅炉废气治理	40.05
7		其他环保设施投入	164.74
8	水	生活、生产污水处理	1166.795333
9	噪声	降噪处理设备	14.5
10	节能减排改造费用	节能减排、降耗、光伏相关项目费用（万元）	1459.6
11	其他	植被绿化	317.554
12		事故应急	24.1
13		危废资源化、减量化技术工程措施的投入	14.9
14		消除减少大气、废水污染物排放的技术和工程措施投入	279.2
15		其他环境保护相关投入	107.37
合计			7354.162333

3、节约能源

东方雨虹各大生产研发物流基地持续推行 5S 管理和精益生产，通过对生产现场的整理、整顿，使生产环境整洁有序、生产过程安全高效。同时，公司还强化三体系等管理，做到管理规范化、科学化，提高体系运作效率。

案例：导热油炉节能改造方案

生产线中的用热工序通过采用热力节能措施，提高热能利用率从而降低能耗。导热油加温沥青融化装置，是把原有的沥青融化器外壁加装导热油加热盘管，内装三层加温盘管，通过导热油进行沥青加温融化，年节约燃气量 188tce。

东方雨虹其他主要能耗和排放指标

序号	能耗	单位	2022 年度使用量
1	外购电	kW·h	413608297.6
2	光伏发电量	kW·h	9275560
3	天然气	m ³	60657409
4	液化天然气	kg	771.435
5	液化石油气	kg	3885
6	柴油	kg	497677.86

7	外购供热蒸汽	kg	19672410.56
8	新水（自来水）	t	1333710.87
9	乙炔	m ³	4526.7
10	煤炭	t	42937.47

东方雨虹碳排放数据（范围一、范围二）

单位 tco ₂ e	范围一	62048.85391	东方雨虹拥有或控制的温室气体排放源所产生的直接排放
	范围二	243692.0388	外购电力/热力所产生的间接温室气体排放

4、减少排放

公司积极推进各生产研发物流基地利用蓄热式焚烧炉（RTO）等先进污染物治理工艺和先进治理设施，对沥青防水卷材、沥青涂料等废气进行处理，与传统静电除尘和碱洗工艺相比，在颗粒物排放、非甲烷总烃排放、恶臭排放等下降 50%以上，VOCs 排放处理效率最高达 95%；同时进行空压机节能改造，进一步提高工厂空压机能效等级。减少“电老虎”能耗，淘汰老旧空压机，依据合肥机电研究所标准，实测新型节能空压机比功率，节能效果达到约 20%以上。

序号	类型	单位	2022 年度
1	COD 排放	t	20.6
2	VOCs 排放	t	37.8303
3	污水排放量	m ³	294867.34
4	一般固废产生量	t	18296.482
5	危废产生量	t	2008.7574

5、清洁能源

东方雨虹积极推广清洁能源运用，加大布局生产研发物流基地分布式光伏发电、储电项目。推行工厂屋顶光伏电站项目，一期工程包含全国 16 个东方雨虹生产研发物流基地，总装机容量近 48.6 兆瓦。其中 2022 年度累计发电 927.556 万度电，相当于减少燃烧标准煤约 1204.9 吨、减少近 5416 吨二氧化碳排放。

【数据参考《GB/T2589-2020 综合能耗计算通则》，系数 0.1299kgce/kW·h；《企业温室气体排放核算方法与报告指南发电设施（2021 年修订版）》，为简化计算，取全国平均值，系数 0.5839tCO₂/MWh】

二期工程已于 2022 年 2 月正式启动，将覆盖 12 个东方雨虹生产研发物流基地，预计建设安装总装机容量约 45 兆瓦。未来东方雨虹将积极推动光伏发电、导热油低温运行、太阳能加热、锅炉/空压机余热回用等节能项目。

案例：东方雨虹&德爱威杭州生产研发物流基地屋顶光伏电站

8月12日，以“可持续·碳未来”为主题的东方雨虹 E-FACTORY 体验之旅在“全球绿色城市”“国家园林城市”建德拉开帷幕，与会嘉宾共同见证了东方雨虹&德爱威杭州生产研发物流基地屋顶光伏电站落成仪式。其中两个工厂的光伏电站，总装机容量约6兆瓦，预计每年将带来594万千瓦时的清洁能源。



6、消耗二氧化碳

孚达公司与环境保护部环境对外合作中心签署了《挤出聚苯乙烯泡沫行业 HCFC 淘汰项目合同书》，已完成 CO2 发泡替代 HCFC 发泡的整体技术改造，提高了产品环保性，通过环保部验收，并于 2017 年获得联合国“为保护臭氧做出宝贵贡献和努力”的荣誉证书。孚达公司采用 CO2 作为发泡剂原料生产高性能环保型 XPS 板，2022 年直接消耗 CO2 约 371.81 吨，预计每年将以 35%-45%速度实现快速增长。孚达环保型发泡剂和阻燃剂技术体系具有非常大的温室气体减排环境效益，属于双碳目标的一种可行技术选择。

（五）绿色智能服务

智能建造是提升产业发展质量、实现由劳动密集型生产方式向技术密集型生产方式转变的必经之路。深入推进智能建造与建筑工业化协同发展，培育建造技术科技化、信息化、智能化水平，是东方雨虹推动高质量发展必由之路。

东方雨虹将智能建造创新技术作为企业重点拓展方向，发挥平台优势、整合科创资源，持续推动产业智能化升级走深走实。早在 2018 年布局智能装备领域，并以“标准化施工、智能化设备、专业化服务”为导向，全面塑造高质量发展新优势。截至目前，在智能装备相关领域内，已累计获得有效专利 130 余项(其中，发明专利 32 项)推出坦途 JCJR-100、骑行者 JCJR-10、虹象 895、虹旋风等 20 余款智能装备，服务覆盖全国 10 余省份，并在多项大型工程项目中得到良好应用。



案例：高分子自粘胶膜防水卷材专用抗穿刺试验机

案例：“虹探”可视化系统

将实验室引入项目现场、带到客户身边，使客户能够更直观、更生动地了解该检测项目。试验机具有四大特点：试验机程序与国标要求测试方法完全一致，且经权威检测机构华测校准，确保准确；从试件裁剪到测试结果打印，5分钟速度很快；体积小，重量轻，可随时随地，便捷测试；全自动模式，智能触屏设计。



通过 AI 人工智能识别，工程管理能够实现施工现场实况的全面检查，24 小时实时监督，进一步规范项目安全行为，确保“重安全、全覆盖、零遗漏、严执行、保质量”。



六、社会篇：勇担责任、和谐向上

（一）与员工同前行

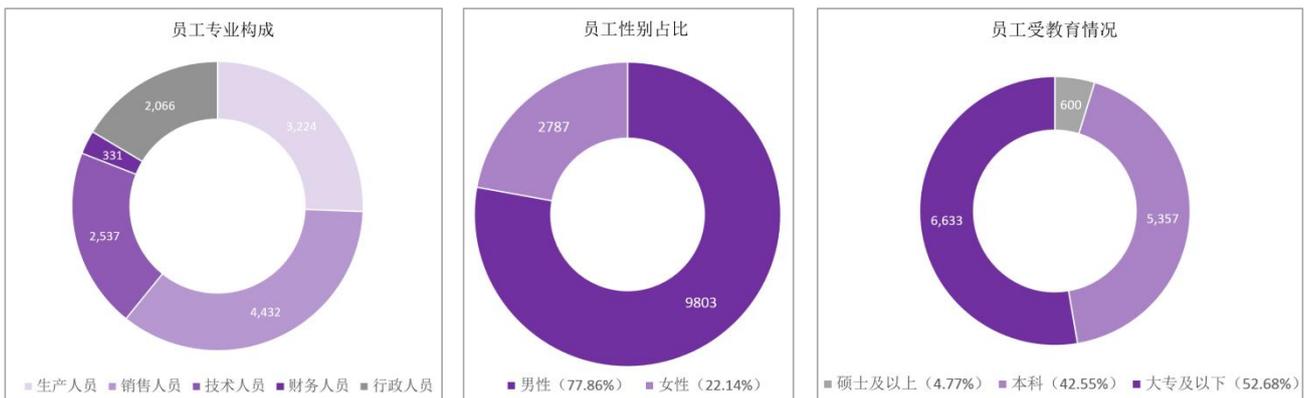
员工是企业宝贵的资源和财富，东方雨虹珍视员工价值，秉承“为国家、为社会、为客户、为员工、为股东”的企业宗旨，结合公司发展阶段、行业特点、人才结构等，全力维护员工合法权益。

2022年，公司继续创设内外部无边界沟通渠道，突出对弱势群体的权益保护，加强安全、环保、职业健康管理；同时，构建多维立体的员工关爱体系，施行多元化员工激励政策，畅通全员职业生涯发展通道，推进员工的成长与发展，提升员工的满意度，努力保障员工权益的实现，全情回报员工、回馈社会。

公司遵守有关劳工和人权的国际公约，遵守《中华人民共和国劳动法》《中华人民共和国劳动合同法》《中华人民共和国工会法》，倡导平等和非歧视的用工政策，禁止在招聘、薪酬、福利、晋升中有任何歧视行为，公平对待不同国籍、种族、文化背景的员工，充分尊重各民族员工的风俗习惯，尊重员工宗教信仰自由的权利；注重促进女性和少数民族就业，不断为员工创造公平、公正、和谐、人文的工作环境。

1、人才队伍建设

东方雨虹践行“以人为本”的发展理念，2022年招聘应届大学毕业生660名，引进美籍科学家，广泛吸纳海内外优秀人才，获得国家和省级人才奖励。公司坚持以事业留人、以待遇留人、以环境留人、以感情留人，优化人才队伍结构，共促企业发展基业长青，截止2022年底，公司共有员工12590人。



2、基本权利与保障

东方雨虹建立了严格的人力资源管理制度，严禁和抵制任何形式的雇用童工行为，严格避免强制劳动现象发生，至今没有出现过雇佣童工、强制劳动的现象。

公司切实保护残疾人等弱势群体的合法权益，每年参加残疾人就业专场招聘会，为残疾人提供销售代表、施工管理员、内勤等多个岗位的就业机会。

公司尊重女员工的职业发展，实行男女员工同岗同酬，女性员工享有完全平等的政治权利，在晋级中同等条件下优先使用女性员工；在工会管理、群众代表大会等重要的决策会议上，享有平等权利和地位；关爱女性员工身心健康，严格遵守国家相关规定，充分保障女员工“三期”休假，严禁女职工参加第四级重体力的工作，严禁女职工在经期进行冷水、低温作业；考虑到女职工特殊需要，结合医院建议，在女员工孕期不同阶段，额外补充产检假。



3、劳工权益的伸张

公司按照有关规定建立工会组织，同时，成立业务委员会，鼓励员工积极参与企业创新、业务管理，倾听业务一线的声音，尊重广大基层员工的权益。

公司积极营造内外部无边界沟通渠道。员工可跨部门、跨职级、跨地域，通过办公软件、企业邮箱、上访、举报箱等各类线上、线下渠道反映他们正在或者可能发生的人权问题。公司对员工的检举和上访即查即办，一事一结，绝不拖延。2022 年全年没有一例侵犯人权的举报和上访事件发生。

工会设立劳动争议调解委员会和劳动争议调解员队伍，坚持深入员工中，多方听取员工呼声，认真解答员工关心的热点、难点和焦点问题。对员工反映的重大问题，坚持“咨询必有答复、投诉必有处理、处理必有结果”的原则。

在涉及员工劳动关系、工资福利、劳动保护、工作时间、假勤制度等关系员工切身利益的大事上，严格按照相关政策法规，经职工代表大会讨论审议，充分听取和采纳员工的意见和建议，而后协商、公示、公布，并在集体合同中予以明确。

4、就业与雇佣

公司建立健全劳动用工制度，规范用工管理，员工劳动合同签订率 100%；并不断完善适应市场要求及企业发展的岗位体系，建立市场化的竞争逐步优化劳动用工结构，避免利用非固定保障的就业体制。



2022 年东方雨虹坚持属地化用工政

策，在均等的条件下，优先聘用当地员工，

依托公司在当地业务的快速发展，有力促进了当地就业率的提升。随着战略版图的不断扩大，公司在全国多地建立了全资子公司、生产研发物流基地，极大提升了当地的工业经济总量，促进了当地居民的就业，对优化产业结构、丰富产业门类起到了积极的促进作用。



2022 年在全国 100 余所院校开展宣传，组织宣讲会 100 余场，接收应届生 660 人。



5、薪酬激励

公司拥有完善的薪酬激励制度，根据岗位价值评估，按照薪酬水平市场化的原则以岗定薪、岗调薪调、效率优先、按绩取酬、兼顾公平；同时定期进行薪酬回顾和调整，逐步完善各种形式的中长期激励，力争为员工提供持续稳定、有吸引力、较为完善的薪酬体系，共享企业发展成果，向基层员工倾斜，致力于培养行业技术领先型的技术人员打造一流的工匠队伍。



公司社会保险和住房公积金制度健全，按规定及时为员工缴纳养老、医疗、失业、工伤、生育保险和住房公积金，全员全覆盖。同时，为常年出差人员额外购买意外伤害保险，对于外出培训及团体活动员工购买意外商业保险，让员工安心工作，放心出行。

公司在年度评先评优的基础上，增设“感动雨虹人物”奖项，对在工程、技术、管理、职能、销售等各序列业绩突出、成长迅速的先进集体和个人进行表彰，尤其对奋战在基层一线人员、屡创新高的普通销售人员给予奖励。

6、福利关爱

东方雨虹视员工为家人，致力于每个重大日子，东方雨虹都努力做到“爱，公司第一时间送上生日礼品、新婚礼金，怀感恩之情为员工父母送去诚挚的问候，重点大学，公司给予奖励。



打造四大福利关爱体系，对于每一不缺席”。员工生日、新婚、生育，及生育礼金；每年春节，公司还满候和新年礼物；基层员工儿女考上

7、健康安全

职业健康安全管理体系

公司把员工的健康安全放在首位，建立统的安全作业流程与操作规程，设立部门安进行危险源识别和检查，组织相关区域内作工职业健康管理档案，创造更有利于员工健全体员工进行身体检查，根据性别、年龄、检方案。



完善的职业健康安全管理体系，形成了系全员责任制，定期对车间、实验室等场所业员工定期开展职业病体检活动，建立员康的工作环境和劳动条件；每年定期安排工作性质、病史等多个角度，设计多种体

劳动保护

公司建有标准化劳动防护体系，配备完善的劳动保护用品和安全施工工具，定期进行实操和理论培训，帮助其掌握标准化操作规程、正确使用防护设备和个人劳动防护用品，增强员工的自我防护技能。

此外公司还注重营造安全文化氛围、打造安全的职业环境。生产现场设置职业健康安全警示标识；定期开展对粉尘、噪声、毒物等职业有害因素检测，并委托有资质的职业卫生服务机构每年对职业危害作业岗位进行卫生监测。及时对尘、毒、噪声等防护设施进行升级改造，淘汰落后工艺和技术，改善工作场所作业环境。

严格按国家规定给予防暑降温补贴，在高温季节定期发放防暑降温药物和饮品；在严寒、重度雾霾天气，及时调整工时、工作内容，保障员工在特殊环境下的安全与健康。

职业病防治

全面贯彻《中华人民共和国职业病防治法》，注重员工职业健康安全监护和职业病危害因素的防治，不断改善施工作业条件，预防、控制和消除职业病危害。对从事有职业危害因素作业的职工进行上岗前、在岗期间和离岗前的职业健康监护体检，体检结果全部及时准确地录入员工档案。对历史上确诊的职业病



例及时跟踪复查，对复查后需住院治疗的病人，及时组织到专业医院进行治疗，解除了员工的后顾之忧。特殊作业岗位员工，按规定实行保健津贴及休养制度，员工职业病发病率持续降低。

心理健康

公司将心理健康管理纳入日常管理工作，关注员工心理变化，主动把握不同员工、不同时期的心理状态，正确地进行人力的配置和转化，帮助员工缓解焦虑，促进员工心理健康。

减少或消除导致职业心理健康问题的因素，建立积极、健康的工作环境。一方面，改善工作的物理环境；另一方面，通过组织结构变革、领导力培训、团队建设、工作轮换、员工生涯规划等手段改善工作的软环境。



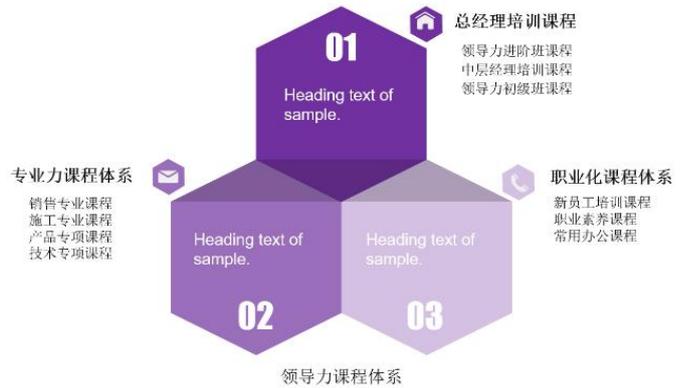
秉承员工与企业和谐共生、共同发展的理念，东方雨虹从员工全面发展出发，为员工提供进一步提升技能和知识的机会，以员工个人发展促进企业发展，以企业发展带动员工个人价值提升，搭建了新员工、管理人员、专业序列、合伙人等内容丰富的内部培训体系。

29 期 860 学时	22 场 395 学时	78 场 1872 学时
2823 人次	3177 人次	3120 人次
新人训	领导力培训	技能培训

2022 年度培训情况

2022年东方雨虹全面完善培训组织结构、运营流程、管理制度，进一步明确培训工作的战略定位、发展策略、资源建设目标和运营方针。对课程体系、师资体系、评估体系、知识管理体系进行了系统的复盘梳理，建立了全面的培训效果保障体系。

制度化保障：建立讲师制度、员工导师制，定期开展优秀学员、优秀导师、优秀讲师评选，鼓励员工参加职业资格及中高级职称认证，备考期给予带薪假期、认证费用报销等政策。在职位晋升时优先考虑自愿主动学习、会学习的员工，并对优秀学员给予奖励。



数字化学习	员工可通网络线上学习（E-learning）、直播平台、线下案例分享研讨等多种灵活方式开展拓展训练、理论学习和实操
专业化师资	公司与防水行业专家协会、高等院校开展战略合作，定期邀请专家、名师开展讲座，同时建立了内部讲师培养、认证体系，积淀雄厚的师资基础
定制化课程	公司根据岗位序列、职级和不同专业岗位有针对性地从事不同角度进行培训



职业规划与发展

2022年引进专业咨询机构，结合公司发展战略，建立并完善任职资格体系，设置五大族类、二十六个子序列，引导员工纵向专业发展、横向综合发展、专业路线、管理路线不同的职业发展路径。

依据职业化行为评价体系中的任职资格标准、职业发展规划与能力素质模型相结合的评价方式，鼓励员工通过常规发展、内部竞聘、破格提拔等其他方式进行岗位轮换和晋升。

加强绩效反馈与改进，把按季度开展员工绩效面谈、进行人才队伍的培养作为部门经理的重要职责之一，同时还引进一系列的测评工具，并结合360度评估等线下工具对员工开展分序列、分职位的不同结构评估，促进员工职业发展。

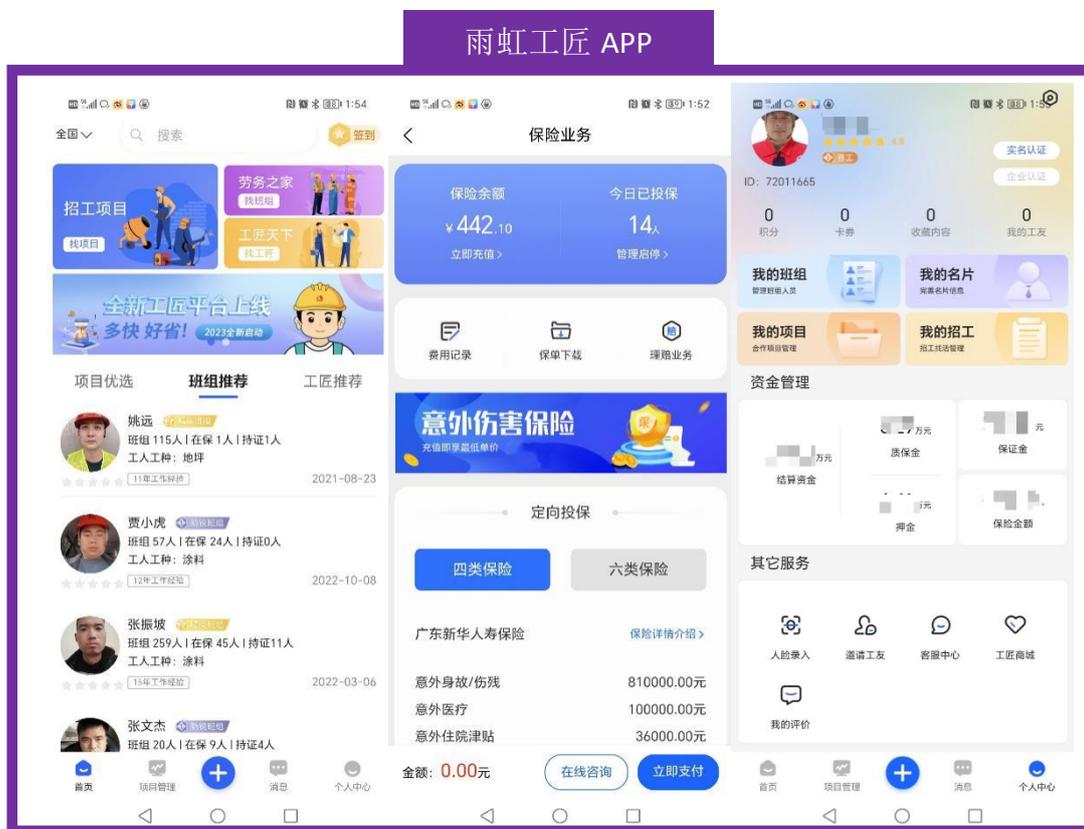
业务序列原职业发展通道主要通过管理序列晋升，现业务序列人员除通过“管理通道”晋升外，形成了多通道发展机制，为各类人才的发展提供途径。

（二）与工匠、工人共发展

作为中国建筑防水协会会长单位，东方雨虹为行业的发展积极建言献策，与广大工匠工人共发展。2018年8月正式上线东方雨虹劳务平台“雨虹工匠”平台APP。平台以施工队伍、工匠为服务主体，贯穿归集、整理、传输、处理、应用与服务全过程，包括：项目资源整合；劳务意外伤害保险信息化管理；工人角色实名制注册、招工功能，拓宽工人资源；实名制人脸别定位考勤打卡机制；以省为单位的劳务队线上属地化功能；施工队伍等级化管理；施工服务评价机制等。



2022年，东方雨虹以信息化为抓手，始终以科学严谨的工程管理制度为支撑，在切实保障一线施工工人合法权益的同时，进一步提升工程质量管理效能。2022年，“雨虹工匠”APP以其便捷系统，进一步深化“雨虹劳务周薪制”、保险“可视化”、培训“全覆盖”、质量正循环等举措的应用与落地，助力行业可持续健康发展。



1. “人多活多”：可自由注册，自由发布、平台覆盖各类大小微项目。
2. 安全真实：可查看人员简历及评价、但隐藏用户实名认证的关键信息，平台沟通采用虚拟号及在线交流方式、支持用户单点登录，保障用户隐私安全。
3. 管理赋能：通过人脸识别、定位打卡对项目施工人员进行考勤监管；可留存人员、施工日志及施工过程数据，协助管理人员记工记账。
4. 保险便捷：为多工种提供保障全面的保险产品，单日起投、结算灵活、可一键启停，出险理赔过程可视化。
5. 结算安心：线上支付、结算费用清晰、结算进度可追踪。

5400 支

现有施工队伍超

27 万 人

长期合作工人超

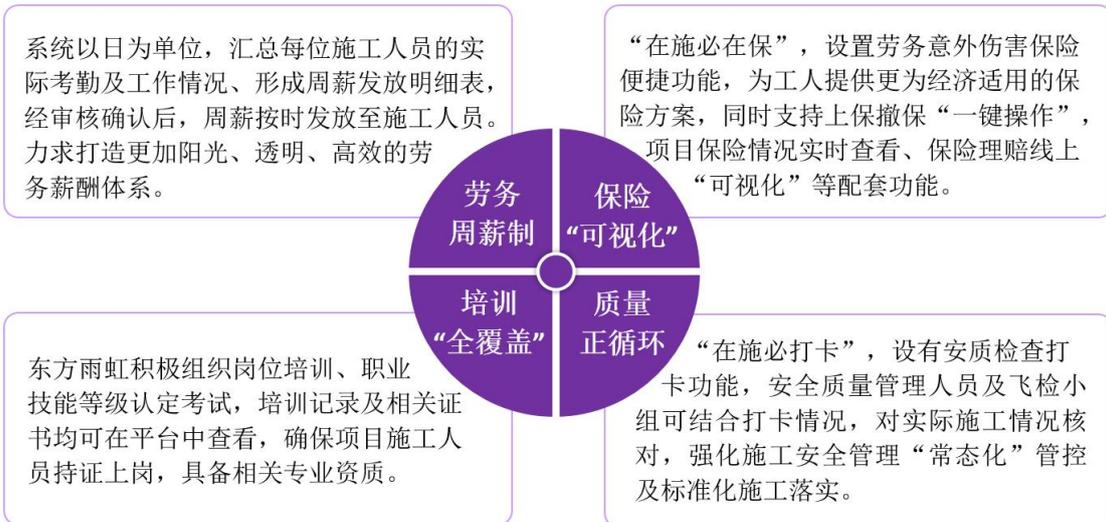
2 万+ 人

在施人员日均超

1 万+ 人

平台日活量超

截止 2023 年 3 月，雨虹工匠劳务平台相关数据



（三）爱心行动温暖社会

东方雨虹历来以“产业报国，服务利民”为指导思想，坚持履行企业社会责任，联动下属分子单位，通过帮扶弱势群体、援学助教、人居环境改善公益行等活动，巩固脱贫攻坚成果、助力教育事业发展、服务百姓居住环境，用真心行动奉献社会。

村企联建、帮扶弱势群体

1) 送温暖，维修改善村部环境



2022年1月25日，在芜湖市工商联系统开展的送温暖帮扶活动中，芜湖东方雨虹积极响应，前往洪港镇青岗村走访慰问并现场捐款，专门用于村部环境维修改善，用实际行动诠释扶贫济困的传统美德。

2) 党群连心桥爱心捐赠

2022年2月10日，广州花都区“10号工作室·党群连心桥”服务群众活动中，广东东方雨虹积极解民忧，为莲塘村利阿姨家爱心捐赠11.5万元医疗费用，践行“真善美”的企业价值观。



3) 中秋爱心慰问活动

2022年9月8日，徐州卧牛山积极参与当地慈善协会和开发区的村企联建活动，走进慰问徐州新沂市倪墩村，捐赠中秋爱心日常生活物资，慰问特困群体。



绿色建材下乡活动



在工业和信息化部、住房和城乡建设部、农业农村部、商务部、国家市场监管总局、国家乡村振兴局六部门指导，湖南省工业和信息化厅、岳阳市人民政府主办的 2022 年全国绿色建材下乡活动（湖南站）活动中，东方雨虹携瓷砖胶、防水涂料、美缝剂等系列产品参展，积极推广应用绿色建材，为美丽乡村建设贡献力量，获授“全国绿色建材下乡活动（湖南站）参与企业”称号。

关注教育事业

1) 奖助学金激励莘莘学子

2022 年 8 月 12 日，在常德市西洞庭管理区教育局，天鼎丰参加“爱心助学”捐赠仪式，为湖南常德市西洞庭一中、中心幼儿园捐赠第二期助学金；8 月 26 日，再次为山东临邑县第一中学捐助第十一期“天鼎丰奖学金”，这一爱心行动，已经坚持了 11 年。



德爱威继 21 年度与上海师范大学签署了校企合作并捐款 10 万元以来，2022 年 7 月，德爱威再次向上海师范大学教育发展基金会捐赠 10 万元，德爱威也将以企业之力持续推动培养更多的未来新力量，真正实现学生、学校、企业三方共赢。



2022 年 9 月，金丝楠膜&江南大学先进膜包装材料设计与制造联合实验室在江南大学举行揭牌仪式。双方将以联合实验室为载体，共同推动先进膜材料在包装领域的应用与发展。并向机械工程学院包装工程系品学兼优的学生颁发了“金丝楠膜奖助学金”

2) 爱心物资关爱青少年成长

2022年1月24日，岳阳东方雨虹积极参与当地团云溪区委困难青少年新春慰问活动，积极筹备爱心物资，为区内30多名困境中的青少年送去关怀。

2022年5月31日，咸阳东方雨虹建筑材料有限公司来到陕西省咸阳市礼泉县南坊镇中心小学，捐赠学习文具，为所有学生送去六一儿童节祝福，让儿童节的快乐氛围愈发浓厚，同时激励学生坚韧前行、奋发向上。



关注人居环境改善

1) 走入社区、抵制渗漏活动



2022年5月，荆州东方雨虹建筑修缮工程公司深入荆襄河社区，免费为辖区独居老人修缮房屋，帮助他们解决生活中的烦心事。

做为公司履行社会责任的缩影，雨虹到家服务在为“三无、残障”等社会弱势群体及军属家庭进行公益活动的同时，开展“走入社区、抵制渗漏”社区活动，为千家万户带去有温度的修缮服务，并在第十二届公益节上荣获2022年度公益践行奖。

2) 振动与噪音科普活动

2022年，中科建通旗下北交振安为改善人居环境质量，助力提高公共服务水平，深入北京外国语大学、北苑南路40号院等高校和居民小区，持续开展轨道交通振动与噪声及其环境影响的知识科普、监测等活动，为市民更好应对振动噪声的影响给予了积极帮助和建议。截至2022年底，北交振安在北京市24个小区、1所高校，开展了40余次知识科普、振动及噪声监测等公益活动。

结束语

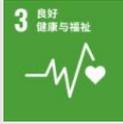
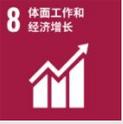
丘山积卑而为高，江河合水而为大。

征途漫漫无止境，置身中华民族伟大复兴的关键时期，围绕核心领域技术攻克、可持续发展转型升级，以及构筑人类美好生活等方面的开拓创新，将会比以往更加艰苦、更具挑战。这就要求我们必须敢于在疾风骤雨中弄潮涛头、奋勇搏击，以“千磨万击还坚劲”的顽强韧性，实现无愧时代、不辱使命的新作为。

东方雨虹把自己取得的一切商业成功和进步都归功于我们的时代，我们的国家，归功于客户慷慨无私的支持和社会的深厚关爱。永怀感恩之心，永念关怀之人，是东方雨虹文化的基本特征，是东方雨虹投入企业社会责任当中永远信奉的圭臬。

——东方雨虹董事长李卫国

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东方雨虹

2022年度可持续发展报告

Beijing Oriental Yuhong Waterproof Technology Co., Ltd.
Sustainability Report 2022



About this Report

Reporting Period: This report is published annually.

Scope of the Report: Take Beijing Oriental Yuhong Waterproof Technology Co., Ltd. as the subject, including its subsidiary companies and branches, business divisions, production, R&D, and logistics bases, and other branch institutions.

Scope of the Report: From 1 January to 31 December 2022. In consideration of continuity and comparison of disclosure, a part of the information is extended back or forth on the basis of time.

Abbreviations used: The word “Oriental Yuhong” or “the Company”, “the Group” herein refers to Beijing Oriental Yuhong Waterproof Technology Co., Ltd.

Report Compilation Principles: Objectivity, standardization, sincerity, and transparency.

Sources of Data: Beijing Oriental Yuhong Waterproof Technology Co., Ltd. and its wholly-owned subsidiaries or holding companies.

Report Improvement:

The Report of this year focused on demonstrating the Company’s practices of sustainable development and its contributions to build a better living environment.

Compilation Basis: It was compiled with reference to the UN SDG Compass and the China CSR Report Formulation Guide of the Chinese Academy of Social Sciences (CASS) (CASS-CSR4.0).

Language: The report is presented in Chinese and English.

Access to the report: The report is published only in an electronic version.

1. You can visit the Company’s website <http://www.yuhong.com.cn> or scan the right side QR code for an online PDF version.

2. Contact number: 010-59031914, Email: wangjh08@yuhong.com.cn.



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About Oriental Yuhong

Oriental Yuhong, incorporated in 1995, has grown into an outstanding service provider in the building material system over the past two decades, by providing high-quality system solutions for tens of thousands of important infrastructure construction projects, industrial buildings, civil buildings, and commercial buildings.

The Company was listed in 2008 and its key products have successively obtained multiple domestic and international certificates, such as the EU CE mark, the German Blue Angel label, the USDA Certified Biobased label, and the EMICODE EC1. Besides, it was granted honours like the 17th “National Quality Award”, the 2017 “National Quality Benchmark”, and the title of “Demonstration Enterprise in Technological Innovation of China”. The Company was included in the *Fortune* China 500.

<h1>Numbers</h1> <p>Look at Oriental Yuhong</p>	Operating revenue	RMB31,213,835,246.24
	Operating cost	RMB23,171,493,352.71
	Taxes and levies paid	RMB2,770,693,112.26
	Net profit	RMB2,117,843,197.99
	Total current assets	RMB32,346,290,148.18
	R&D spending	RMB556,315,937.11
<p>- Awarded A (Excellent) grade in the information disclosure assessment by the Shenzhen Stock Exchange (SZSE) -</p>		

➤ Quality and Robust Development

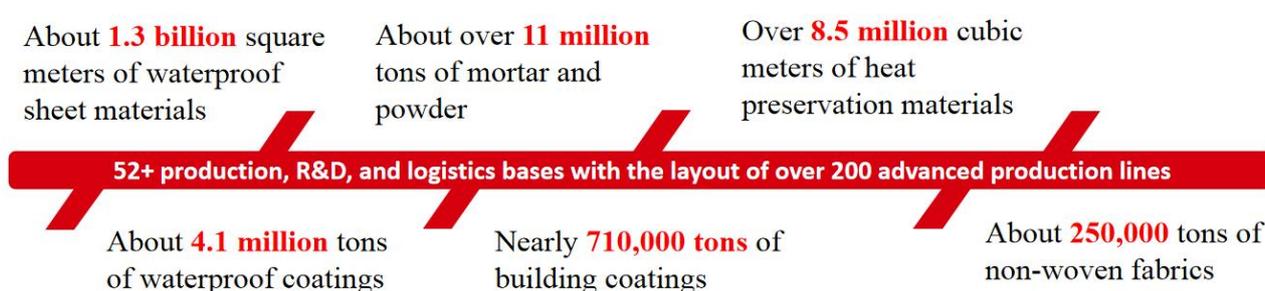
Oriental Yuhong has pursued quality and robust progress, focused on waterproof business, and extended its presence to the upstream and downstream and relevant industrial chains. It has developed a building material service system consisting of diversified business segments, such as building waterproofing, civil construction



materials, non-woven fabrics, architectural coating, building renovation, energy saving and heat preservation, mortar and powder, and specialized film. Oriental Yuhong holds more than 100 subsidiaries including Shanghai Oriental Yuhong Waterproof Technology Co., Ltd., HK Oriental Yuhong Investment Co., Ltd., and Oriental Yuhong North American Co., Ltd., etc. It has built over 52 manufacturing, R&D, and logistic bases respectively in Jinshan District in

Shanghai, Yueyang City in Hunan Province, Jinzhou City in Liaoning Province, Huizhou City in Guangdong Province, Xuzhou City in Jiangsu Province, Dezhou City in Shandong Province, Kunming City in Yunnan Province, Tangshan City in Hebei Province, Xianyang City in Shaanxi Province, Wuhu City in Anhui Province, Hangzhou City in Zhejiang Province, and Qingdao City in Shandong Province.

The Company has introduced advanced equipment from R&D Systems in the United States, Boato International in Italy, and KraussMaffei in Germany, and adopted technologies of EIRICH and Siemens, and the concept design of Bayer, realizing whole-procedure automatic production and establishing the benchmark of high capacity, high precision, and high stability. In addition, its services cover a radius of 300Km. Hence, it can reach customers within 24 hours.



➤ Driving Sustainable Development by R&D Innovation

Oriental Yuhong is a demonstration enterprise in technological innovation in China and a national high-tech enterprise. It has been authorized to build a state key laboratory of special-purpose waterproofing materials and has established many R&D platforms, such as a national-certified corporate technical centre and a post-doctoral scientific research station. The Company has built four R&D centres for product R&D, application technology, production technique and equipment, and engineering construction technology. Additionally, it has established the Oriental Yuhong Global Excellence Research Centre for Waterproof Coatings in the U.S.

➤ Becoming the Most Valuable Enterprise in the Global Construction and Building Materials Industry

As a service provider of construction materials and systems, Oriental Yuhong has successfully applied various excellent products and services to buildings, highways, metros, urban railways, high-speed railways, urban roads and bridges, airports, water conservancy facilities, and underground pipelines. It has also established long-term, friendly, and stable strategic cooperation relationships with more than 400 large real estate developers such as Vanke, Greenland, and Poly, and sold its products to families through nearly 3,000 house decoration companies and building material markets, for instance, Yezhifeng, City family Decoration, Huaxun Taste Decoration, and Trendzone Holdings.



With the implementation of Oriental Yuhong’s international strategy, the products of the Company are exported to more than 100 countries and regions such as Germany, Brazil, Australia, the United States, Canada, Russia, Japan, Singapore, South Korea, Central Africa and South Africa.

Oriental Yuhong is always making efforts to realize the dream of a “globalized Oriental Yuhong”, contributing to building a harmonious habitat for people, and fulfilling the corporate vision of “building a durable and safe environment for human beings and the society”.

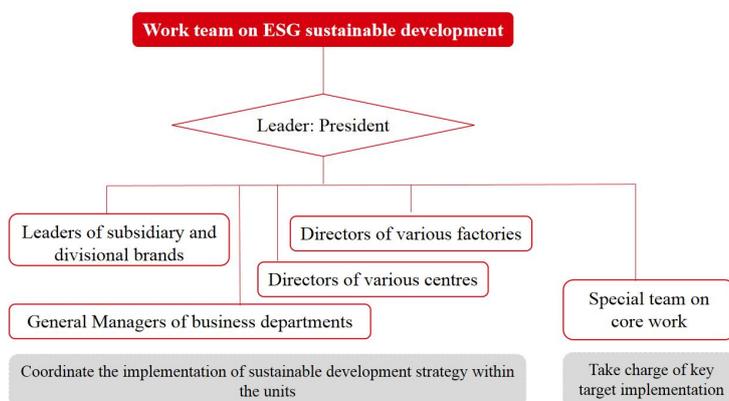
Sustainable Development Strategy

Oriental Yuhong has conformed to all market rules, respected market laws and its peers, co-existed and sought common progress with them honestly and respectfully. The Company pursues sustainable operations. There is never a termination but only new beginnings. Oriental Yuhong has kept improving its modern enterprise legal person governance structure. It has properly handled the relationships among investors, decision-makers, managers, and various stakeholders while ensuring the return to investors.

To fulfil sustainable development is the inner factor of Oriental Yuhong’s business operation. Through a whole system and multi-dimensional responsibility management concept, and starting from R&D, production, sales, construction, and other aspects, Oriental Yuhong strives to constantly provide much better products and services through more environmentally friendly, more energy-efficient, safer and more effective means, and implants the concept of sustainability into its daily production and operation.

(I) Management Mechanism

Oriental Yuhong believes a sustainable development shall be promoted tirelessly by all employees and effectively implemented to the actual practices of all business areas. In terms of the top-level design, the Company has established a work team on sustainable development, whose chief is Oriental Yuhong's President and members are leaders of its subsidiary and divisional brands, General Managers of business departments, and directors of different centres and factories. Meanwhile, it has also set up special working teams for core targets, ensuring the successful implementation of sustainable development strategy with members' cooperation in a target-oriented manner.



(II) Communication and Participation of Stakeholders

Oriental Yuhong conforms to all business rules and ethics, pursuing unique features and excellence on the basis of compliant operation and adhering to the business principles of honesty, trustworthiness, frankness, and openness to proactively communicate with stakeholders and promote mutual development.

Stakeholders	Requirements and Expectations	Communication Methods	Response
Government	Complying with laws and regulations	Release of policies and instructions	Strictly complying with laws and regulations Responding to national policies
	Creating job opportunities	Expansion of reproduction	Providing adequate jobs
Shareholders	Corporate governance The continuous growth of operating result	The periodic reports and interim announcement General Meeting of Shareholders Easy IR Hotline and email for investors Result briefings Roadshows and strategy conferences Field research	Performing robust operations Perfecting corporate operation and governance Perfecting information disclosure
Employees	Compensation and benefits	Employee survey	Multi-dimensional and detailed questionnaires
	Training and growth	Exchange and training	Training of professional skills Training of general knowledge
	Career development	Face-to-face communication	Protection of employee rights and interests
Customers	Quality products and services	Services before, during, and after sales DMS system	Project quality assessment User interviews

Craftsman	Remuneration	Service survey	Weekly-pay system
Suppliers	Open, fair, and just procurement	Supplier meetings SRM system	Perfect tendering management
	Qualification review	Seminars	Compliant and well-organized operations
	Honest management	Routine business exchange	Internal audit and inspection
Industry	Promoting industrial quality improvement	Demonstrating product and service quality	Leading positive industrial development
Communities and social groups	Participating in community development	Volunteer activities of employees	Contributing to the society
	Supporting public welfare undertakings	Public welfare activities	Participating in public welfare in different forms
	Environmental protection	Energy conservation and emission reduction	Driving the realization of carbon neutrality

Shareholders: In 2022, Oriental Yuhong made a total of 157 public notices throughout the year, of which, four were made regularly to ensure investors’ timely supervision and transparent operations of the Company. The Company has held two, 15, 24, and ten meetings of the general meetings of shareholders, the Board of Directors, special committees under the Board of Directors, and the Supervisory Committee, respectively, throughout the year to ensure its standardized operations. The Company has established a smooth and two-way communication channel with investors through many approaches, including the Easy IR platform, investor hotline, email, holding online presentation meetings of the Annual Report, online exchange and survey of specific groups, reception of field survey, and holding the General Meeting, accepting investors’ opinions and suggestions with an open mind and proactively responding to questions of their concern. In 2022, the Company has answered more than 1,000 telephone calls from investors and replied 201 times to counselling on Easy IR.

Employees: The Company has implemented an incentive policy for middle and senior management, core business and technical personnel. It has launched four phases of equity incentives and employee stock ownership to incentive recipients when they met the conditions with a total of 8,000 incentive recipients. In 2022, the Company has completed the procedure of voluntary exercise for 3,294 incentive recipients who met the exercise conditions during the first exercise schedule in the stock option incentive scheme in 2021. It has relieved 347,434 unlockable restricted shares of the year for 19 incentive recipients who have met unlocking conditions in the fourth unlock period of the reserved part in the restricted share incentive scheme’s second phase, and relieved 8,726,077 relievable restricted shares of the year for 1,552 incentive recipients who have met the conditions of restricted shares relieving in the second period of restricted share relieving of the restricted share incentive scheme’s third phase. The Company has also completed the repurchase cancellations for reserved restricted shares in the second phase of restricted share incentive scheme and a total of 1,307,517 restricted shares granted but not relieved, which were all or part of the restricted shares of 309 incentive recipients in the restricted share incentive scheme’s third phase. Equities have been returned to employees who are with truthful identities, beliefs and endeavours to stimulate them to give full play to their values and realize their worldly ideals.

Labour services: Oriental Yuhong has actively responded to the Decree No. 724 of the State Council - “Regulations on guaranteeing wage payment of migrant workers”, comprehensively promoted the weekly-pay

system and the real-name system for workers of Oriental Yuhong, raised the competitiveness of labour resources, and calculated the labour quota of the project in a timely manner. While perfecting the labour wage system, Oriental Yuhong has also provided affordable insurance services to better guarantee the rights and interests of front-line construction workers.

Partners: On 29 March 2022, the “Assessment Release of the Best 500 Real Estate Developers” were jointly held by the China Real Estate Association and the China Real Estate Evaluation Centre of E-house China R&D Institute in Shanghai. Oriental Yuhong, Wonewsun Energy Saving (heat preservation materials), DAW (coatings), Oriental Yuhong Building Renovation, Vasa (mortar), LODI 1813, and other brands were rewarded as the “2022 Preferred Brands for Best 500 China’s Real Estate Developers”. In which, Oriental Yuhong has consecutively ranked amongst the top ten waterproofing material enterprises in the “Preferred Supplier and Service Provider Brands for Best 500 China’s Real Estate Developers”, and was awarded for the 11th time in 2022. In the sub-list of TOP100 real estate enterprises’ grounding rate of strategic cooperation, the Company ranked first with a preference rate of 65%, and continued to be the top one service provider in the building renovation system with a preference rate of 25% regarding building renovation. In the selection of high-end water-based paint brands, DAW topped the list with a brand preference rate of 17%.

Communities, social groups, and organizations: Oriental Yuhong has always kept the society in its mind. It has actively joined social groups and associations, mainly including China Association for Quality, China National Building Waterproof Association, China Building Materials Federation (CBMF), Beijing Sci-tech Consultation Association, Beijing Enterprise Technology Centre Innovation Service League (BETC), Beijing Headquarters Enterprise Association, Beijing Technology and Finance Promotion Association, Beijing International Cooperation Bases League, Beijing Industrial (National Defence) Labour Union, China Machinery, Metallurgy and Building Materials Workers Technical Association, and Beijing Federation of Industrial Economics.

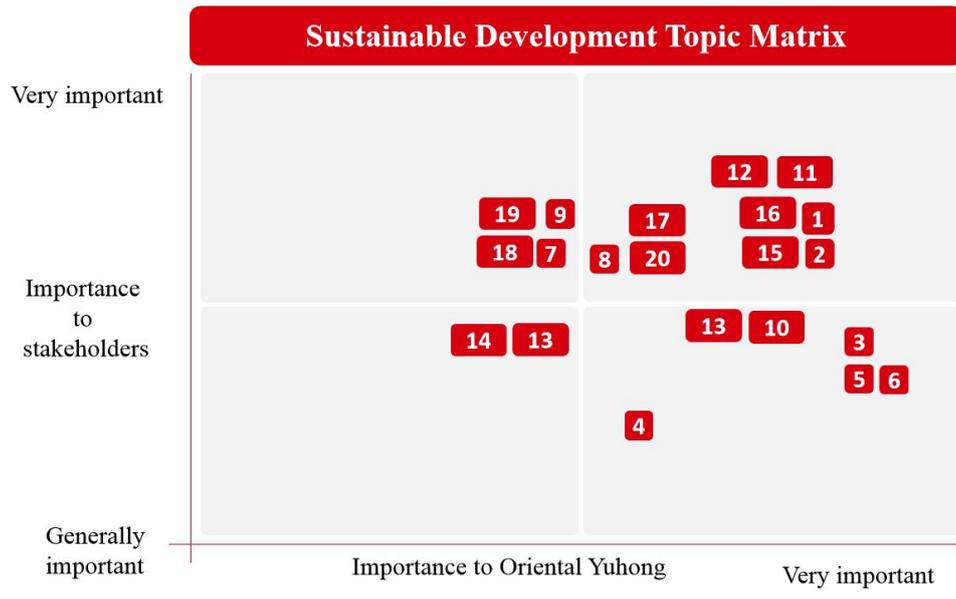
(III) Sustainable Development Honours and Awards

HONOUR

<p>Hurun Research Institute 2021 Hurun China Private Companies SDG Readiness 100</p> <p>10 January 2022</p>	<p>Ministry of Industry and Information Technology The list of industrial products green design demonstration enterprises (the fourth batch)</p> <p>28 October 2022</p>	<p>The United Nations Industrial Development Organization Excellent case of CSR in China’s construction industry</p> <p>20 December 2022</p>	<p>People’s Daily and People’s Daily Online The Green Development Award of the 17th People’s Enterprise Social Responsibility Award</p> <p>24 December 2022</p>
			<p>JRJ 2022 Outstanding Green and Low-Carbon Contribution Award for Listed Companies in China</p> <p>30 December 2022</p>
<p>Department of Energy Conservation and Resources Utilization of the Ministry of Industry and Information Technology 2022 List of Green Manufacturing (Shanghai Oriental Yuhong Waterproof Technology Co., Ltd.)</p> <p>20 February 2023</p>	<p>Forbes 2022 Forbes China Top 50 Sustainable Industrial Enterprises</p> <p>13 February 2023</p>	<p>All-China Environment Federation 2022 green supply chain case of the “Belt and Road”</p> <p>10 January 2023</p>	

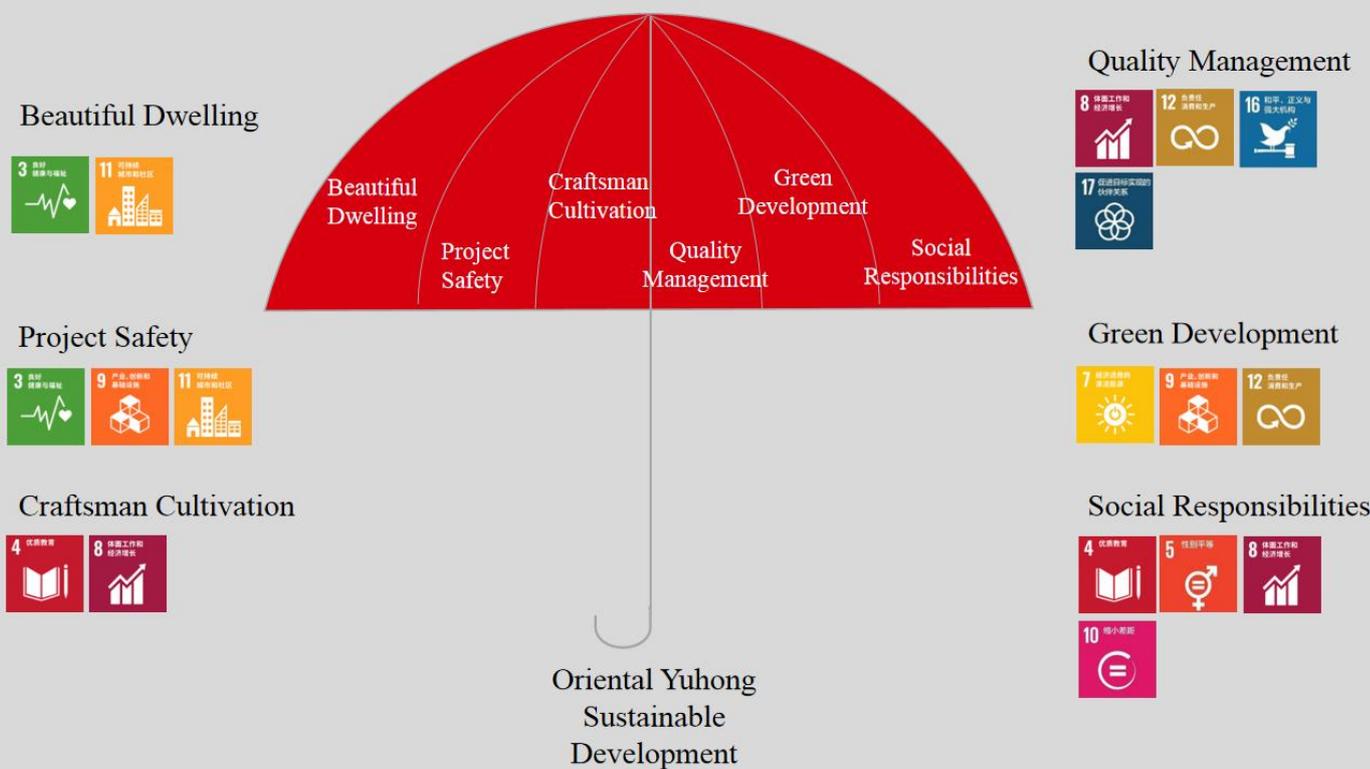
(IV) Sustainable Development - Identification of Substantive Topics

By engaging in effective and ongoing communication and exchange with various stakeholders, Oriental Yuhong extracts topics that align with the *Sustainability Reporting Guidelines* and contribute towards achieving the United Nations Sustainable Development Goals (SDGs). This helps to establish the substantive topic matrix for Oriental Yuhong.



Corporate Management	Customer Service	Environment & Resources	Social
1. Standardized corporate governance 2. Compliance information disclosure 3. Risk management 4. Supply chain management 5. Research & innovation	6. Quality management system 7. System service support 8. Professional technical support 9. Tracking service for post-purchase support	10. The management system of safety production 11. Energy consumption 12. Various emissions 13. Green product R&D 14. Reducing building carbon emissions	15. Employee relationship management 16. Occupational health & safety 17. Industry craftsman cultivation 18. Assistance for vulnerable groups 19. Social public welfare practice 20. Industry operation under the sun

This leads to the formation of a sustainable development model under an “umbrella”, which guarantees the consistent execution of the Company’s sustainable development strategy.



(V) Key Performance Indicators of Sustainable Development

Business Category	Environmental Category	Social Category
<p>Sales presence spans across 136 nations and territories</p> <p>Obtained credit from 39 banks</p> <p>Total credit amount of RMB19,459.025 million</p> <p>Brand preference rate of 65%</p> <p>Annual R&D investment of RMB556,315,900</p> <p>By the conclusion of 2022, a total of 1,522 legitimate patents</p> <p>53 instances of counterfeit and substandard products were subject to criminal investigation</p> <p>The products obtained 22 different types of certifications, resulting in 547 product certification certificates</p>	<p>Investment in environmental protection amounted to RMB73,541,600</p> <p>RMB35,134,565 was invested in safety measures</p> <p>100% pass rate for environmental protection acceptance checks</p> <p>100% standard emission for environmental pollution control facilities</p> <p>5 MIIT green factories</p> <p>16 factories passed the certification of the three ISO systems</p> <p>14 factories passed the energy management system certification</p> <p>The PV roofing of factories generated 9,275,560 kWh of power, resulting in a reduction of approximately 5,416 tons of carbon dioxide emissions.</p> <p>The use of environmentally-friendly XPS boards resulted in the direct consumption of approximately 371.81 tons of CO².</p>	<p>12,590 employees</p> <p>The proportion of female employees is 22.14%</p> <p>There have been 129 employee training sessions conducted, with a total duration of 3,127 hours.</p> <p>The number of individuals who exceeded the equity incentive targets is over 8,000.</p> <p>A total of 880,000 craftsmen have been trained cumulatively.</p> <p>1 National May 1st Medal recipient</p> <p>14 National Technical Experts</p> <p>Over 5,400 construction teams on the labour service platform</p> <p>Over 270,000 long-term cooperative workers</p>

I. Dwelling Chapter: Contributing to a Beautiful Living Environment with Yuhong's Power

A beautiful living environment is integral to a happy life. As living standards continue to rise, the demand for housing has evolved from the basic need for shelter to the pursuit of improved and healthy living. The construction materials industry plays a crucial role in creating a safe, reliable, green, and low-carbon living space using high-quality, environmentally friendly, and finely crafted materials. By doing so, it can help realize the vision of a beautiful living environment.



(I) Making Living Safer

At Oriental Yuhong, safety and environmental protection are given top priority in product development. The company has obtained authoritative certifications from China and abroad for most of its products, including the China Environmental Label, Germany's Blue Angel and E.L.F., the U.S. USDA Bio-based, Germany's TÜV Rheinland, FREI VON, EC1, and France's Indoor Environmental Monitoring A+. The company is constantly innovating and introducing new products in the building materials and auxiliary materials industries that are closely related to people's living. By utilizing a range of environmentally friendly products, it provides consumers with a fundamental guarantee of a healthy and eco-friendly home environment.

Home Waterproofing	Home Decoration Grouting	Wall Antibacterial	Paints
<p>The Soluton 150 fluorocarbon film self-adhesive modified bituminous waterproof sheet material is designed to be used without a protective layer and is able to withstand exposure to the elements. Its white surface film is resistant to ultraviolet radiation and effectively reduces the roof temperature by 20°C during the summer.</p> <p>Yuhong 300 self-healing waterproof coating utilizes self-repairing technology to effectively address leakage</p>	<p>Oriental Yuhong's full line of grout products do not contain nonylphenol or hexamethylene diamine.</p> <p>In 2022, the Company launched its Yucai Silver Ion Antibacterial Grout, utilizing silver ions to inhibit the activity of various enzymes within microbes. This effectively makes tile gaps antibacterial, achieving a 99% antibacterial rate. The grout prevents the growth of black mould, yellow</p>	<p>In early 2022, Oriental Yuhong formed a strategic partnership with the China Anti-bacterial Association (CIAA) and established a joint laboratory for antibacterial and mould-proof technologies in building decoration materials. They pioneered a comprehensive antibacterial and moisture-proof wall coating solution, employing a dual-core antibacterial and</p>	<p>DAW's Light Breath Bio-based Wall Paint has received U.S. USDA Bio-based Product certification (with a bio-based content of up to 30%). It has passed Germany's E.L.F. test and meets high domestic environmental protection standards, such as safe occupancy within 24 hours. The paint effectively decomposes free formaldehyde in indoor air. The Childhood Little Elephant Anti-Virus Children's Paint provides up to 99% antibacterial inactivation of Type A influenza viruses (H3N2 and H1N1) hidden</p>

<p>issues resulting from damage to the waterproof layer. Yuhong’s plant-based waterproof coating incorporates safety, regeneration, and plant resources, with a bio-based content of 38%, setting the highest standard, or the ‘ceiling,’ in the waterproof coating industry.</p>	<p>mould, budding short stalk mould, green wood mould, wax leaf bud branch mould, Penicillium wan, spherical hairy mould, and orange mould, ultimately avoiding mould formation in tile gaps.</p>	<p>mould-proof technology. This provides double mould barriers and blocks mould growth channels, resulting in a 99% antibacterial effect. This approach brings the concept of healthy home living to the forefront of the building material market.</p>	<p>in rooms within 24 hours. Alpina’s New Noble Wall Paint offers high coverage, easy application, delicate paint film, and efficient brushing. It has received Germany’s FREI VON environmental certification and the New Blue Angel certification, providing double environmental protection and promoting health from within.</p>
Flooring	Tile Adhesive	Plaster	Indoor Air Treatment
<p>The FD dry underfloor heating board consists of a high-strength XPS extruded board and a uniform heating layer. It boasts a Class B1 combustion performance, utilizing brominated SBS eco-friendly flame retardant, and is free from harmful substances like formaldehyde and VOCs.</p> <p>The Fudi insulated soundproof flooring system is composed of FD insulated soundproof decorative floor tiles, adhesive, tile grout, vertical sound insulation strips, and interface agents (when necessary). It provides excellent sound insulation, adhering to green building standards.</p>	<p>Zen Sound Insulation Lightweight Large Tile Adhesive reduces weight by 50%, making construction more convenient. It offers noise reduction of over 30 decibels, achieving level 5 sound insulation. Compared to ordinary tile adhesives, it can further reduce cement consumption by 21%.</p> <p>The low-carbon tile adhesive technology introduces “mineral admixtures to replace part of high-energy cement.”</p> <p>The dust-free tile adhesive technology effectively reduces dust particles during construction, protecting workers’ lung health.</p>	<p>Vasa WallSafe S160 lightweight plaster provides high coverage, is lightweight, and allows for a one-time thick application. It has a strong bond, firmly combining with capillary networks, and prevents hollowing or cracking. It can adjust indoor humidity and is safe, environmentally friendly, as well as offering insulation and soundproofing features. It serves as an excellent aid for new energy-saving air-conditioning systems (capillary network cooling and heating radiation air-conditioning systems).</p>	<p>Yuhong’s Home Service uses Tsinghua University’s patented “Qingda Negative Oxygen Ion” product and Belgium’s KU Leuven technology, employing a purely physical method to consistently generate negative oxygen ions. Its pollution source fumigant can treat odours produced by organic pollutants found in boards and other materials, as well as ammonia, benzene, and acid odours in daily life. The free formaldehyde purification solution decomposes indoor formaldehyde; the carbon reduction and oxygen-enhancing environmental liquid reduces carbon dioxide exhaled by humans and increases the release of negative oxygen ions indoors; activated carbon particles purify and adsorb formaldehyde in enclosed spaces.</p>

The data mentioned above is based on Oriental Yuhong’s laboratory data, and may differ from actual usage data.

Technical Achievements: In July 2022, Oriental Yuhong’s “Healthy Building and Community Creation Theory, Key Technologies, and Large-scale Application” was awarded the Scientific and Technological Achievement Appraisal Certificate by the Architectural Society of China. This ground-breaking

achievement established a technical index system for healthy buildings and communities, based on the six key health elements of “air, water, comfort, fitness, culture, and service,” providing crucial technological support for the development of a healthy living environment in China.

- ◇ By utilizing human factors engineering, a system for creating healthy building and community environments was established, providing critical support for the innovative development of China’s healthy living environment.
- ◇ Key technologies for protecting healthy building and community environments have been developed, which deliver multiple benefits and increase efficiency, successfully breaking through the technological bottleneck in creating a healthy living environment.
- ◇ A range of high-performance, cost-effective key products and equipment have been developed to enhance the performance of healthy buildings and communities, promoting the growth of the healthy living environment industry.
- ◇ Participation in the development of an integrated technology and standard system for healthy buildings and communities, tailored to China’s national conditions, has been instrumental in promoting large-scale engineering applications.

Oriental Yuhong’s high-quality products and services have also received widespread recognition in the industry:

- In July 2022, at the 2022 Coating Industry & Waterproofing Industry Summit Forum and Brand Gala, Oriental Yuhong Civil Construction Materials Group won the “Home Decoration Waterproofing Influential Brand” for the fourth consecutive year.
- In September 2022, at the Chinese Architectural Society Academic (Shanghai) Forum and Shanghai International Architectural Culture Week event, Fuda Company’s FD dry underfloor heating product was awarded the “New Low-Carbon Technology Product Award.”
- In November 2022, the Beijing Evening News published the “2022 Home Furnishing Brand Year-end Review” list, with Oriental Yuhong winning the “Top Ten Home Furnishing Brands of 2022.”
- In January 2023, the DAW Caparol 188+ Home Trend Colour Card received the “2023 German Design Award - Outstanding Visual Communication Design - Special Commendation Award.”

(II) Making Buildings More Energy-efficient

Against the backdrop of the carbon neutrality strategy, the industry has taken a keen interest in energy-saving and emission reduction in buildings. The *China Building Energy Consumption and Carbon Emissions Research Report (2021)* released by the China Association of Building Energy Efficiency reveals that carbon emissions from the entire building process in China account for approximately 50% of the country’s total carbon emissions. The Ministry of Industry and Information Technology, National Development and Reform Commission, Ministry of Ecology and Environment, and Ministry of Housing and Urban-Rural Construction jointly issued the *Implementation Plan for Carbon Peaking in the Building Materials Industry*. This plan highlights significant

progress in adjusting the industry structure and continuously promoting energy-saving and low-carbon technologies during the “14th Five-Year Plan” period.

Technical achievements: In December 2022, the “Key Technology Development and Industrialization of Self-adhesive Polymer Bitumen Vapour Barrier Material for Building Envelope” was assessed by experts organized by CBMF and found to be at an internationally advanced level.



This project developed vapour barrier products for building envelopes by researching key technologies involved in the development and industrialization of self-adhesive polymer bitumen vapour barrier materials for building envelope structures, including structural and compositional design, industrial production processes, and engineering applications. It has achieved large-scale production by investigating key process conditions and equipment for industrialization and has formed a construction method, product standards, and construction technical specifications for self-adhesive polymer bitumen vapour barrier material systems through product engineering application key technology research. This has led to product scale promotion, engineering application, industrialization, market demand satisfaction, and the promotion of energy-saving building and low-energy-consumption building technology development in China.

Near-zero energy buildings: Oriental Yuhong’s Wonewsun Building Energy Efficiency has established strong cooperation with top institutions such as the German Energy Agency, the Passive House Institute of Germany, and the China Building Research Institute, creating the country’s first “HEEC Near-Zero Energy Building Smart Platform.” The platform can produce passive building-specific waterproof rolls, vapour barrier rolls, graphite-modified moulded polystyrene boards, rock wool boards/bars, environmentally friendly XPS boards, adhesives and plastering mortar, alkali-resistant coated medium-alkali fiberglass mesh cloth, thermal bridge anchoring hardware, waterproof vapour barrier film, waterproof breathable film, decorative mortar, waterproof mortar, MS adhesive, thermal bridge downspout, integrated insulation and decoration, integrated insulation structure, aerogel composite materials, and other near-zero energy consumption waterproof insulation vapour barrier products.

As of January 2023:



In 2022, the Wonewsun Near-Zero Energy Building Design Institute further consolidated its leading position in the industry by providing integrated guidance for the management of ultra-low/near-zero energy consumption projects from multiple perspectives, including zero-energy buildings, productive buildings, low-carbon communities, zero-carbon communities, carbon sinks, carbon footprints, carbon labels, carbon assets, and carbon standards.

Case: Shandong Huajian Hotel

The Shandong Huajian Hotel, located in Linqu County, Weifang City, has a passive area of 46,500 square meters and a shape coefficient of 0.11, making it the largest passive hotel in China. The building adopts a passive enclosure system, passive doors and windows, and high-performance fresh air heat recovery systems to significantly reduce the overall energy consumption of the building. The designed roof thermal transmittance is $\leq 0.1W/(m^2 \cdot K)$, the wall thermal transmittance is $\leq 0.16W/(m^2 \cdot K)$, and the door and window thermal transmittance is $\leq 1.0W/(m^2 \cdot K)$, meeting the standard of ultra-low energy consumption buildings.



Case: Collaborating with Fosun to create a passive residential model in Nantong

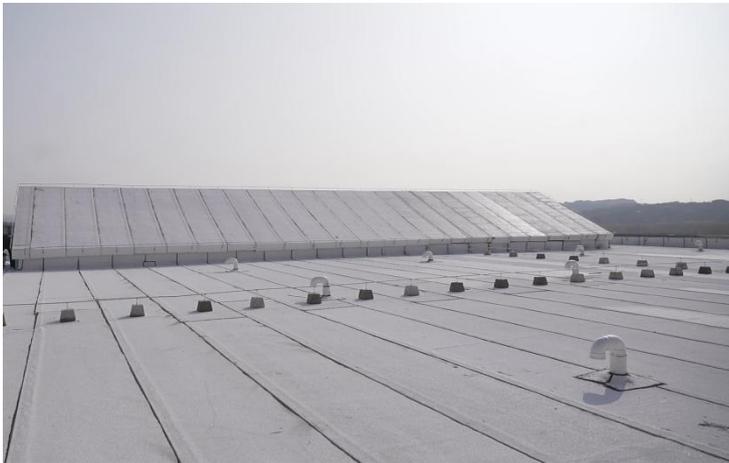
Shoukai Zijun is the first passive ultra-low energy consumption building developed by Beijing Capital Development Holding Group in Nantong. The project requires high precision construction, especially for detailed treatment of elements such as parapets, rainwater funnels, exhaust ducts, and ventilation pipes. For example, additional airtightness treatment is required for joints between different wall structures and the interior of bolt holes to ensure the overall airtightness of the building, using waterproof vapour barrier films for sealing. Wonewsun has earned the project owner's recognition through its reliable products and standardized services.



The exposed firmament roofing energy-saving waterproofing system: Oriental Yuhong has specially developed a series of cold roof waterproofing systems that offer reliable waterproof performance, high reflectivity, and excellent radiative cooling performance. These systems are particularly suitable for storage buildings requiring low temperatures year-round (such as grain reserve warehouses and cold storage facilities) and high-density, energy-intensive units (such as data centres, schools, malls, and residences).

The system employs space anti-radiation technology to effectively reflect UV radiation, reducing UV damage, slowing down material UV aging, and extending the product's service life. It can decrease summer roof temperatures by 20-30°C, save energy consumption for summer cooling, mitigate urban heat island effects, and reduce nitrogen and sulphur compound emissions. The system effectively lowers summer roof temperatures and has a long service life.

During the summer high-temperature period (based on 100 days), indoor cooling energy consumption can be reduced by 15%-20%. For every 1,000 square meters, this saves 6,000-8,000 kWh of electricity. According to calculations, saving 1 kWh of electricity reduces CO₂ emissions by 0.997kg, resulting in a total reduction of 5,982-7,976kg of CO₂ emissions.



Hong Sheng PV Roofing System: Oriental Yuhong began exploring the integration of TPO roofing with distributed photovoltaics in 2010 and launched the Hongsheng Roof System. The company now has multiple successful projects that combine TPO with distributed PV power stations, such as Chery Jaguar Land Rover in Changshu, Hefei Haina (NIO) New Energy Vehicles, Gotion High-tech, Honeycomb Energy Power Battery, Jiangyin Envision Energy, and Tianjin Changchun Auto Parts. To date, Oriental Yuhong has completed more than 40 million square meters of TPO roofing systems, with a total installed PV capacity exceeding 100 MW and a total construction area of over 1 million square meters.

Oriental Yuhong/Hong Sheng has established strategic partnerships with China Energy Investment Corporation/China Electric Power to leverage their respective strengths and explore new energy development, building-integrated PV waterproofing, and energy-saving solutions. Together, they aim to advance the new energy industry. They have also collaborated with various enterprises across the PV industry value chain. Among these collaborations, they have partnered with JinkoSolar Holding Co., Ltd. to establish Yuhong JA New Energy Technology Co., Ltd., jointly promoting the expansion of businesses in PV module sales, TPO PV integration, and PV waterproofing renovation and repair for existing buildings.

Roof area	Installed capacity of modules	Annual power generation	Standard coal saved	Reduced carbon dioxide emissions
1 million m²	98.4MW	102.73 million kWh	Approximately 13,345 tons	Approximately 60,000 tons

Yuhong JA 2022 annual related data

II. Engineering Projects: System Services Strengthen Engineering Safety

Engineering is a manifestation of human civilization and a carrier for the inheritance of civilization. Engineering construction has improved the human living environment and raised the material living standards of humanity. China is currently in a period of rapid urbanization, with various engineering constructions changing rapidly, and building materials enterprises are playing an important role in this process. As a building materials system service provider, Oriental Yuhong is dedicated to applying waterproofing, insulation, energy-saving, anti-corrosion, coatings, and repair systems to various engineering buildings, providing solid protection for the safe operation of buildings.

(I) Transportation Infrastructure

Efficient transportation is essential for a flourishing economy, as it serves as a crucial support and guarantee for economic development. Transportation safety is intricately linked to our daily lives. Oriental Yuhong closely integrates the market demands of the transportation industry, accelerates product research and development, and upgrades, adhering to the principle of quality first, and excellence in technology, products, and construction. It provides professional services and system guarantees for various transportation infrastructure facilities, such as highways, railways, roads and bridges, tunnels, and more, making every effort to protect the safety of transportation infrastructure.

In 2022, Oriental Yuhong conducted technical exchanges with Anhui Transport Consulting & Design Institute and Hunan Provincial Communications Planning Survey & Design Institute to discuss new modes of green and intelligent highway development. They also collaborated with powerful partners like the Maintenance Branch of Zhejiang Expressway Group Co., Ltd., and China Communications Materials Co., Ltd., to promote the healthy development of transportation construction and contribute to the development of national highway transportation.

Case: HDPE Assists in the Construction of Pan-Da Expressway Baoding Tunnel Project

In November 2022, the HDPE polymer self-adhesive waterproof membrane participated in the construction of the waterproofing project for the Pan-Da Expressway Baoding Tunnel, winning the 2022 “Building Waterproofing Industry Science and Technology Award - Engineering Technology Award (Jin Yu Award - Waterproof Engineering).” The geological structure of the Baoding Tunnel is complex, with abundant groundwater, rock bursts, and gas outbursts, resulting in high waterproofing requirements and significant challenges in the



waterproof construction. Oriental Yuhong's HDPE polymer self-adhesive waterproof membrane effectively solves the project's waterproofing challenges with its excellent properties such as pre-paving anti-seepage, flameless construction, lightweight, and easy installation, contributing to the high-quality construction of the project.

(II) Industrial Workshops

The industrial sector plays a “ballast” role in the macro economy, with China's manufacturing industry maintaining the top position in the world for 13 consecutive years. Among these, various types of workshops are the foundation of high-quality industrial development. Oriental Yuhong actively integrates into the wave of real economy development, providing systematic solutions for the construction of industrial workshops and facilities of different regions, industries, and types with professional, customized products and services.

Products such as TPO single-layer roofing, HDPE pre-paving anti-adhesion, Space Fort, Hong Sheng PV Roofing, Fuda Fort/Extruded board/Fuda Cool board, glass wool rock wool, and floor systems have been widely used in roofs, floors, walls, pipes, and other fields, fully safeguarding the development of the industrial real economy.



Case: TPO Roofing System

As part of China North Industries Group's strategic plan for the “14th Five-Year Plan” period, the Harbin Dongan Auto Engine Co., Ltd.'s new energy hybrid system new base Phase I construction project was established as one of the billion-level industrial bases. In line with the project's characteristics and application scenarios, Oriental Yuhong utilized the TPO waterproofing membrane mechanical fixing method for standardized construction of the roofing system. TPO offers a lengthy lifespan, weldable seams, and energy-saving and environmentally friendly properties. Its

Case: Fuda Fort

The Huawei Songshan Lake Tuonanwa No.6 plot project has a total construction area of 569,100 square meters and is an important part of Huawei's Tuonanwa base development strategy. The project will become a world-class intelligent manufacturing benchmark factory for terminal wireless manufacturing (manufacturing department) after completion. Fuda Company's Fuda Fort product is used in the roof insulation construction of the project, with its excellent insulation and heat preservation performance, moisture-proof and anti-seepage, high compressive resistance,

remarkable ability to adapt to low temperatures ensures that the contemporary production line within the workshop remains free of leakage.

dimensional stability, and green safety advantages, contributing to the high-quality construction of the project.

Case: InfinShine Glass Wool

In the construction of the Zhuhai Gree High-end Intelligent Appliances (Gaolan) Industrial Park, the “InfinShine” glass wool smoke exhaust duct system was utilized to maintain a high level of safety in the workshop. “InfinShine” fire-resistant smoke exhaust ventilation glass wool board is made of evenly distributed long glass fibres and environmentally friendly bonding agents through special processing, wrapped around the exterior of the metal duct of the fire-resistant smoke exhaust system. It can isolate the heat of fire smoke from transferring through the duct wall, discharging smoke and heat during a fire, ensuring personnel evacuation and firefighting rescue.

Case: DAW Solvent-Free Epoxy Self-Levelling System

DAW solvent-free epoxy coloured sand self-levelling system is a seamless, integrated composite decorative flooring made of coloured lightweight sand and epoxy resin. By combining different colours of sand, it forms a highly decorative surface. With its outstanding capabilities, DAW has assisted in the floor upgrade and renovation project of Sun Paper’s Shandong General Factory PM11&12. Using its solvent-free epoxy floor coating system, DeAiWei has created a customized workshop floor solution for Sun Paper, further promoting the factory’s green and environmentally friendly construction.

(III) Municipal Facilities

The *World Cities Report 2022* issued by the United Nations Human Settlements Programme indicates that the provision of sufficient infrastructure and the renewal and modernization of aging infrastructure remain important priorities for the future of cities. In other words, the construction and renewal of urban infrastructure also serve as an important basis for residents’ sense of happiness and gain.

The importance of urbanization construction is self-evident. However, with the complexity of urban construction and the emergence of new municipal facilities, the demand for relevant technologies and products is also rising geometrically. The “dual-city” construction involves underground tunnel and utility tunnel and overground building and sponge city, has become a common phenomenon in more and more cities.



Oriental Yuhong serves municipal construction by deeply tapping technical potential and constantly expanding product application scope.

The utility tunnel is featured by complex construction technology and structure. The construction of utility tunnel entails addressing the waterproof problems that may be identified in deformation joint, construction joint, through-wall pipe, reserved interface, etc. Besides, it is clearly stipulated in the *Technical Code for Urban Utility Tunnel Engineering* that, the useful life of the structure of utility tunnel engineering should be designed as 100 years. With a special high-density polyethylene sheet as the substrate, the HDPE polymer self-adhesive film waterproof sheet material produced by Oriental Yuhong is compounded with viscous hot melt pressure sensitive adhesive, and the adhesive layer thereof is coated with PET film for isolated protection. The HDPE polymer self-adhesive film waterproof sheet material can form a waterproof layer on the side wall and top plate of the utility tunnel, which can eliminate the hidden danger of water channelling between layers, thus effectively improving the reliability of the waterproofing system. Relying on its quality products and services, Oriental Yuhong has contributed greatly to the construction a number of utility tunnels respectively located in Beijing Municipal Administrative Centre, Shaxi Line in Chengdu City, Kunming Road in Xi'an City, Liupanshui City in Guizhou Province, and Yuxi City in Yunnan Province.

HDPE Contributes to the Construction of the Utility Tunnel in Shaxi Line, Chengdu

Chengdu Shaxi Line Transformation Project is the first spatially integrated landscape street in the theme of “Sichuan embroidery” in China. In the subproject of underground utility tunnel involved in the project, the HDPE polymer self-adhesive film prelaying waterproofing system of Oriental Yuhong is finally selected for waterproof purpose by virtue of its advantages in such aspects as product performance, system service and service life. By now, the aforesaid waterproof system has provided more than 100,000 square meters of HDPE prelaying anti-adhesive polymer self-adhesive film waterproof sheet materials for the project, well safeguarding the safe construction and operation of the underground utility tunnel.

In the field of tunnel construction, Oriental Yuhong has formed a number of systems such as the open-cut floor prelaying anti-adhesive waterproofing system, the anti-sagging system for side wall, the rubber sealing system for the undercut shield section, and the thin coated polyurethane system for the elevated section. Adhering to the philosophy of high-quality development featuring the combination of “specialization, refinement, characterization and novelty”, Zhong Ke Jian Tong, one of the subsidiaries of Oriental Yuhong, actively deploys a variety of projects across the industrial chain such as operation and maintenance projects, tunnel and underground projects, slope and foundation pit projects, and vibration and noise reduction products, and possesses more than 10 patents and software copyrights such as the soil restoration structure against water inrush in deformation joint, the grouting-based water stop structure against water inrush in tunnel lining, the non-destructive detection device targeting concealed water leakage path in tunnel cushion, and the AR intelligent patrol software targeting rail transit infrastructure. Being recognized across the industry, the Company has successively reached cooperation with China Railway Group Limited, China Railway Construction Corporation Limited, China Communications Construction Company Limited and China State Construction Engineering Group Co., Ltd. on metro construction in multiple Chinese cities such as Beijing, Shenzhen, Qingdao, Changchun, Shenyang and Harbin.



(IV) Commercial/Civil Building

We walk through all kinds of buildings every day. Every part of a building, such as visible facade or architectural colour or invisible waterproof insulation layer, or overground roof or underground garage, cannot be separated from the craftsmanship of building or building material practitioner. Oriental Yuhong attaches great importance to craftsmanship, and has launched competitive products and services in a number of fields.

Oriental Yuhong has developed and launched a composite waterproofing system for planting roof with independent intellectual property rights, namely the Yuhong Taohuayuan water drainage and storage system, which can effectively address several pain points of planting roof such as poor drainage, water channelling and leakage, and is suitable for drainage and leakage collection works with difficulty in slope finding such as large-area planting roofs of all kinds of buildings. On the basis of ensuring the root puncture resistance of the waterproof layer of the planting roof, the aforesaid waterproof system can realise organized and directional drainage with zero slope, making it possible to effectively protect the building in an all-around manner; additionally, it can also add the water storage module as demanded to collect, absorb and utilize rainwater resources, thus helping the city absorb and discharge rainwater just as an ecological “sponge”. The products of Oriental Yuhong have been successfully applied in many communities in Beijing, Hebei, Shandong, Hainan, Gansu, etc.

Example: Join Hands with China Overseas Grand Oceans Group Ltd. (“COGO”) in Building an “Urban Peach Garden”

In the “Lanzhou COGO Huan Yu Tian Xia Yun Zhi Jing” project, COGO strives to, while addressing the pain points of the planting roof of traditional underground buildings such as poor drainage, water channelling and leakage, achieve faster “purification” and smoother “storage and storage” of rainwater in communities, and thus improve the living environment and create liveable and ecological green garden landscape. Oriental Yuhong selects the Yuhong Taohuayuan water drainage and storage system to provide zoning-based power-free drainage for the project, which can reduce the hidden danger of leakage while achieving carbon emission reduction, cost lowering and efficiency improvement.



The architectural colour of a city represents the posture of its dialoguing with the world. Different colours manifest different humanistic temperaments. Inheriting the research concept and achievements of DAW Group in Germany with respect to architectural colour material, DAW is dedicated to customizing architectural colour material schemes for customers. DAW can provide design sketch on colour material configuration for not only urban planning, civil residence, commercial complex and functional building, but also indoor home space. The Company popularizes the colour material system of DAW and the colour material trend of Europe for urbanists, design institute experts, professional designers, construction experts, etc., in an effort to endow urban buildings with more possibilities.

Example: Old Building, New Vitality

The Schlossturm in Dusseldorf is an art landmark located along the Rhine River. As a tower building with a history of roughly 700 years, the Schlossturm was severely exposed to the weather due to its exposed position near the Rhine River, with the old coating part thereof being badly damaged. DAW provides a customized coating renovation solution for the Schlossturm. The systone fixative is adopted to ensure the weatherability and waterproofing of the bottom base. The tower building is newly coated with the systone sol silicate with a mineral facade colour, which is compatible with the non-mineral old coating, presenting a bright exterior tone, endowing the historic tower building with a new look once again.



(V) Water Conservancy Facilities

Water is the source of life, necessity of life and foundation of ecology. Promoting water conservancy and removing water hazards are also important for development. The construction of water conservancy facilities can effectively achieve the sustainable development of water conservancy and economy. Water conservancy projects, especially century-old ones, typically have an especially high demand for relevant materials. Tiandingfeng, a subsidiary of Oriental Yuhong, introduces the production line of high-strength coarse denier polypropylene filament needled geotextile designed and manufactured by FARE Company in Italy. With its product performance far exceeding the national standard, Tiandingfeng becomes the only enterprise in China that masters the production technology of polypropylene filament needled geotextile. The aforesaid technology has been recognized as an “Advanced Water Conservancy Technology” and granted with corresponding promotion certificate by the Ministry of Water Resources. In addition, the Company has also won the national honorary title of “Single Champion Enterprise in the Manufacturing Industry.”

Example: Tiandingfeng Supports the Construction of the Project of Water Diversion from the Huaihe River to the Dabie Mountains Old Revolutionary Base Area



On 24 May 2022, the project of water diversion from the Huaihe River to the Dabie Mountains Old Revolutionary Base Area (located in Xixian County, Xinyang City, Henan Province) for irrigation, successfully achieved weir breaking for water inflow. The polypropylene filament needled geotextile produced by Tiandingfeng is adopted for slope protection involved in this project. The polypropylene filament needled geotextile produced by Tiandingfeng is featured by high single fibre strength, high overall physical and mechanical indicators, coarse denier and large pore size,

thanks to which its vertical permeability coefficient can reach 0.25cm/s and equivalent pore size reach 0.15mm, endowing it with great water permeability and anti-silting performance. Moreover, the product also has strong chemical resistance, and can be stably used in any environment with a PH value of 2-13 without disappearing due to hydrolysis; it is also well resistant to freezing and thawing, and can be stably used in frozen soil areas on plateau for a long time. By virtue of the aforesaid advantages, the product and has been widely used in all kinds of water conservancy projects.

III. Craftsman: Vocational Education Promotes High-quality

Development of the Industry

A large number of skilled craftsmen are necessary for China to achieve high-quality development and become a manufacturing power. The newly revised Vocational Education Law, which came into effect on 1 May 2022, focuses on enhancing the recognition of vocational education, deepening the integration of industry and education and the cooperation between schools and enterprises, improving the system and measures for guaranteeing vocational education, and better promoting the high-quality development of vocational education.

Adhering to the philosophy of long-termism, Oriental Yuhong takes the lead in establishing the Oriental Yuhong Vocational Skills Training School (“Yuhong Vocational School” for short) in the industry to build a team of knowledge-based and innovative skilled talents, cultivate high-quality technical and skilled talents, and promote the high-quality development of vocational education.



The Oriental Yuhong Vocational Training School is the only one that has obtained the Private School Permit of the People’s Republic of China in the industry. Meanwhile, it is also the only institution in the industry that has obtained the qualification for social training evaluation organization in Beijing. It can carry out the vocational skill level accreditation and training for 19 types of work fallen into 11 categories. At present, the school has established 11 directly affiliated campuses in Shunyi District in Beijing City, Kunming City in Yunnan Province, Changzhou City in Jiangsu Province, Xuzhou City in Jiangsu Province, Guangzhou City in Guangdong Province, Wuhan City in Hubei Province, Chengdu City in Sichuan Province, Yinchuan City in Ningxia Province, Hangzhou City in Zhejiang Province, Quanzhou City in Fujian Province, and Hangzhou City in Zhejiang Province, and 52 training bases in provinces such as Henan, Shandong, Shaanxi, Anhui, and Hunan. As to teaching staff, among the full-time teachers of the school, national technical experts account for 70%.

11	52	12	880,000
Directly affiliated campuses	Training bases	Closely cooperative colleges and universities	Trainees

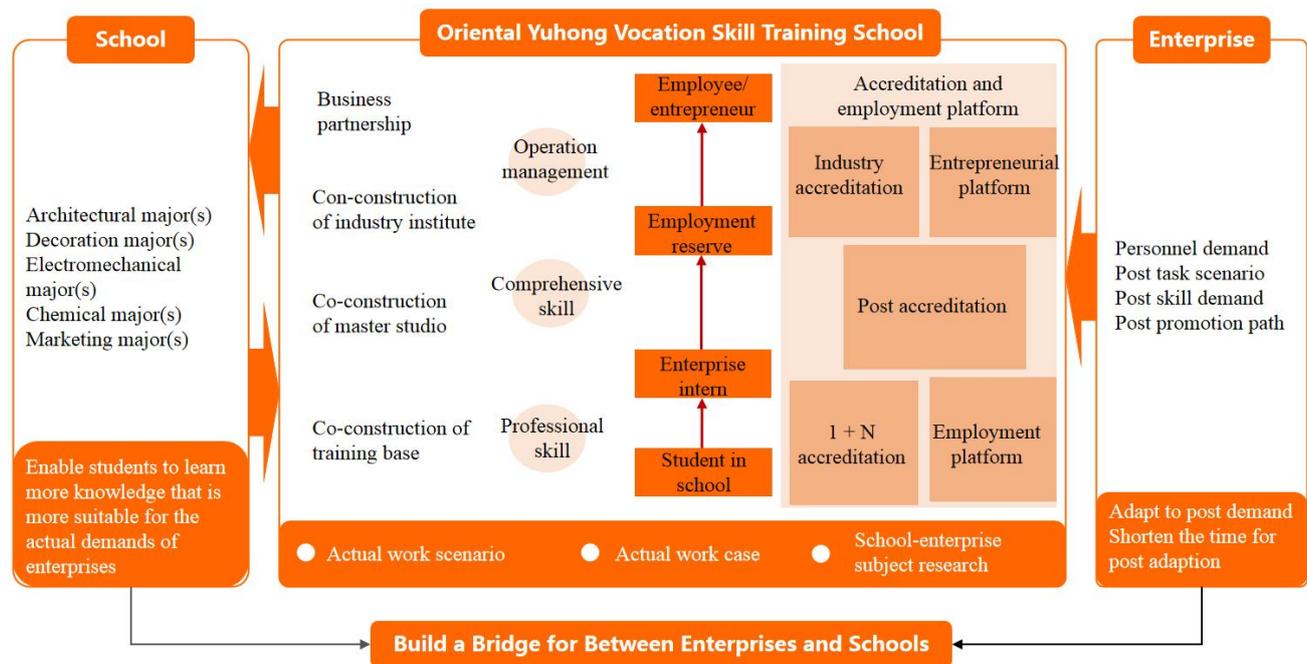
For more than a decade, it has remained committed to the talent cultivation philosophy of “doing more, saying less, and maintaining sincere, humble and practical”. In addition, it adheres to the teaching approach of “practicing while learning and learning while practicing” and cultivates modern technical craftsmen that are dedicated, lean,

focused and innovative from the aspects of professional ethics, capability, and quality. By now, a total of 880,000 persons have participated in the training.

Social recognition	Deputy Director Unit of the Equipment Committee of the Chinese Society for Vocational Education	Founding unit of the China Building Waterproofing Vocational Education Group	Training base for the World Championship for Young Roofers
	One of the pilot colleges and universities for the first batch of new apprenticeships for enterprises in Beijing	Holder of the qualifications for independent accreditation of vocational skill level accreditation and for social training evaluation organization	Winner of the honorary title of “Skill Master Studio in Beijing”

Oriental Yuhong proactively conducts cooperation with various vocational skill colleges and universities in China. Up to now, it has fostered two national technical experts and five finalists of the National Vocational Skill Competition of the Building Materials Industry for colleges and universities closely cooperating with the Company. Furthermore, it has set up 12 Master Studios in Beijing, Xuzhou, Changzhou, Guangzhou, etc., cultivating approximately 300 apprentices within one year.

Oriental Yuhong actively organizes social training. By now, it has obtained the qualification for social training evaluation in Beijing and Guangzhou, and the qualification for independent accreditation of vocational skill level by enterprises themselves. Over the past three years, Oriental Yuhong has completed the accreditation of vocational skill level for 15,016 persons in total.



The Company has published seven textbooks, including the *Installation Graph of Thermoplastic Polyolefin (TPO) Waterproofing Membrane* with the Company as author, the *Training on Building Waterproof Construction*, the *Building Waterproof Design and Construction*, the *Waterproofer and the Graph of Tile Veneer Construction Technology* with the Company as editor-in-chief, and the *Building Waterproof Construction Technology* and the *Chinese Building Insulation and Fire Protection Products and Application Technology Thereof* with the Company as co-editor.

The Company launches the programs of “30-day Introductory Training for Newbies” and “One-year Apprenticeship Workshop”, mainly targeting graduates from technical secondary schools, vocational schools and junior colleges who intend to engage in work related to building materials, decoration, etc., with a view to achieving the target of “earnest craft teaching, 100% employment recommendation”, and planning and preparing in advance for the cultivation of the new generation of technical and skill talents.

Moreover, the Company actively undertakes all kinds of national second-class competitions and industrial competitions, to better establish the image and reputation of contemporary great craftsman in the minds of the public, and form the consciousness of seeking high-quality development, pursuing high-quality life and consumption, and respecting technology and professionalism. The Company has participated in the waterproofer vocational skills competition organized by the industry for ten years in succession, and accumulatively won 26 champions, 18 runners-up and 12 second runners-up, involving 85 winners in total. For technical talents cultivated by the Company, the Company has cultivated one winner of the National May 1st Labour Medal, 14 national technical experts and 2 provincial technical experts in such fields as building waterproofing and decoration.

IV. Operations: High Quality Lays a Solid Foundation for Steady Development

The year 2022 was challenging: Factors such as the complex and changeable international context, increasingly fierce market competition, volatile prices of raw materials, and tightened layouts of the infrastructure construction and real estate industries placed the construction and building materials industry under pressure. Nevertheless, Oriental Yuhong flexibly responded while taking stock. It adhered to the strategic orientation toward high-quality, steady development and persevered in working hard for the long run. By prioritizing risk control, holding fast to the customer-oriented approach, and making tireless efforts in R&D, production, marketing, channels, and services, Oriental Yuhong provided high-quality, professional, and complete system solutions for customers and created a one-stop platform for system services.

(I) Quality Management

In strict accordance with the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, and the *Code of Corporate Governance for Listed Companies*, the *Listing Rules of Shenzhen Stock Exchange* and the requirements of relevant laws and rules of the CSRC and Shenzhen Stock Exchange, Oriental Yuhong has continuously improved its governance mechanism, refined the corporate governance structure, strengthened internal and external management and supervision, actively fulfilled the philosophy of sustainable development, and continued the standard operation. The Company's governance structure conforms to normative documents on the governance of listed companies issued by the CSRC and its operation management is strictly in keeping with various policies and regulations.

Oriental Yuhong	DAW
	Oriental Yuhong
	Fuda
	Engineering Coating Group
	Engineering Building Materials Group
	HAMGAR Industrial Coating Co., Ltd.
	Hong Sheng (Beijing) New Energy Technology Co., Ltd.
	Hongyi Enterprise Service Co., Ltd.
	Construction Robot Company
	Building Renovation Group
	Holdings Department
	Civil Construction Materials Group
	Ningxia Architecture Design & Research Institute Co., Ltd.
	Emery Powder Technology Group
	Tiandingfeng Holdings Co., Ltd.
	Investment Holding Company
	Wonewsun Energy Saving and Heat Preservation Group
	New Material Group
	Manufacturing Group
	Zhong Ke Jian Tong
Asset Investment	

Oriental Yuhong has been recognized in society, thanks to its quality operations, products, and services. Some of the honours and titles obtained by the Company in 2022 are listed below:

1. Examples of Industry Recognition

Industry Recognition	Honours and Titles
<i>Forbes</i>	Forbes Global 2000 in 2022
Hurun Research Institute	Hurun China 500 in 2022
All-China Federation of Industry and Commerce	Top 500 Private Enterprises in China in 2022
The <i>Economic Observer</i> 2022 Happy Life Summit	Outstanding Service Business of the Year
China Building Materials Federation (CBMF)	2022 Top 100 Global Building Materials Listed Companies in Comprehensive Strength (34th)
2022 Boao Forum for Entrepreneurs	2022 Top 100 New Types of Real Economy-Based Enterprises (59th)
Beijing Enterprise Confederation and Beijing Boao Entrepreneur Association	Top 100 Enterprises in Beijing in 2022 (32nd) Top 100 Manufacturers in Beijing in 2022 (10th)
China Council for Brand Development, China Appraisal Society, and Xinhua News Agency National Brand Project Office	Included by “China Brand Evaluation Press Conference” for five consecutive years

2. Examples of Capital Recognition

Capital Recognition	Honours and Titles
New Fortune & Guanghua-Rotman Centre for Information and Capital Market Research	New Fortune “Best Listed Company” (Fourth Session)
Securities Times	“Best Investor Relations Award of Chinese Listed Companies” and “Best Board of Directors in Investor Relations of Chinese Listed Companies” in the 13th Tianma Award for Investor Relations of Chinese Listed Companies
Securities Times	“Top 100 Listed Companies on the Main Board by Value” and “Outstanding Management Team of the Year of Listed Companies in China” in the 16th Awards of the Value of Listed Companies in China
Deloitte China, Bank of Singapore, HKUST Business School, and <i>Harvard Business Review</i> China	Excellent Chinese Company in Management

3. Examples of Service Recognition

Service Recognition	Honours and Titles
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2022 Coating Industry Summit & Waterproofing Industry Summit & Brand Event	Influential Brand in Engineering Waterproofing, Influential Brand in Waterproof Sheet Material, Influential Brand in Polymer Waterproof Sheet Material, Innovative Solutions of Polyurethane Waterproofing Materials, Influential Brand in Home Waterproofing, Influential Brand in Waterproof Coatings, Influential Brand in Tile Adhesives, Influential Brand in Grout, Influential Brand in Putty Powder, and Influential Brand in Exterior Wall Coatings
2022 Real Estate Brand Evaluation	2022 Top Five Preferred Real Estate Supplier Brands in Technological Innovation
VVUPUP	3-star Supplier (Waterproofing Materials)

(II) Digital Transformation

A new round of technological revolution and industrial transformation is accelerating the deep integration of digital technology and the real economy. Cutting-edge technologies, including cloud computing, big data, artificial intelligence, and the industrial Internet of things, are driving various industrial resource factors to flow efficiently, and “smart construction” and “intelligent manufacturing” have become the pillars of high-quality development of the construction and manufacturing industries.

Oriental Yuhong perseveres in the solid industrial foundation and information-based empowerment. Driven by modern production and operations management modes, such as intelligent manufacturing, “5S management”, and lean production, Oriental Yuhong has vigorously advanced the in-depth application of new high technologies in R&D and design, manufacturing, marketing services, and operations management and persisted in building and refining the new ecosystem of intelligent industries that are “automated, digital, lean, integrated, and intelligent” in technological R&D, manufacturing, design & building, construction inspection, and system services.

The Company has restructured its business process and data standards using digital means. By pushing back, the effectiveness boundaries of traditional organizations, the Company has achieved digital, online, and open internal operations management. Additionally, it has extended management scope and prioritised risk control to lower operating costs and improve operations quality.

- The Group has developed a data standards system to unify the standards for various master data on materials, customers, suppliers, organizations, and finance and cleanse tens of millions of data. As a result, standards for each system are unified, and the value of data is accumulated as that of assets.
- Business process have been unblocked, substantially increasing the online coverage of business scenarios. The online coverage of principal business scenarios of core business process is increased from less than 50% to nearly 90%. For example, through the deeper integration of marketing platforms, SAP ERP, APS, WMS/TMS, and MES, and the comprehensive promotion of MRP, the Company has achieved end-to-end alignment ranging from sales plans, production plans, stock-up plans, procurement plans, to delivery plans, order-based visual management of the whole life cycle, and removed risks and efficiency bottlenecks caused by process interruption.

- Business operations have become more automatic. With the introduction of various systems, 300-plus types of business have been optimised and improved and hazards resulting from manual work reduced. By doing so, management efficiency has been greatly boosted. For example, bookkeeping, invoicing, account recognition, and account statement issuance have become automatic. Additionally, the rates of automatic order distribution and scheduling have reached 90% and 86%, respectively, the HR efficiency has been boosted by more than 50%, and the computing efficiency for safety stock has been improved by 87%.
- Lean management capabilities have been enhanced to lower operating costs. Through ERP restructuring and the launch of MES, Company has switched its manufacturing mode from repetitive manufacturing to discrete manufacturing, switched the cost accounting from monthly accounting to order-based accounting, and switched in-person production, process, and consumption reporting in production execution to online reporting.
- A systematic know-how system has been gradually developed to replace the original experience conversion with standardised operating process, models, and know-how.

(III) Innovation and R&D

Oriental Yuhong has always remained committed that technologies are the engine for the Company’s development. With a global view, it has exerted all its energies to develop and introduce core technologies. Relying on the synergy of “talent, capital, and mechanism”, the vitality of technological innovation has been continuously stimulated, thus driving the reform and progress of the industry.

3	2	1	42	150
The National Torch Plan project	The National Key New Product Technology	The National 863 Plan project	Core technologies that passed the technological achievement authentication	Independently developed products

Research system: Based on the technological innovation strategy, the Company developed a scientific research system that covers product R&D production processes, application technology, engineering technology, detection and tests, overseas R&D, and strategic reserves, and formed a “Carrier Battle Group” that covers “system design, materials development, construction, and technological service”.

Research platforms: Oriental Yuhong is a



demonstration enterprise in technological innovation in China and a national high-tech enterprise. It has been authorised to build a state key laboratory (the only one in the industry) of special-purpose waterproofing materials and has established many R&D platforms, such as a national-certified corporate technical centre, a post-doctoral scientific research station, and an engineering laboratory for advanced rubber and plastic waterproof materials in Beijing. The Company has built four R&D centres for product R&D, production technique and equipment, application technology, and engineering construction technology. Additionally, it established the Oriental Yuhong Global Excellence Research Centre of waterproof coatings in Philadelphia, the US.

In August 2022, DAW was recognised by Hangzhou Municipal Science and Technology Bureau as the “Hangzhou DAW High-Performance and Environmental Coating Enterprise High-tech R&D Centre”. In October 2022, with excellent R&D innovation strength, DAW was authorised to establish a provincial postdoctoral research station in Zhejiang Province. Both have proved that DAW’s technological innovation and R&D capabilities have been recognised, which will help DAW draw high-calibre R&D talent and commercialise technological achievements faster, thereby contributing to the industry transformation and upgrading.



Research talent: The Company has vigorously attracted excellent technical personnel at home and abroad and set up the Chief Scientist mechanism to develop an international R&D team. At present, the team consists of one expert granted special government allowances of the State Council, seven academicians from the Chinese Academy of Engineering, and 25 technical leaders.

Research cooperation: The Company has made no effort to conduct technical cooperation with research institutes, colleges & universities and renowned suppliers at home and abroad, in order to contribute to the output of innovative R&D achievements by capitalising on each other’s strengths.

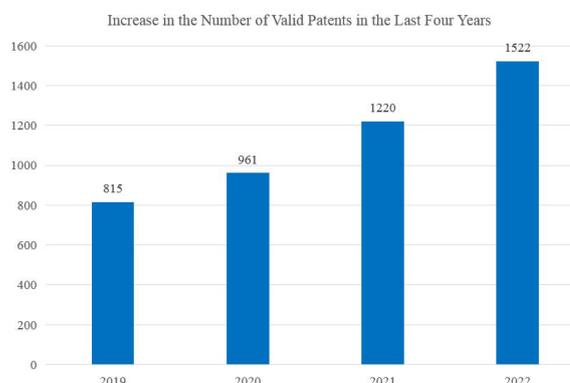
The Company has conducted cooperation at different levels with Simon Fraser University in Canada, Central South University, China Academy of Railway Sciences, Shanxi Road Traffic Research Institute, Stanford University, Gunma University, Kyushu University, Beijing Institute of Technology, and Beijing University of Chemical Technology.

Technical cooperation has also been carried out with research teams led by Academician Wang Qi from Sichuan University, Academician Qu Jinping from the South China University of Technology, Academician Chen Xiangsheng from Shenzhen University, Academician Xiao Xuwen from China State Construction Engineering Group Co., Ltd. (CSCEC), and Academician Hou Baorong from the Institute of Oceanology, Chinese Academy of Sciences.

Additionally, working together with eight colleges and universities, including Beijing University of Civil Engineering and Architecture, Beijing Institute of Graphic Communication, Harbin Institute of Technology, Chang’an University, North University of China, Beijing University of Technology, Jiangsu University, and Central South University, the Company has carried out open subject projects in terms of cement-based materials, rubber and plastic materials, asphalt

materials, polyurethane materials and functional composite waterproofing materials.

Basic research subjects in the industry: To promote sound industry development, resolve common technical issues faced by the industry step by step, and consolidate the foundation for the scientific and technological growth of the industry, Oriental Yuhong has made vigorous efforts to fulfil its responsibility for the industry by exploring basic research subjects in the industry. On 16 January 2023, four basic research projects undertaken by Oriental Yuhong passed the acceptance inspection. Among them, the result of the project “Research on the Durability of Polymer Self-adhesive Film Waterproofing Sheet Materials” led the world, and the projects “Evaluation of the Long-term Water-Resistant Reliability of Water-based Waterproof Coatings”, “Evaluation of the Durability of Polyurethane Waterproof Coatings”, and “Research on the Durability of Gelacry SR” achieved domestically leading results. These projects will advance the in-depth implementation of basic research, speed up the commercialisation of technological achievements, and improve the training of technical talent in the building waterproofing industry.



Patent achievements: As of 31 December 2022, the Group possessed 1,522 valid patents (including 425 invention patents, 942 utility model patents, and 155 design patents), including 12 overseas valid patents.

Examples of Research Innovation Achievements in 2022

No.	Project Name	Award Type	Prize
1	Key Technology for Highly Water-resistant Polymer Cement Waterproof Coatings and Application	Construction Material Science and Technology Award (Technological Progress) of CBMF & The Chinese Ceramic Society	Second Prize
2	Key Technology for Green, Low-carbon, and Multi-purpose Silane-modified Polymer Coatings and Development	Good Technology in China	Class-B Project Library
3	Key Technology for Green, Low-carbon, and Multi-purpose Silane-modified Polymer Coatings and Development	Building Waterproofing Science and Technology Awards: Technological Progress Prize	First Prize
4	Development and Application of key Technology for Green and Low-carbon Silane-modified Polymer Bond/Waterproofing Materials	Beijing Building Materials Science and Technology Award: Scientific Research Achievement	First Prize
5	Development and Application of Modified Silicone Building Sealant for Concrete Joints	Beijing Building Materials Science and Technology Award: Scientific Research Achievement	Second Prize

6	Self-adhesive Polymer Modified Bituminous Steam Trap Membrane for the Single-lay Roofing System	Beijing Building Materials Science and Technology Award: Technological Innovation	Second Prize
7	Anti-sagging Single-component Polyurethane Waterproof Coatings	Beijing Building Materials Science and Technology Award: Technological Innovation	Second Prize
8	Exposed Single-component Polyurethane Waterproof Coatings	Beijing Building Materials Science and Technology Award: Technological Innovation	Third Prize
9	GES-W308 Exposed Water-based Polyurethane Waterproof Coatings	Beijing Building Materials Science and Technology Award: Technological Innovation	Third Prize
10	Architectural Reflective Thermal Insulation Coatings	Beijing Building Materials Science and Technology Award: Technological Innovation	Third Prize

The Company rolled out the first biobased waterproof coating product in the industry: Yuhong Plant-based Waterproof Coating. It is a monomeric synthetic emulsion made from renewable plant resources, such as corn and sweet potatoes and through natural fermentation. According to the laboratory data, the components of each barrel of Yuhong Plant-based Waterproof Coating have 38% biobased content, which has been certified by the United States Department of Agriculture (USDA) as a biobased product.

In 2022, Alpina developed an ultra-environmental interior wall product certified by the new Blue Angel in Germany: Edel Wandfarbe wall paint. Blue Angel is believed to be one of the strictest environmental certifications in the world. By the requirements of Blue Angel, the result of the research on the key technology and production process for the formulation, and the German FREI VON environmental testing standards, the product is free of preservatives, solvents, plasticisers and harmful volatiles, further solidifying the Company's position in the ultra-environmental coating market.

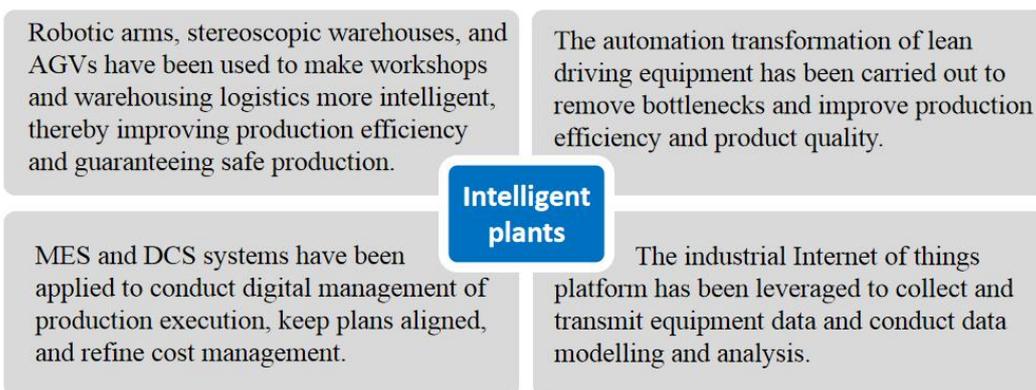
In December 2022, the result of the project “Development and Application of Key Technology for Compacted and Laid Integrated Roofing System That Enables Energy Saving, Heat Preservation, and Waterproofing” was certified by experts of the CBMF as domestically leading. This fabricated roofing system has high capabilities of waterproofing, drainage, thermal preservation, and wind resistance. It is also characterised by its high reliability, durability, and construction and repair efficiency. Moreover, the system can promote the overall improvement of the roofing system quality in the industry, drive the research on the fabricated construction of the roofing system in the waterproofing industry, and advance fabricated and low-carbon development of roofing systems.

(IV) Intelligent Manufacturing

Oriental Yuhong has built more than 52 manufacturing, R&D, and logistic bases throughout the country in order to constantly break through with technological innovation as the driver while fulfilling its commitment of “delivering

services to customers in regions within a 300-km radius within 24 hours”. By doing so, it can drive intelligent manufacturing and create new production and operations modes, thereby guaranteeing product and service quality.

Through the application of intelligent equipment and information-based development, Oriental Yuhong has achieved intelligent product control and quality monitoring as well as visual, integrated, and collaborative manufacturing. As a result, the Company will not only improve product quality and operational efficiency but also create greater social value.



Intelligent assembly lines: The Company has built more than 200 advanced assembly lines and introduced the modified bituminous assembly line from R&D in the US, the membrane assembly line from Boato in Italy, and production equipment from Krauss Maffei in Germany, thereby creating a strict line of defence for quality using sophisticated equipment and advanced instruments.

Intelligent warehousing system: It comprises a 24-metre-high reinforced concrete building of two storeys, automated stereoscopic warehouse racks,



stacking machines, a shuttle system, an automatic inbound and outbound transport system, an automatic control system, an information identification system, a computer supervision and control system, a computer management system, and other supplementary equipment. Industrial automation products, such as robotic arms, the KSEC TIMMS system, industrial unmanned routers, modular PLCs, the human-machine interface, industrial tablets, variable frequency drives, and pallet conveyors, work with interconnection technology. The fully intelligent warehousing system integrates computer operation, scheduling, counting, analysis, and management. It enables the automation of the whole process, ranging from labelling on the assembly line and scanning storage to finished product retrieval and from vehicle queuing to shipment tracking. Therefore, it requires only a handful of managers for the warehousing and delivery work of the entire production base.

Intelligent supervision: It supports data transmission among MES, WMS, and LIMS systems through MDM, thereby ensuring that the entire production process is traceable. Additionally, system tools are used for qualitative data analysis, achieving prevention and production control through information-based and digital means. Moreover, the full product supply chain management collaboration system is built to connect industrialisation, information technology, and industries. Production data (time, technical parameters, and operators) are fully collected to enable real-time production visualization and the management of the full life cycle of products. Intelligent systems are launched, such as those for machine station locating and checking the shipment of orders anytime and anywhere. Furthermore, a high degree of integration of the MES system and multiple systems enables all modules to be covered, including cross-region scheduling calculation, manufacturing execution control, quality management, and equipment management.

Example: “Lights-out Workshop” for Mortar and Coatings of Oriental Yuhong in Wuhu

The “lights-out workshop” well proves Oriental Yuhong’s strength in intelligent manufacturing. Automatic material feeding and computing systems of high precision ensure the “perfect” realisation of the formula. Additionally, packaging can be automatically completed with the TOM packaging machine, the German Haver rotating packaging system, the supporting bag feeding device, and the combined line. Moreover, transport tasks can be completed with automated forklifts and shuttle carts, enabling production to be conducted even when lights are out.

(V) Quality Control

Oriental Yuhong has deemed quality as its foundation. It has established a product quality supervision and management centre. The Company considers “compliant operations” as its basic principles and “process management” as its core, upholds the concept of “quality first”, and establishes good word-of-mouth through quality products and system services. The Company connects its full business chain, including R&D, procurement, production, inspection, sales, and construction and interconnects its technology, products, management, and services and creates a “Whole-Supply-Chain Management and Collaboration System for Unique Product Identity”. A uniform quality system covers the R&D of products, procurement of raw materials, production process, inspection and control of finished products, sales, and construction. Each product has a unique identity based on a QR code, so it can be traced throughout the whole lifecycle.

Oriental Yuhong has set up strict quality control procedures. On the one hand, all processes, ranging from the R&D of new products to mass production, will be reviewed and controlled. There are five levels of inspections for the process from the entry of raw materials into the factory to the delivery of finished products outside the factory, which guarantees that products are qualified. On the other hand, it has adopted the third-party supervision and management mode to control the quality of products of each factory vertically. Every year, the products of each factory are randomly inspected on an unscheduled basis to discover problems from the perspective of customers and find solutions and ways to improve.

Product standardisation	Method standardisation	Management standardisation
Based on satisfaction with national and industrial standards, the Company has formulated stricter internal control standards, with more than 1,000 such standards formed, and conducted unified management.	For the inspection items of all products, standardised operating instructions have been formulated to require all inspectors to inspect products according to the requirements.	All laboratories must be run according to the requirements of CNAS's laboratory management system. At present, seven laboratories have passed the certification of CNAS's laboratory management system.

Quality is the starting point of value and dignity. Oriental Yuhong considers the pursuit of excellent quality as the starting of all work, keeps enhancing its core technical competitiveness, and strictly controls quality, thereby better keeping pace with the development trend of economic globalisation, serving customers, and returning to society with quality products and services.

(VI) New and Dedicated Customer Services

Consumer Rights Protection

Most projects in the construction and building materials industry are invisible, enabling lawless merchants to use the loophole to produce counterfeit or nonconforming products to deceive consumers. To protect customers' rights and interests, Oriental Yuhong has set up the "Brand Rights Protection Department" as well as a tip-off hotline and a WeChat account. It has also provided customers with options for the anti-counterfeiting check, such as telephone inquiries and online inquiries through the official website. For the tip-off information obtained, Oriental Yuhong will make an analysis and arrange for special persons to investigate and take evidence. After searching for clues and verifying the evidence, it will help law enforcement authorities crack down on counterfeit products, thus protecting customers' lawful rights and interests.

For counterfeit products that fulfil the case filing requirements, Oriental Yuhong will resolutely require suspects to be held criminally accountable. It will strive for the maximum criminal liability imposed on the suspects and will not accept any form of compensation or understanding. In 2022, a total of 53 criminal cases were filed against counterfeiting, materials theft, and other illegal acts, with 110 persons arrested, 23 of whom were sentenced (14 were subject to serving sentences, and nine were on probation). A total of 34 counterfeiting places were uncovered, and 44 units of equipment and 11 sets of moulds for producing counterfeit products were sequestered, directly recouping economic losses of more than RMB300 million.

All employees participate in the fight against counterfeiting. All employees of the Company are required to actively report behaviour and incidents that involve counterfeiting, disruption of the market order, or damage to the Company's brands. In the field of market circulation, infringement cases are reported to the local market

supervision bureaus for administrative investigations. If the value of a case is large and the case meets the requirements for criminal case filing, it should be directly reported to the economic investigation department of the public security organ. With the assistance of law enforcement authorities, the origins of the goods will be traced, the market environment will be cleansed, and users and consumers will be reassured.

Case: Counterfeiting Campaign of the E-commerce Platform of Civil Construction Materials Group

In 2022, the e-commerce platform of Civil Construction Materials Group cracked down on counterfeit grout shops and manufacturing bases throughout the country, with the three largest gangs in Southern China (Changsha, Hunan Province), Eastern China (Jinhua, Zhejiang Province), and Northern China (Baoding, Hebei Province) uncovered. In the process, nearly 20 million illegal trademarks and logos for counterfeit grout manufacturing and sale and more than 10 million pieces of counterfeit grout produced and processed were sequestered, 70 suspects were arrested, and 20 counterfeiting places were closed. The cases were valued at nearly RMB300 million. Additionally, one of the principal offenders has been sentenced to fixed-term imprisonment. This has safeguarded the order of the market of products of Oriental Yuhong.

Better Service Experience

Faced with the upgraded consumer needs in the new consumption era, Oriental Yuhong has always upheld the “customer-oriented” service philosophy. Through technological innovation and data empowerment, the equal emphasis laid on products and services, and the removal of online and offline barriers, Oriental Yuhong has created new consumption scenarios in order to deliver better customer experiences.

Full Range of Products	Quick Response	Sincere Services
<p>The Company keeps launching new products by focusing on the development trend of the industry and actual user needs. In 2022, it rolled out more than 200 new products, including the PSD-520 pre-laying waterproof sheet material, “Beautiful Town” ultra-easy-to-apply colourful waterproof and moisture-proof slurry, plant-based waterproof coatings, Edel Wandfarbe wall paint, 520 Love+ series, 360 Odourless series, and CapaKinde paint. Additionally, it constantly optimised product structure to satisfy diverse consumer needs.</p>	<p>The Company has fulfilled its commitment of “delivering services to customers in regions within a 300-km radius within 24 hours” relying on its over 52 manufacturing, R&D, and logistic bases throughout the country. Additionally, it has continued to add weight to the customer end and expand the coverage of online channels by developing more dealers and building more outlets. It has also been exploring new business forms and retail online. Yuhong Home Delivery Technology Service has developed a “15-min Service Ecosystem”.</p>	<p>The Company persists in listening to customers’ voices. It provided consultant services for approximately 220,000 customers in the year. The 6 x 12-hour mechanism is adopted for handling Customers’ consultation. The 7 x 24-hour mechanism is adopted for handling customers’ complaints. These efforts have helped the Company earn a customer satisfaction score of 93.3, the same as that of last year. Additionally, the Company achieved a loyalty score of 94.2, higher than last year, and a complaint rate of 8.2%, lower than in 2021.</p>

Case: A Strategic Agreement was Signed between Oriental Yuhong and JD.com.

In July 2022, A strategic agreement was signed between Oriental Yuhong and JD.com. With JD.com’s years of strengths in warehousing and distribution logistics, home decoration, online and offline channels, and supply chain systems and Oriental Yuhong’s advantages in construction and building materials, building renovation, and home delivery services, both sides worked together to build an ecosystem that features full “online + offline” channels and integrates “product + supply chain + promise delivery services” in home decoration materials and building renovation industries.



Case: Oriental Yuhong Delivered an Excellent Performance During the 6.18 Online Shopping Festival, with the Sales of Several Products Ranking First.

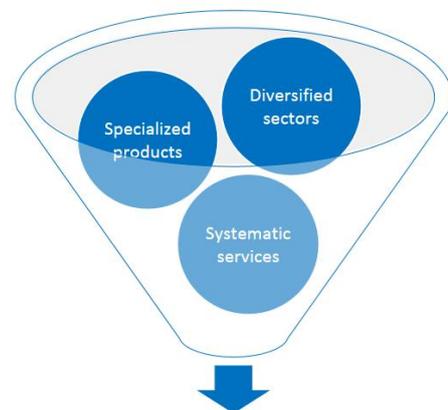
During the 618 online shopping festival in 2022, Oriental Yuhong’s waterproof products and other products on various e-commerce platforms recorded the best sales. Specifically, a total of more than 100,000 barrels of waterproof coatings and 380,000 pieces of grout were sold on JD.com, Tmall, and PDD. Concurrently, Alpina’s full-time rate of return on investment (ROI) rose by 40%, and the retail sales of Caparol’s new product, Freedom Paint, increased by 300% during the shopping festival. Additionally, concerning the Alpina + Caparol shops, the total number of visitors climbed by 1000%, and the customer service personnel members received more than 130,000 customers.

(VII) Achieving Mutual Creation, Mutual Sharing and Mutual Benefit with Partners

Since its establishment, Oriental Yuhong has always considered the long-termism as its value anchor, and continuously deepened its value as a building material system service provider. Driven by the philosophy of “mutual creation, mutual sharing and mutual benefit”, it strives to be the invisible champion in all segments of building materials on the basis of “platform + creator” operational and management model, and provides strong support for the sustainable development of society and industry.

The development of Oriental Yuhong cannot be achieved without thousands of business partners pursuing the common goal with unity in action. With cohesiveness and implementation ability featuring “might from a small hole and benefits from one

Mutual creation, mutual sharing and mutual benefit



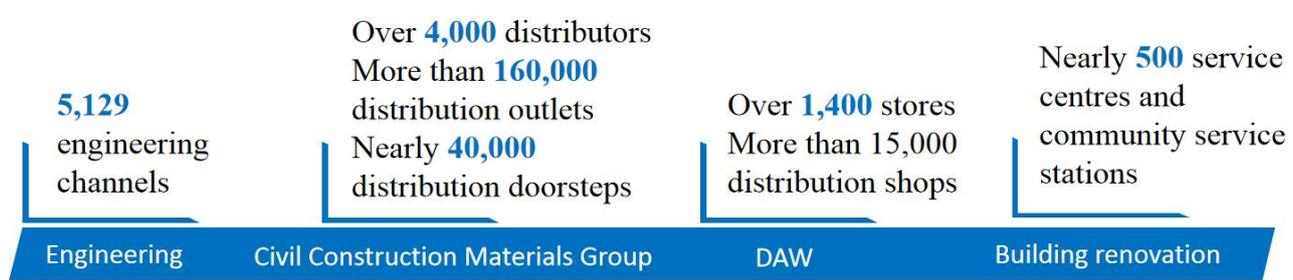
Comprehensively empower partners

source”, supported by diversified sectors, specialised products and systematic services, Oriental Yuhong has always adhered to comprehensively empower its partners to achieve aggregate effect, making co-creation and co-sharing more vigorous and valuable, offering a platform for thoughtful and innovative employees and distributors to realize their self-worth, and providing resources for the development of creators, so as to achieve mutual sharing and mutual success.

Oriental Yuhong has always adhered to cooperate with partners based on sincerity, sharing weal and woe, interdependence and common interests. With the kind incentive of “dedicated employees as our foundation”, more and more excellent partners have joined the big family of Oriental Yuhong.

Example: Civil Construction Materials continued to Cultivate Channels with Steady Growth and Quality Focus

The Civil Construction Group focused on blank markets, increased the national city coverage, supported professional customers to become bigger and stronger; it also continued to expand sales outlets while focusing on the quality of channel operations, and stabilized the traditional strong channels through the network grading, strengthening visits and other initiatives to ensure the continued healthy and rapid development of channels. It also strengthened channel information management and used information technology platform to achieve online management of sales network of business personnel to create a real-time and efficient + convenient review of business work mode.



(VIII) Building Nationally, Growing Globally

Oriental Yuhong has cultivated overseas markets for many years since 2005, with deep accumulation of nearly 20 years. Many of its products have been certified by EC1PLUS (Germany), A+ (France), CE (EU), GOST (Russia), and CRRC (the United States). HDPE products have successively obtained certificates of patents for inventions issued by Australia, the United States, Singapore, and the European Patent Office (EPO). In addition, it has been reported by many overseas media, including, *YAHOO! Finance*, *Bloomberg*, *Wall Street Journal*, *Barron's*, *AP NEWS [The Associated Press]*, thus continuously raising its reputation in international markets.

In recent two years, with the reshaping of global competitive pattern, Oriental Yuhong has accelerated its exploration of overseas markets, continuously upgraded localized strategy and created products and services featuring specialization and localization. In particular, it has deeply cultivated in Asia, Africa and other countries

and regions under the Belt and Road Initiative, constantly enhancing brand effect and developing certification and patent licensing of overseas products.



As of the End of 2022

Oriental Yuhong has set up branches or offices in such areas as Malaysia and Canada and in succession, with key corporation projects including the Marebaya Port-Simandou Mine Railway in Guinea, the Mombasa-Nairobi Standard Gauge Railway in Kenya, the Venezuela Railway, the Lagos Light Rail Blue Line in Nigeria, the Sri Lanka Railway, the Salah-Aldeen Power Station in Iraq, the Telaga Waja Hydropower Station in Indonesia, the China-Maldives Friendship Bridge in Maldives and the Ethiopia Railway. The Company has contributed to the connectivity of facilities of countries and regions along the Belt and Road with high-quality Chinese construction materials and services.



Example: Oriental Yuhong was Successfully Selected as “2022 Belt and Road Initiative Green Supply Chain Case”.

In 10 January 2023, the All-China Environment Federation hosted the Founding Conference of the Committee of the Belt and Road Economic and Environmental Cooperation Forum, aiming to further enhance its international cooperation of ecological environmental protection, promoting collaboration in key areas of green development under the Belt and Road Initiative in a coordinated manner, and telling China’s stories well in terms of improving the green development of the Belt and Road together. Oriental Yuhong was successfully selected as “2022 Belt and Road Initiative Green Supply Chain Case”.



Oriental Yuhong has adhered to the co-development of projects and channels, and gradually formulated a unique overseas business system, providing integrated services from project initiation to implementation, matching product performance with specification and combining Chinese standards with various standards from other countries, so as to fully meet the specification demands of projects.

- Initial phase: Considering applicable solutions in terms of topography, climate and environment
- Transportation process: Ensuring safe arrival of goods overseas through whole process participation
- Project construction: Providing on-site technical support in accordance with local situation

Oriental Yuhong has gradually transformed from a manufacturer and material supplier to a one-stop service provider integrating materials and services, assisting the turnkey to present multiple excellent works. The following are some of the international projects undertaken by Oriental Yuhong in 2022:



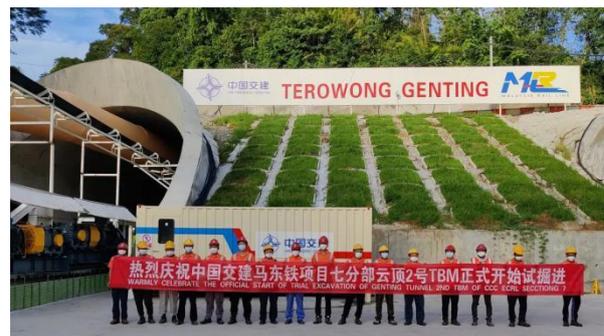
Pont de Cocody in Cote d'Ivoire

The Pont de Cocody in Cote d'Ivoire is the largest cable-stayed bridge in West Africa. It is one of the landmarks of the business centre of Cocody Bay, which the Cote d'Ivoire government is committed to build. Products applied in the project: Road and bridge waterproof sheet material.



The Eastern Coastal Railway Project in Malaysia

It is an important project for transportation infrastructure in the plan of Malaysia's East Coast Economic Region. Once it is completed, it will become the east-west railway trunk of peninsular Malaysia. Products applied in the project: Waterproof coating, geotextile, etc.



Bac Giang Quang Chau Foxconn Plants Project in Vietnam

Quang Chau Industrial Park is planned, invested and developed in line with the model of modern construction complex, including industrial area,

Marebaya Port-Simandou Mine Railway in Guinea

It is the first east-west railway in Guinea, with a total length of about 553 kilometres. It comprises 169 bridges with a length of 69.9 kilometres and 4

urban area and public service area. Products applied in the project: SBS modified bituminous waterproof coating

tunnels with a length of 27.6 kilometres. Products applied in the project: Waterproof sheet material, waterproof coating, non-woven fabrics and water stop.

With excellent construction and engineering quality, Oriental Yuhong has also been recognized overseas. The following are some of the honours awarded in overseas markets in 2022:

Overseas recognition	Royal Mosque Project in Selangor, Malaysia	The TPO maintenance sheet material has been approved by the Ministry of Works of Malaysia and included in the list of maintenance materials for mosques in Malaysia.
	Projects such as the Burkina Faso Hospital, the new premises of the Mission of China to the African Union, and the National Assembly Building in Cameroon	Oriental Yuhong was awarded as the <i>Core Supplier</i> of international engineering of Chinese-funded urban construction in 2021
	China Association of International Engineering Consultants and China International Engineering Procurement Alliance issued the approved measures, and the equipment and services of members of the alliance is waiting for bidding and procurement	Preferred filing unit



V. Environment: Green-Oriented

Oriental Yuhong has adhered to build itself into an enterprise that is resource-saving and environmentally friendly. It maintains green management in structure design, clings to high-standard green requirements in the supply chain and keeps the clean and green concept in mind, providing green services with standardized and intelligent work in construction sites, making green buildings with various green technological results and contributing to achieving the climate goal of “peak carbon dioxide emissions before 2030 and carbon neutrality before 2060” with practices.

With the production and operation centre at the centre of its driving force, the Company has promoted certification as green plants, and established and improved the management objectives and assessment mechanisms regarding safety and environmental protection, energy conservation and emission reduction, and social responsibility. Based on the green plant standards of the MIIT, certification of the three ISO systems, and other standards, the Company has actively made efforts in the management of safety, environmental protection, occupational health, and energy in its production, R&D and logistics bases. The Company seized the opportunity of national environmental performance grading for self-improvement. All of its plants in national key environmental areas met Grade A standards, and environmental protection facilities in new plants were all installed following the Grade A standards.

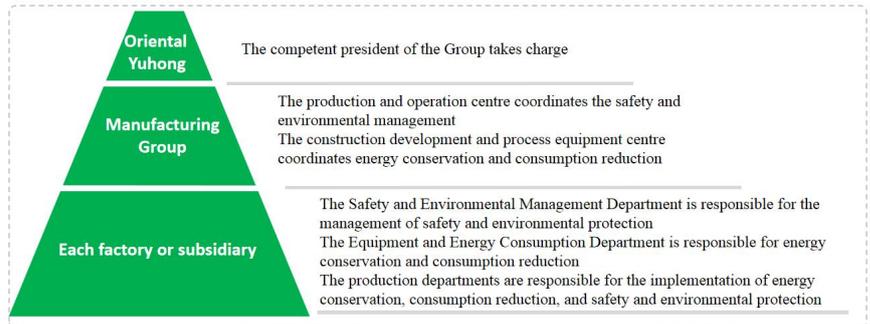


Oriental Yuhong has established and improved the environmental management system, carried out publicity and education activities about environmental protection, promoted environmental responsibilities related to the supply chain, and continuously regarded “green production and low-carbon environmental protection” as the management direction, and advanced routine, systematic and standardized environmental management. By doing so, we further quantified the environmental management performance and specifically evaluated the environmental impact.

(I) Structure Design

The Company has established a standardized environmental protection system which comprises the Group, centres, and factories/subsidiaries, and conducted management based on the principle of local area management and three-level management. Institutions at different tiers have adopted the system where chief executives take charge. The level-1 management departments are managed by the Group, with a competent president taking charge. The president of the manufacturing group is responsible for the level-2 management departments. In terms of safety

and environmental management, the responsible department is the production and operation centre. In addition, the construction development and process equipment centre is responsible for the management of energy conservation and consumption reduction. The general manager of each



factory/branch/subsidiary is responsible for the level-3 management departments. The Safety and Environmental Management Department is responsible for the management of safety and environmental protection. As for the energy conservation and consumption reduction, the Equipment and Energy Consumption Department shoulders such responsibility. The production departments are responsible for the implementation of energy conservation, consumption reduction and safety and environmental protection.

Oriental Yuhong has established and improved the GB/T 24001-2016 environmental management system, and developed relevant plans and other environmental management policies for implementation, inspection and improvement. The Company carried out publicity and education activities about environmental protection, promoted environmental responsibilities related to the supply chain, continuously regarded “green production and low-carbon environmental protection” as the management direction, and advanced routine, systematic and standardized environmental management. By doing so, we further quantified the environmental management performance and specifically evaluated the environmental impact.

The Company continuously increased its investment in environmental protection and strengthened review to ensure 100% environmental protection acceptance for new renovation and expansion projects of all factories and 100% standardized emissions of facilities for environmental pollution control. An in-depth exploration of green management models was conducted. The Group improved the organization and management system of energy conservation, effectively consolidated the management foundation of energy conservation and emission reduction, and adhered to the green, environmental and low-carbon concepts throughout the whole process of R&D, production and application.

5	16	14	6
Ministry of Industry and Information Technology Green Factory	Certifications of the three ISO systems of quality/environment/occupational health and safety	Certifications of energy management system	Have passed the A-level environmental performance evaluation

Certifications/Evaluation Data Related to the Production, R&D and Logistics Bases of Oriental Yuhong

(II) Building of Green Supply Chain

Oriental Yuhong has established an efficient supply chain from such aspects as corporate development, procurement management model, supplier performance and strategic supplier development, and promoted the continuous update of industry technologies and the continuous improvement of suppliers in multiple dimensions through joint development, thus earning the respect of peers and customers and becoming partners with shared values. Oriental Yuhong has incorporated the principles of environmental protection into its mechanism for supplier management. Starting from the source of raw material extraction, production process, final consumption and other processes, Oriental Yuhong has formulated actionable green procurement standards and green procurement management programs that cover testing, certification, and implementation. This measure aims to minimize the adverse impact on the environment directly or indirectly, boost resource efficiency, and provide end consumers with green, healthy and eco-friendly products.

The sunshine and centralized purchasing is a major purchasing mode of Oriental Yuhong. It remains committed to the philosophy of globalization, information-based, low-carbon, and environmental protection and works together with the upstream customers to jointly promote the development of the industry. Oriental Yuhong adopts the supplier access certification system to select and manage suppliers. It takes the incoming inspection process, procurement management process, warehouse management process, production management process, inspection process before delivery, quality management process, and technology management process as the main standards



of site certification of the supplier to ensure the quality of supplied products. The Company introduces a random check to control the supplier quality of key materials from the perspectives of technical research and development, process control, and warehousing logistics. It emphasizes supplier management and performance appraisal and practically improves the competitiveness of the supply chain by taking results as the orientation.

Oriental Yuhong adheres to the building of green supply chain. When procuring raw materials, it prioritizes the use of products with low-carbon production processes. Regarding consumer goods such as office supplies, it prefers products that are easy to recycle, in an effort to ease the environmental loads of the industry chain via green procurement.

The Company has established more stringent procurement grading standards and management process based on national standards. Aside from the product assurance approach of requiring raw material suppliers to provide both products that meet regulations and third-party testing, it also requires such suppliers to offer internationally-recognized chemical safety and quality instructions to take precautions from the source.

In line with the concept of equality and win-win cooperation, Oriental Yuhong carried out in-depth cooperation with partners, maintained a stable and efficient supply chain, continually promoted the concept of corporate social responsibility to supplier partners, actively expanded the development of the Company, its partners and the industry to jointly cope with challenges of environments and society of various types. With brand responsibility as its philosophy, Oriental Yuhong provided customers with the quality services of whole-process, multi-dimensions, and deep communication.

In 2022, Oriental Yuhong carried out technical cooperation with many domestic and international famous enterprises, such as Wanhua Chemical, CNPC, BASF, Exxon Mobil, and LyondellBasell Industries. They worked closely from multiple dimensions, including, technologies, markets, products, and construction processes, and made efforts to create high-quality products and system solutions. It continuously carried out technological innovations to promote the sustainable development of the industry.

(III) Green Production - Safety

Safety is basic support of the Company’s operation and the top priority of the Company. Following the principle of “safety first, prevention first”, Oriental Yuhong implemented the safety responsibility policy at all levels to prevent any accident. It has fostered awareness of “all employees participating in safety management”, improved its safety management system, established safety policies, organized safety education and training, and improved safety awareness and crisis management skills to ensure stable production and normal operation of the Company.

1. Safety Management System

In accordance with national safety monitoring & management laws and regulations, Oriental Yuhong strengthened safety system construction and revised and improved some safety management systems, including the *Safe Production Responsibility System*, *Safety Education Management System*, *Safety Inspection Management System*, *Safe Production Reward & Punishment System*, and *Safety Management System for Hazardous Chemicals*, etc. It also elaborated the safety responsibility.

Safety Management Policies in Production and Logistics Bases of Oriental Yuhong

Safety production responsibility system	Firework management system	Inspection system for potential safety hazards
Safety education management system	Management system for occupational health	Management measures for honesty and self-discipline
Safe production and inspection system	Management system for reporting and dealing with workplace accidents	Management system for entering and leaving plants of Oriental Yuhong
Safe production reward and punishment system	Management system for fire safety	Coordinated management system for safety in plants
Management system for labour protection supplies	Management system for safe use of electricity	Management measures for limited working space

Safety management system for hazardous chemicals	Emergency management system for fire accidents	Management regulations on safety penalties in production and operation centres
Safety management system for equipment	Management system for emergency response to chemical leakage	Management measures for dealing with work accidents in production and operation centres
Safety management system for special operation	Safety management system for external construction operators	Management regulations on assessment of safety credit reward points of employees in production and operation centres
Safety management system for high-place operation	Safety management system for trainees, trainers and interns	Safety management system for employee transportation
Management system for smoking ban	Safety management system for forklift	Regulations on wearing safety helmets
Safety management system for cargo transportation in plants	Management system for changes	Safety management system for electrostatic and anti-explosion

2. Safety Production Site

Oriental Yuhong carried out a safe production responsibility system, which covered the whole network of construction and staff, to ensure the fulfilment of safe production responsibility. It also completely carried out safe production standardization and HES safe production system.

The Company set up a specialized safety management department in its main production, R&D and logistics bases and allocated dedicated personnel for safety management. It also established a consolidated safety management team, with safety management directors of different factories as team members and production & operation directors as the leader. The team was responsible for the safety management of different factories. A long-term coordination mechanism was set up and safety information and resources were shared. Members worked together to ensure the accomplishment of the safe production objective of the whole production & operation system.

Input Details for Safety Production in Main Production Bases of Oriental Yuhong

No.	Category	Item	Amount (Unit: RMB' 0,000)
1	The upgrading, reconstruction, maintenance and inspection of equipment and facilities	The procurement, maintenance, repair and inspection of fire-fighting equipment	996.7674
2		Lightning protection and anti-static maintenance, repair and testing	38.7725
3		The maintenance, repair, testing and inspection expenses of special equipment	214.616
4		Expenditure on safety signs & warnings and publicity	62.56131
5		Safety protection upgrading, reconstruction and maintenance expenses of mechanical equipment	105.139
6		Upgrading, reconstruction and maintenance expenses of fall prevention facilities in high-place operation	68.96
7		Upgrading, reconstruction and maintenance expenses of safety facilities in hoisting operation	22.42

8		Upgrading, reconstruction and maintenance expenses of safety facilities in inflammable and explosive places	9.77
9		The expenditure on the improvement, reconstruction, and maintenance of other safety equipment and facilities	220.88
10	Emergency rescue	Expenditure on equipping and maintaining emergency rescue equipment and on emergency drills	39.05
11	Rectification against hidden trouble	Expenditure on evaluating, monitoring and rectifying major sources of danger and latent danger of accidents	135.25
12	Evaluation and consultation	Expenditure on production safety inspection, evaluation, consultation and standardization	201.75
13	Prevention and control of occupational diseases	Expenditure on provision and renewal of safety protection articles for on-site operators	414.55949
14		Expenses related to physical examination of occupational diseases and occupational hazard factors testing	82.3888
15	Training and education	Expenditure on publicity, education and training of production safety	29.27
16	Four “News”	Expenditure on promotion and application of new technologies, new standards, new processes and new equipment that are suitable for safety production	394.7
17	Safety culture	Expenditure on enhancing the Company’s total participation in safety culture and safety incentives	272.623
18	Others	Other expenditures directly related to production safety	203.979
Total			3513.4565

3. Product Safety

To ensure the safety of products, Oriental Yuhong has taken the following measures to strictly control product quality and ensure product safety.

1) The Company has passed the certification for quality management system, environmental management system, occupational health and safety management system, measurement management system, CE, CTC, CRCC, Chinese environmental labelling, etc. It strengthened and improved the operation of management systems. Its products meet safety standards stipulated by domestic and international rules and regulations, and hidden safety risks for customers and society are eliminated.

2) Raw materials, such as liquid asphalt and emulsion, are stored in sealed tanks and transported with sealed pipes, thus ensuring air insulation. In the product preparation process, safety protection measures shall be fulfilled to avoid hidden risks that the product may bring to workers in the workshop.

3) Product packages meet safety standards and have no leakage risk. Safety technology instructions are posted on products to inform customers of safe storage, safe transport, safe application procedures, safety precautions, and emergency treatment measures.

4) The production, storage, transportation, sales, and application of dangerous products shall be carried out in accordance with legal safety precaution measures, to ensure the safety of the enterprise, employees, the public, and society.

5) Product quality and safety are taken care of by the Kanban pull system. The QR code is applied for the management of output and input of the warehouse to achieve the first-in-first-out of materials and improve the efficiency of material turnover. Product quality tracing is made in the whole process.

6) The Company has established a product tracing system, which gives each product an identity code and enables all-around traceability to the processes in the product life cycle. By scanning the identity code of the product to query the information of each specific product, such as its production workshop, production team, the person in charge of research and development of the product formulation process, and product packaging and product use cycle, to monitor the cycle process of each product and prevent the application of counterfeit and shoddy products in the production to some extent.

4. Social Security

As an important social organism, enterprises must focus on social safety for the normal operation of economic and social activities. The following is the implementation of the relevant measures to ensure the social safety of Oriental Yuhong:

1) The whole company strictly promoted the *Basic Rules of Oriental Yuhong*, which explicitly stipulates that the Company abides by business norms, ethical guidelines, all laws and regulations, and respects social customs and religious beliefs;

2) The Company clarified the responsibility of the incumbents for the safe construction of the society and community, and strictly prohibited any behaviour endangering public safety;

3) The Company strengthened the education of public safety for incumbents, including prohibiting illegal entertainment and assembly activities, complying with traffic safety regulations during the commute, ensuring the safety of driving, and avoiding causing adverse effects on the public;

4) The Company increased the investment in environmental protection of the plant, invested a lot of human and material resources in the treatment of pollutants, strictly controlled the discharge of pollutants and eliminated the environmental impact on the surrounding communities;

5) As a corporate citizen, Oriental Yuhong constantly strengthened social safety measures. The Company organized interactive safety and fire drills, conducted fire emergency and rescue drills for employees, issued first aid manuals to employees, publicized emergency rescue knowledge, and built a safety atmosphere of “everyone pays attention to firefighting and everyone participates in firefighting”;

6) The Company organized lectures on anti-terrorism and traffic safety to raise the awareness of all employees on anti-terrorism and traffic safety.

(IV) Green Production - Environmental Protection

1. Policies and Industry Standards for Environmental Protection

The following standards are strictly applied to all pollutant emissions of Oriental Yuhong. If local standards are stricter than national ones, the former shall prevail. All plants complied with the guidelines, standards and requirements of the *Technical Specification for Application and Issuance of Emission Permit-General Part* (HJ942-2018) issued and implemented by the Ministry of Ecology and Environment on 8 February 2020. The Company performed stringent self-inspection and review in all respects including basic production facilities, product output, pollution processes, treatment facilities, permitted emission levels of major pollutants, self-monitoring, and ledgers and records of environmental management, and all plants obtained the national emission permits.

Emission of Waste Gas	<i>Integrated Emission Standard of Air Pollutants</i> (GB16297-1996) is applied to non-fugitive emission of waste gas in the sheet material workshops (emission concentrations of non-methane hydrocarbons, benzo(a)pyrene, asphalt fumes and particulate matters shall not exceed 120 mg/m ³ , 0.3 mg/m ³ , 40 mg/m ³ and 120 mg/m ³ , respectively)
	The standard limit set out in the <i>Emission Standard of Air Pollutants for Cement Industry</i> (GB4915-2013) is applied to non-fugitive emission of waste gas in the mortar workshops (emission concentrations of particulate matters shall not exceed 10 mg/m ³)
	The standards specified in the <i>Integrated Emission Standard of Air Pollutants</i> (GB16297-1996) are applied to the fugitive emission of non-methane hydrocarbons and particulate matters at the boundary (emission concentrations of particulate matters and non-methane hydrocarbons shall not exceed 1.0 mg/m ³ and 4.0 mg/m ³ , respectively)
	The special emission limits for air pollutants stated in the <i>Emission Standard of Air Pollutants for Boiler</i> (GB13271-2014) are applied to non-fugitive emissions of the gas-fired boilers (emission concentrations of nitrogen oxides, sulphur oxides and particulate matters shall not exceed 150 mg/m ³ , 50 mg/m ³ and 20 mg/m ³ , respectively)
Sewage Discharge	The <i>Integrated Wastewater Discharge Standard</i> (GB8978-1996) is applied to sewage discharge. The standard is not lower than the Class III discharge standard: PH:6-9; BOD, COD, ammonia nitrogen and suspended solids shall not exceed 300 mg/L, 500 mg/L, 45 mg/L and 400 mg/L, respectively
Noise Emission	Class 3 standard stated in the <i>Emission Standard for Industrial Enterprises Noise at Boundary</i> (GB12348--2008) is applied to noise emission (noise limits for day time and night time are 65 decibels and 55 decibels, respectively)
Solid Waste	The <i>Standards for Pollution Control on the Storage and Disposal Site for General Industrial Solid Wastes</i> (GB18599-2001) is applied to general solid wastes
	The <i>Standard for Pollution Control on Hazardous Waste Storage</i> (GB18597-2001) is applied to temporary storage of hazardous solid wastes

Canteen Fumes

The standard limit stated in the *Emission Standard of Cooking Fume (Trial)* (GB18483-2001) is applied to canteen fumes (emission concentration of fumes shall not exceed 2.0 mg/m³)

2. Investment in Environmental Protection

Producers must be responsible for the waste caused in the production. In accordance with this principle, Oriental Yuhong carried out environmental evaluations, increased environmental investment, unified production site management, and strengthened control and treatment of pollutants and wastes, to reduce

the influence on the community and surrounding ecological environment. The main investment in environmental protection exceeded RMB73,541,600 in 2022, up by 17.74% over the previous year.



Statement on Oriental Yuhong’s Main Investment in Environmental Protection

No.	Category	Item	Amount (Unit: RMB’ 0,000)
1	Evaluation, consulting and testing	Expenses for evaluation, consulting and testing related to environmental protection	271.0918
2	Solid waste	Expenses for storage, transfer and disposal of general solid waste and hazardous waste	657.2811
3	Air	Particulate matters treatment (treatment of waste gas from coatings and powders, mortar, gypsum putty powder and other production lines)	320.78
4		VOC treatment (coatings, polymer and other treatment facilities)	448.3
5		Asphalt fumes treatment (investment in environmental protection facilities for asphalt-related production lines)	2,067.9
6		Treatment of waste gas from boilers	40.05
7		Other investments in environmental protection facilities	164.74
8	Water	Treatment of domestic and industrial wastewater	1,166.795333
9	Noise	Noise reduction devices	14.5
10	Expenses for reconstruction of energy conservation	Expenses for projects related to energy conservation and emission reduction, consumption reduction and PV (Unit: RMB’0,000)	1,459.6

	and emission reduction		
11	Others	Greening	317.554
12		Emergency response	24.1
13		Investment in technology and engineering measures for resource utilization and reduction of hazardous waste	14.9
14		Investment in technology and engineering measures for eliminating emissions of air and wastewater pollutants	279.2
15		Other environmental protection-related investment	107.37
Total			7,354.162333

3. Energy Conservation

Oriental Yuhong carried out 5S management and lean production continuously in different production, research and development (“R&D”) and logistics bases. Through rectification, production sites became clean and orderly, and production processes became safe and highly efficient. At the same time, the Company strengthened system management, to ensure standard and scientific management, and improve the operation efficiency of the system.

Case: Energy Conservation Transformation Heat Conduction Oil Furnace

The processes that use heat in the production line adopt heating power energy-saving measures to improve the utilization of heat energy and thus reduce energy consumption. The device for melting asphalt by warming up heat conduction oil is to add heating coils filled with heat conduction oil to the outer wall of the original asphalt melting vessel. With three layers of heating coils fixed inside, asphalt is heated and melted by heat conduction oil, saving 188tce of gas per year.

Other Major Energy Consumption and Emission Indicators of Oriental Yuhong

No.	Energy Consumption	Unit	Consumption in 2022
1	Electricity purchased	kW·h	413,608,297.6
2	PV power generation amount	kW·h	9,275,560
3	Natural gas	m ³	60,657,409
4	Liquefied gas	kg	771.435
5	Liquefied petroleum gas	kg	3,885
6	Gas oil	kg	497,677.86
7	Heating steam purchased	kg	19,672,410.56
8	Fresh water (tap water)	t	1,333,710.87
9	Acetylene	m ³	4,526.7
10	Coal	t	42,937.47

Carbon Emission Data of Oriental Yuhong (Scope I and Scope II)

Unit (tco2e)	Scope I	62,048.85391	Direct discharge from sources of greenhouse gas emissions owned or controlled by Oriental Yuhong
	Scope II	243,692.0388	Indirect greenhouse gas emissions from electricity/heat purchased

4. Emission Reduction

The Company vigorously promoted the use of advanced pollutant treatment processes and advanced treatment facilities such as RTOs in its production, R&D and logistics bases to treat exhaust gas arising from bituminous waterproof sheet materials, bituminous coatings and others. Compared with the traditional electrostatic dust removal and alkaline cleaning processes, the advanced processes reduced more than 50% of the PM emissions, nonmethane hydrocarbon emissions and odour emissions, and VOCs emission treatment efficiency could reach up to 95%. Meanwhile, the Company carried out the energy-saving transformation of air compressors to further improve the energy efficiency level of air compressors in its plants. Moreover, the Company reduced the energy consumption of appliances and equipment with huge electricity consumption. According to the standards of the Hefei Institute of Mechanical and Electrical Research, the power-to-weight ratio of innovative energy-saving air compressors was measured, showing that the air compressors could save more than 20% of energy.

No.	Type	Unit	2022
1	COD emission	t	20.6
2	VOCs emission	t	37.8303
3	Sewage discharge volume	m ³	294,867.34
4	General solid waste output	t	18,296.482
5	Hazardous waste output	t	2,008.7574

5. Clean Energy

Oriental Yuhong actively promotes the application of clean energies and conducts distributed PV power generation and electricity storage projects more vigorously in its production, R&D and logistics bases. The Company launched the project of roofing PV power stations. The phase-I project included 16 production, R&D and logistics bases of Oriental Yuhong with a total installed capacity of approximately 48.6MW. The cumulative power generation in 2022 was 9,275,560 kW·h, equivalent to an annual reduction in combustion of standard coals of approximately 1,204.9 tons and CO² emissions of nearly 5,416 tons. [The *General Rules for Calculating Comprehensive Energy Consumption (GB/T2589-202)* was referenced with the coefficient of 0.1299kgce/kW·h adopted, while the *Accounting Method and Reporting Guide for Corporate Greenhouse Gas Emissions* arising from *Power Generation Facilities (Revised Version 2021)* was referenced with national mean used to simplify the calculation and the coefficient of 0.5839tCO₂/MWh adopted]

The phase II project was officially initiated in February 2022, which will cover 12 production, R&D, and logistics bases of Oriental Yuhong. The estimated total installed capacity is approximately 45MW. In the future, Oriental Yuhong will earnestly drive energy-saving projects, such as PV power generation, low-temperature operation of heat conduction oil, solar heating, and boiler/air compressor waste heat reuse.

Case: Roofing PV Power Stations of Oriental Yuhong & DAW Hangzhou's Production, R&D and Logistics Bases

On 12 August, Oriental Yuhong launched its E-FACTORY experience tour with the theme of “Sustainable Future with Carbon” in Jiande, a “Global Green City” and “National Garden City”. The Company together with the guests witnessed the completion ceremony of PV power stations of Oriental Yuhong & DAW Hangzhou's production, R&D and logistics bases. Two of these plants' PV power stations, with a total installed capacity of about 6MW, are expected to bring in 5.94 million kW·h of clean energy every year.



6. Carbon Dioxide Consumption

Fuda, a subsidiary of Oriental Yuhong, signed the *Contract Concerning Extruded Polystyrene HCFC Phase-out Project* with the Foreign Environmental Cooperation Centre, Ministry of Ecology and Environment. It has completed the general technical transformation of replacing HCFC foaming with CO² foaming, thus making products more environmental-friendly, and passed the acceptance of the Ministry of Ecology and Environment. In 2017, the United Nations awarded the certificate of honour for “valuable contributions and effective in protecting the ozone layer”. Fuda adopted CO² as raw material for a foaming agent to produce high-performance and environmental-friendly XPS boards, and directly consumed around 371.81 tons of CO² in 2022, growing rapidly at an annual rate of 35% to 45%. The environmental-friendly foaming agent and flame-retardant technology system adopted by Fuda produces substantial environmental benefits to reductions in greenhouse gases, making it a feasible technical option for realizing the carbon peaking and carbon neutrality goals.

(v) Green and Intelligent Services

Smart construction is the only route for improving the quality of industrial development and transforming the labour-intensive production mode into a technology-intensive production mode. In-depth promotion of the smart construction and building industrialization synergistic development, cultivating technology-enabled information-based intelligent construction techniques, is the way to promote high-quality development of Oriental Yuhong.

Oriental Yuhong's focus is on the development of innovative technologies for the smart construction, and it has continued to promote intelligent upgrading of the industry through platform advantages and integration of science and innovation resources. In 2018, the Company laid out the field of intelligent equipment and took "standardised construction, intelligent equipment and specialised services" as the guide to shape new advantages for high-quality development. Up to now, in the field of intelligent equipment, it has accumulated more than 130 valid patents (including 32 invention patents) and launched more than 20 models of intelligent equipment, such as Totterman JCJR-100, Rider JCJR-10, Hongxiang 895 and Hongxuanfeng, etc. The service covers more than 10 provinces in China and has been well applied in many large-scale engineering projects.



Example: The Specialized Puncture Resistance Tester for Polymer Self-Adhesive Film Waterproofing Sheet Materials

It is like bringing a laboratory to project sites and customers, enabling customers to understand the test item more directly and vividly. The tester has four characteristics: The procedures of the tester are identical to the test methods specified in the national standard. It has been calibrated by CTI, an authoritative testing institution, to ensure accuracy. It only takes five minutes from cutting test-piece to printing out test results. The tester is compact and light that test can be done anytime, anywhere. It is a fully automatic mode, with a touch screen.



Case: "Hongtan" Visualisation System

Through AI artificial intelligence recognition, project management can achieve a comprehensive inspection of the construction site reality and 24-hour real-time supervision to further regulate the project safety behaviour, ensure "highlighted safety, full coverage, zero omission, strict implementation, and quality assurance".



VI. Community: Taking Responsibility, Harmony and Upward

Mobility

(I) Moving Forward with Employees

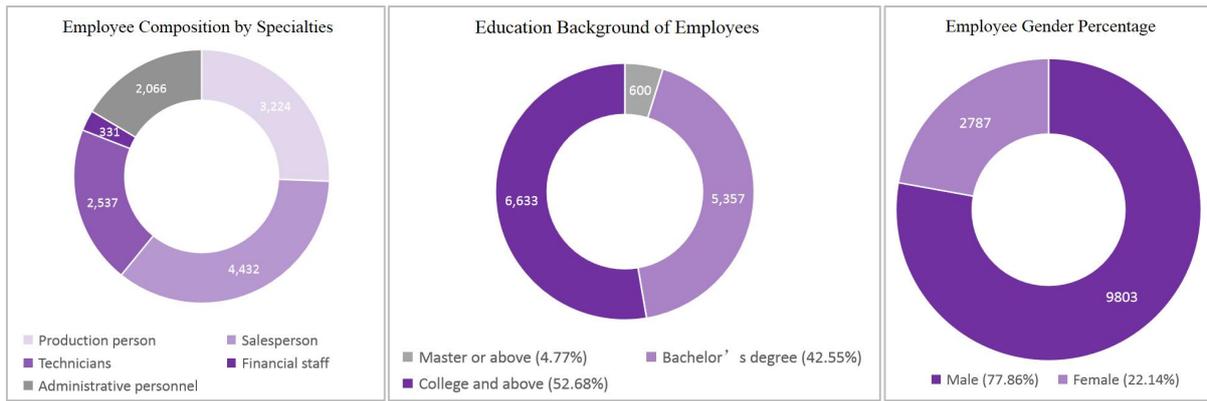
Employees are the most precious resources and wealth of an enterprise. Oriental Yuhong treasures highly the value of its employees. Adhering to the corporate tenet of “for the motherland, for the society, for customers, employees, and shareholders”, in combination with the Company’s developmental stage, industry features, and talent structure, Oriental Yuhong spared no efforts to maintain the legitimate rights and interests of its employees.

In 2022, the Company continuously created internal and external communication channels without boundaries, highlighted protection for the rights and interests of vulnerable groups, and strengthened security, environmental protection, and occupational health management; at the same time, it built a multi-dimensional and solid employees care system, implemented diversified staff incentive policies, straightened out all employee career development channels, continuously promoted their growth and development, continually improved employee satisfaction, made great efforts to guarantee the realization of rights and interests of the employees, rewarded employees and contributed to the society wholeheartedly.

The Company complies with the international convention on labour and human rights, abides by the *Labour Law of the People’s Republic of China*, *Labour Contract Law of the People’s Republic of China*, and the *Trade Union Law of the People’s Republic of China*, advocates recruitment policy of equality and non-discrimination, prohibits any acts of discrimination in recruitment, remuneration, benefits, and promotion, gives a fair treatment of employees of different nationality, race, and cultural background, fully respects the habits and customs of employees of all nationalities, respects employee’s rights to freedom of religious belief; focuses on promoting employment of women and minorities, and continually creates for employees a just, fair, harmonious, and humanistic working environment.

1. Building of Talent Team

Putting the people-centred development philosophy into practice, Oriental Yuhong recruited 660 fresh university graduates in 2022, introduced American scientists, extensively absorbed excellent talents from both home and abroad, and won the national and provincial talent awards. The Company adheres to its practice of retaining talent through cause, benefits, environment, and emotional attachment, optimizes its talent team structure, and jointly promotes the lasting foundation of enterprise development. By the end of 2022, the Company had 12,590 employees.



2. Basic Rights and Protection

Oriental Yuhong has established a strict human resource management system, strictly prohibiting and resisting the recruitment of any form of a child, strictly avoiding the occurrence of forced labour. As a result, no recruitment of children and forced labour has ever occurred so far.

The Company protects practically the legitimate rights and interests of the disabled and other vulnerable groups; the Company also participates in recruitment fairs specially prepared for the disabled every year, and provided the disabled with many posts of employment opportunities, such as sales representative, construction manager, and internal or office work.

The Company respects female employee career development, and practices equal pay with equal posts for both men and women employees. Women employees enjoy completely equal political rights, and under equal conditions, promotion favours female employees. In Trade Union management, employee general assembly and other important decision-making meetings, female employees enjoy equal rights and status. The Company cares for women employees' physical and mental health, strictly abides by the relevant state provisions, fully guarantees female employees "3-period" holidays, strictly prohibits female employees from participating in the fourth-grade heavy manual work, prohibits female employees from cold water and low-temperature operation during menstrual period.



3. Upholding of Labour Rights and Interests

The Company has set up a Trade Union organization in accordance with relevant provisions. At the same time, the Company has set up a business committee to encourage employees to actively participate in enterprise innovation and business management, to listen to the voice of the operation front line, and to respect the rights and interests of employees at the grass-roots level.

The Company actively builds internal and external no-boundary communication channels. Employees may report all kinds of human rights issues or problems that they have encountered or may occur across departments, cross-posts, cross-regional via office software, enterprise email, petition, report box and other kinds of online and offline channels. To the impeachment and petitions of employees, the Company will investigate and deal with in time, and each investigation will reach its conclusion, and will never delay. In 2022, there was no, not even one, report of violation of human rights or petition that occurred.

The Trade Union has set up a labour dispute mediation committee and labour dispute mediator team, adheres to its practices of deep engagement with employees, listens to their voices through various channels, and carefully answers hot, difficult and focused issues of their concern. To the major issues or problems reflected by employees, the Trade Union adheres to the principle that “consulting must be replied to, complaints must be dealt with, and processing or treatment must have a result”.

Employees’ labour relations, salary & benefit, labour protection, work time, holiday system and other events that are in close relation to employees’ interests are discussed by employee representative conference strictly in accordance with related policies and regulations. The conference fully listened to opinions and adopted suggestions of the staff, then negotiated, announced, and specified them in collective contracts.

4. Employment and Recruitment

The Company established and improved the labour system and regulated employment management. The rate of signing labour contracts with employees posts to meet the demands of the market and also established a competitive employment structure, to avoid the overuse of employment system.



was 100%. It improved the system of corporate development. The Company system and gradually optimized the part-time labourers to provide a secure

In 2021, the Company insisted on the equal conditions, priority was given to the hiring of local staff, which, relying on the rapid local business development of the Company, strongly promoted the local employment rate. With its continuous strategic map expansion, the Company had set up wholly-owned subsidiaries, production, R&D, and logistics bases in many cities, which had greatly increased the local industrial aggregate economic volume, promoted the employment of residents, and played a positive role in promoting the optimization of industrial structure and enriching industrial categories.

Classified employment

Competition on merit

Localised employment

Recruitment of fresh graduates

In 2022, the Company conducted publicity in more than 100 colleges and universities nationwide, organised more than 100 presentations and accepted 660 freshers.



5. Remuneration and Incentives

The Company boasts a perfect compensation incentive system. Based on its post value evaluation and in accordance with the principle of market-based remuneration level, the Company defines its salary according to post. Once the post changes, the remuneration will adjust accordingly. It gives priority to efficiency, renders remuneration according to performance, takes count of justice, and at the same time, conducts regular salary reviews and adjustments, gradually improves all forms of medium and long-term incentives, strives to provide employees with stable, attractive, and relatively more perfect compensation system, and enjoys together with the achievements of enterprise development, supports the grass-roots staff, and commits to training industry-leading technical staff and building a first-class team of craftsmen.

The Company has improved social insurance and housing provident fund systems, and paid insurance for employees' endowment, medical treatment, unemployment, employment injury, maternity and housing provident fund, with 100 percent coverage for all the employees. Meanwhile, the Company specially bought accident insurance for employees who went on business trips throughout the year. It also bought accident and commercial insurance for employees who went on business trips for training or group activity, making employees work comfortably and feel free to go on business trips.

On the basis of the annual assessment for excellent and advanced units and individual employees, the Company supplemented the category of the Figures Moving Yuhong, according to which, advanced collectives and individuals with outstanding performance and fast growth in terms of engineering technology, management, function, and sales, etc., would be commended, and the awards were conferred especially to those front-line personnel fighting at the grass-roots level and ordinary sales personnel who had always set new records.



6. Welfare Benefits and Care

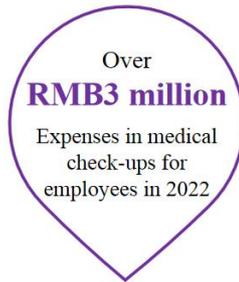
Oriental Yuhong treats employees as family members, committed to building four welfare care systems. For each significant day, Oriental Yuhong always tries to achieve “love, no miss”. On the day when employees celebrate a birthday, wedding, or give birth to a child, the Company sends its birthday gift, cash gift to the newly married, and gift to the new born child at the earliest time possible. During the Spring Festival every year, the Company also, with full gratitude, extends its sincere greetings and New Year’s gift to the parents of employees. The Company rewards the grass-roots staff whose children are admitted to top universities.



7. Health and Safety

Management System of Occupational Health and Safety

The Company puts the health and safety of employees in the first place, establishes a perfect occupational health and safety management system, forms a process, sets up a departmental safety officer identification and inspection of danger sources places, organizes regular occupational disease employees working in the relevant areas, management files, and creates better work health. The Company arranges regular medical and designs various medical check-up programs according to various perspectives such as gender, age, nature of work and medical history.



systematic safety operation and operating responsibility system, carries out regular in workshops, laboratories and other medical examination activities for establishes employee occupational health environment and conditions for employee check-ups for all employees every year

Labour Protection

The Company has built a standardized labour protection system, equipped with perfect labour protection supplies and safe operating tools, and regularly conducts practical and theoretical training to help them master the standardized operating procedures, the correct use of protective equipment and personal labour protection supplies to enhance the self-protection skills of employees.

In addition, the Company also focuses on creating a safe culture and a safe working environment. The Company has set up occupational health and safety warning signs at production sites. The Company carried out regular testing of dust, noise, toxins and other occupational hazards, and



commissioned qualified occupational health services to conduct annual health monitoring of occupational hazard jobs. The Company has timely upgraded the dust, toxic and noise protection facilities and eliminated outdated processes and technologies to improve the working environment in the workplace.

The Company strictly followed the national regulations to give subsidies to prevent heatstroke and regularly distributed heat stroke medication and drinks during the high-temperature season. In severe cold and heavy foggy weather, the Company promptly adjusted the working hours and content to protect the safety and health of employees in special environments.

Prevention and control of occupational diseases

The Company fully implemented the *Law of the People's Republic of China on Prevention and Control of Occupational Diseases*, focused on occupational health and safety supervision of employees and prevention and control of occupational disease, and continuously improved construction working conditions and prevented, controlled and eliminated occupational disease hazards. The Company gave occupational health care medical check-ups to employees engaged in work with occupational hazards before starting work, during work and before leaving work, and the results were all entered into the staff files timely and accurately. The Company timely followed up and reviewed the historically diagnosed occupational cases, and promptly organized patients who require hospitalization after the treatment in specialist hospitals, relieving employees of their worries. For employees in special jobs, a health care allowance and recuperation system was in place as required, and the incidence of occupational diseases among employees has been consistently reduced.

Psychological Health

The Company incorporated mental health management into routine management, paid attention to the psychological changes of employees, took the initiative to grasp the psychological state of different employees in different periods, correctly allocated and transformed manpower to help employees to solve the physical and mental pressure caused by the fierce market competition and relieve their anxiety and promote their mental health.

The Company reduced or eliminated factors that lead to occupational mental health problems and established a positive and healthy work environment. It improved the physical environment at work on the one hand; and improved the soft environment at work through organizational changes, leadership training, team building, job rotation and employee career planning on the other hand.



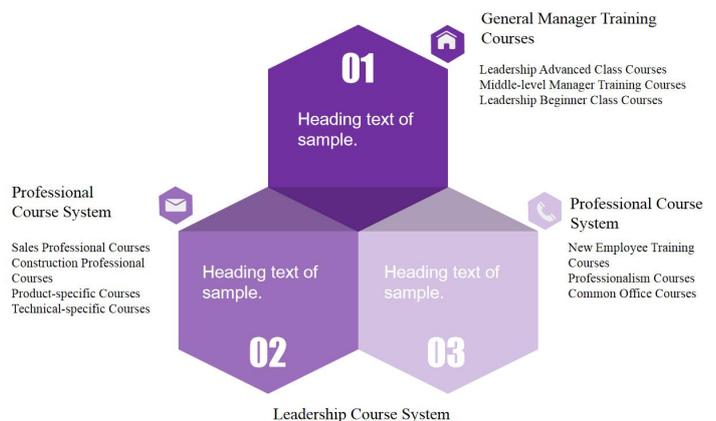


In line with the concept of harmonious symbiosis and common development between employees and the Company, Oriental Yuhong provided employees with opportunities to further enhance their skills and knowledge from the perspective of overall development, promoting the development of the Company with the personal development of employees and enhancing the personal value of employees with corporate development, and building an internal training system with rich contents including new employees, management staff, professional sequence, and partners, etc.



Training Situation in 2022

In 2022, Oriental Yuhong thoroughly improved its training organization structure, operational processes, and management systems, further defining the strategic positioning, development strategies, resource building goals, and operational policies for training work. A systematic review and organization of the course system, teacher system, evaluation system, and knowledge management system were conducted, resulting in a comprehensive training effectiveness guarantee system.



Institutional guarantee: The Company has established the Lecturer system and the staff tutorial system, honoured good students and good teachers on a regular basis, and encouraged staff to attend the accreditation of professional qualifications and senior and mid-level professional titles. Employees could enjoy benefits like paid leave and reimbursement of accreditation costs during preparation. Employees who were active to learn and good at learning were preferred candidates for promotion and were rewarded.

Digital Learning	Employees could carry out outward training, theoretical training and practice drills in flexible and multiple ways such as E-learning, Live Streaming and offline case sharing and discussions.
Professional Teachers	The Company has established a strategic partnership with associations of experts in the waterproofing industry and higher education institutions and invited experts and prominent teachers to give lectures regularly. Meanwhile, the Company has established an internal system of lecturer training and accreditation so that abundant good teachers were pooled.
Customized Courses	The Company provided targeted training from various perspectives based on the position sequence, ranks and different professional positions.



Career Planning and Development

In 2022, the Company introduced professional consultancy institutions, established and optimized the qualification system based on the Company's development strategy. A total of 26 subsequence in five classifications were set as guidelines for staff's professional development vertically, comprehensive development horizontally, professional routes and management of different career paths.

According to the evaluation method in the professional behaviour evaluation system combining the qualification standard, the professional development plan and the competence model, employees were encouraged to do job rotation and get promotion through normal development, internal competition, or accelerated promotion.

The Company strengthened performance feedback and improvement by having face-to-face conversations with staff each quarter and taking talent cultivation as part of the department manager's main responsibilities. The Company also introduced a series of testing and evaluation tools to carry out evaluations based on subsequence, and positions to promote professional development with the help of 360 Degrees Evaluation and other off-line evaluation tools.

The business sequence, whose professional development path used to be management, now has a multichannel development mechanism aside from management so that different kinds of talents are provided with development paths.

(II) Development with Craftsmen and Workers

Oriental Yuhong, as the leading unit of the China National Building Waterproof Association, enthusiastically puts forward ideas and recommendations for the progress of the industry, and collaborates with a vast community of craftsmen and workers to achieve growth. In August 2018, the official launch of the Oriental Yuhong Labour Platform “Yuhong Craftsman” platform APP. The platform serves construction teams and craftsmen as the main service body, running through the collection, sorting, transmission, processing, application, and service process. It includes project resource integration, labour accident insurance information management, real-name registration of worker roles, recruitment function to expand worker resources, real-name face recognition positioning attendance, provincial unit-based online localization function of labour teams, hierarchical management of construction teams, construction service evaluation mechanism, etc.



In 2022, Oriental Yuhong focuses on informatization, adheres to a rigorous engineering management system, effectively protects the legitimate rights and interests of front-line construction personnel, and further improves the efficiency of project quality and safety management. In 2022, the “Yuhong Craftsman” APP further deepened the application and implementation of measures such as “Yuhong Labour Weekly Salary System”, insurance “visualization”, training “full coverage”, and quality positive cycle, contributing to the sustainable and healthy development of the industry.

1. The platform’s motto of “More People, More Jobs” is embodied in its free registration and release system, which covers all types of projects, regardless of size.
2. Safe and Real: The platform enables users to view personnel resumes and evaluations while keeping real-name authentication information confidential. It employs virtual numbers and online communication methods, supports single sign-on, and prioritizes user privacy and security.
3. Management Empowerment: The platform employs facial recognition and location-based check-in to monitor attendance of project construction personnel, and maintains detailed records of personnel information, construction logs, and process data to aid management staff in work recording and accounting.

4. Convenient Insurance: The platform offers comprehensive insurance products for workers of different types, with flexible options for single-day investment, settlement, and one-click start-stop. The insurance claim process is simplified through visualization.
5. Secure Settlement: The platform provides online payment options, transparent settlement fees, and a traceable settlement progress.

Over 5,400
construction teams

Over 270,000
long-term cooperative
workers

Over 20,000
daily average workers
on-site

Over 10,000
daily active users on
the platform

As of March 2023, the relevant data of the Yuhong Craftsman Labour Service Platform are as follows:

Weekly Salary System

On a daily basis, the system compiles a summary of the attendance and work status of each construction worker, which is then used to generate a weekly salary payment statement. Upon verification and confirmation, the platform ensures timely payment of weekly salaries to construction workers, with a commitment to establishing a more transparent, efficient, and equitable labour salary system.

Insurance “Visualization”

“Insured during construction” offers convenient functions for labour accidental injury insurance, providing more economical and practical insurance solutions for workers. It also supports one-click operations for insurance enrolment and withdrawal, real-time project insurance status view, and online insurance claim “visualization.”

Quality Positive Cycle

Oriental Yuhong actively organizes on-the-job training and professional skills level certification exams. Training records and related certificates can be viewed on the platform, ensuring that project construction personnel hold relevant professional qualifications and certifications.

Full Coverage Training

“Check-in during construction” features safety and quality inspection check-in functions. Safety and quality management personnel and inspection teams can cross-check the actual construction situation based on check-in information, strengthening the “normalization” of construction safety management and the implementation of standardized construction.

(III) Warm-hearted Actions for a Caring Society

Oriental Yuhong has always adhered to the guiding principle of “serving the country by developing industry, benefiting the people with good services,” fulfilling corporate social responsibility, and collaborating with subsidiaries. Through activities such as assisting vulnerable groups, supporting education, and improving living environments, the Company has consolidated poverty alleviation efforts, contributed to the development of education, served people’s living environment, and dedicated itself to society with genuine actions.

Village-enterprise Collaboration, Helping Vulnerable Groups

(1) Providing Warmth and Improving Village Environments



During the warmth-giving assistance activities conducted by the Wuhu City business system on 25 January 2022, Wuhu Oriental Yuhong demonstrated a proactive response by visiting Qinggang Village in Honggang Town. They offered condolences and made on-site donations specifically aimed at improving the village environment. Through their practical actions, they exemplified the traditional virtues of aiding the impoverished and alleviating distress.

(2) Caring Donations for the Party-People Connection Bridge

(3) Mid-Autumn Festival Caring and Consolation Activities

On 10 February 2022, in the “No.10 Work Studio - the Bridge between the Party and the Masses” activity in Huadu District, Guangzhou City, Guangdong Oriental Yuhong Waterproof Engineering Co., Ltd. actively helped people deal with their problems and donated RMB115,000 for medical expenses to aunt Li in Liantang village, fulfilling the corporate value of “the true, the good, and the beautiful” with practical actions.



Xuzhou Wonewsun took an active part in the village-enterprise joint construction event organized by the local charity association and development zone in Xu Zhou on 8 September 2022. During the event, they visited Ni Dun Village in Xinyi City, Xu Zhou, where they donated daily necessities for the Mid-Autumn Festival and provided comfort to the impoverished residents.



Green Building Materials Go to the Countryside



Under the guidance of six national departments including the Ministry of Industry and Information Technology, the Ministry of Housing and Urban-Rural Development, the Ministry of Agriculture and Rural Affairs, the Ministry of Commerce, the State Administration for Market Regulation, and the National Rural Revitalization Bureau, and hosted by the Hunan Provincial Department of Industry and Information Technology and the Yueyang Municipal People’s Government, Oriental Yuhong participated in the 2022 National Green Building Materials Going to the Countryside event (Hunan station) with products such as

ceramic tile adhesive, waterproof coatings, and grout. They actively promoted the application of green building materials, contributed to the construction of beautiful villages, and were awarded the title of “Participating Enterprise in the National Green Building Materials Going to the Countryside Event (Hunan Station).”

Focusing on Education

(1) Encouraging Students with Scholarships

On 12 August 2022, Tiandingfeng attended the “Caring for Education” donation ceremony at the Education Bureau of the West Dongting Management District in Changde City, donating the second instalment of scholarships to Hunan Changde West Dongting No. 1 Middle School and Central Kindergarten. On August 26, they donated the eleventh instalment of the “Tiandingfeng Scholarship” to Shandong Linyi County No. 1 Middle School, an act of charity that has persisted for 11 years.



Following the signing of the university-enterprise cooperation agreement with Shanghai Normal University and a RMB 100,000 donation in 2021, DAW donated another RMB 100,000 to the Shanghai Normal University Education Development Foundation in July 2022. DAW will continue to promote the cultivation of future talents with its corporate strength, achieving a win-win situation for students, schools, and enterprises.



In September 2022, the unveiling ceremony of the Gold Machilus Film & Jiangnan University Advanced Membrane Packaging Materials Design and Manufacturing Joint Laboratory was held at Jiangnan University. The two parties will jointly promote the application and development of advanced membrane materials in the packaging field through the joint laboratory, and awarded the “Gold Machilus Film Scholarship” to outstanding students in the Packaging Engineering Department of the School of Mechanical Engineering.

(2) Donations and Care for the Growth of Adolescents

On 24 January 2022, Oriental Yuhong in Yueyang actively participated in the local Yunxi District Committee’s New Year’s consolation event for disadvantaged adolescents. The company prepared donations and provided care for more than 30 youths facing challenging circumstances.



On 31 May 2022, Xianyang Oriental Yuhong Construction Materials Co., Ltd. visited Lixian County Nafang Town Central Primary School in Xianyang City, Shaanxi Province. The company donated stationery and extended Children’s Day blessings to all students, creating a festive atmosphere and inspiring the students to persevere and strive for progress.

Improving Living Environments

(1) Community Outreach and Anti-Leakage Activities



In May 2022, Jingzhou Oriental Yuhong Building Renovation Engineering Company provided free house renovations for elderly individuals living alone in the Jingxiang River community, helping them address their concerns in life.

As an embodiment of the Company’s commitment to social responsibility, Yuhong’s home service initiative carried out “Community Outreach and Anti-Leakage” activities, offering public welfare assistance to vulnerable groups, such as those without income, healthcare, or family support, the disabled, and military families. Yuhong’s services brought warm renovation services to thousands of households and earned the 2022 Public Welfare Practice Award at the 12th Public Welfare Festival.

(2) Vibration and Noise Public Education Activities

In 2022, Beijiao Zhen’an, a subsidiary of Zhong Ke Jian Tong, aimed to improve the quality of living environments and enhance public services. They carried out activities on public education, monitoring, and the environmental impact of rail transit vibration and noise at Beijing Foreign Studies University and No. 40 Beiyuan South Road residential community. These efforts provided citizens with active help and advice on dealing with the impact of vibration and noise. By the end of 2022, Beijiao Zhen’an had conducted over 40 public education and vibration and noise monitoring activities in 24 residential communities and one university in Beijing.

Closing Remarks

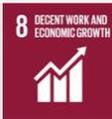
Mountains Ascend through Accumulation, and Rivers Magnify by Merging.

The journey is interminable and never-ending. During this crucial phase of China's national revitalization, the obstacles to achieving advancements in core technologies, sustainable development, and societal transformation, as well as striving for an improved quality of life for all, are more formidable than ever. This necessitates us to have the courage to ride the waves and confront adversity with bravery, exhibiting the perseverance of "withstanding a thousand tests and hardships, yet remaining unyielding," to accomplish noteworthy accomplishments befitting our era and carry out our duties with honour.

Oriental Yuhong attributes all its business success and progress to the era, the motherland, generous support of customers, and concern and care for society. Gratitude and empathy are the basic characteristics of its corporate culture and the principle of CSRs of Oriental Yuhong.

--Li Weiguo, Chairman of Oriental Yuhong

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