

世界职业技术教育发展大会 WORLD VOCATIONAL AND TECHNICAL EDUCATION DEVELOPMENT CONFERENCE

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REPORT ON THE DEVELOPMENT OF VOCATIONAL EDUCATION IN CHINA Ministry of Education of the People's Republic of China



序 言 职业教育是国民教育体系和人力资源开发的重要组成部分。发展 职业教育,已经成为世界各国应对经济、社会、人口、环境、就业等方 面挑战,实现可持续发展的重要战略选择。

中国职业教育源远流长,师徒制教学有着悠久的历史,主要有父业 子承、合同式学徒制、行业学徒制等形式。19世纪中叶,中国为了"自 强""求富",一批有识之士创建了福建船政学堂等实业学校,标志着中国 近代学校职业教育的正式诞生。职业教育始终与国家命运和家庭幸福 紧密联系,承担着经世利民、求是致用的历史重任。

进入新时代,中国政府高度重视职业教育,把职业教育摆在经济社 会发展和教育改革创新更加突出的位置。职业学校 70% 以上的学生来 自农村,"职教一人,就业一人,脱贫一家"成为阻断贫困代际传递见效 最快的方式,在中国开展脱贫攻坚、全面建成小康社会中发挥了重要作 用。职业教育肩负着培养多样化人才、传承技术技能、促进就业创业的 重任,为支撑国家产业结构转型升级、推进中国制造和服务的水平、保 障民生等方面作出了突出贡献。

经过长期的实践探索,中国形成了独具特色的现代职业教育发展 范式。实践表明,紧跟经济社会发展需求,服务产业升级,推进产教 融合、校企合作,是职业教育高质量发展的动力源;坚持扎根中国大 地、立足中国国情,服务区域产业发展,是职业教育增强适应性的深厚 土壤;落实立德树人根本任务,培养德技并修、手脑并用、终身发展的 高素质技术技能人才,促进教育链、人才链与产业链、创新链有效衔接, 促进就业创业,是提高社会贡献度和认可度的根本途径。

海纳百川,相倚为强。世界职业教育的蓬勃发展,离不开各国先进 特色理念和经验的相互启发、相互砥砺。在经济全球化的大潮中,任何 一个国家的职业教育都不能独处一隅,只有交流对话才能协同并进、不

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断超越;中国既学习借鉴国际先进的职业教育发展经验,也愿意与各国 共享经验成果,以更加开放的姿态和自觉的担当,为建设更高水平的现 代职业教育、助力建设人类命运共同体作出积极贡献。

为介绍中国职业教育发展成就,与国际社会分享中国职业教育创 新举措、发出职业教育合作邀约,特发布本报告。



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现代化进程中的中国职业教育第一篇

现代化是人类历史发展的伟大变革,是以工业化为核心,推动经济增长、思想革命、制度创新和社会转型的发展历程。中国式现代化 是一个具有几千年农业文明大国的现代化,是超大人口规模的现代化, 是经济、社会、文化、教育的全面现代化。中国职业教育与中国现代化 共生发展,发挥着服务经济发展、促进民生改善、优化教育体系、增进 国际交流的作用,在面向世界的现代化进程中作出了不可替代的贡献。

一 支撑经济高质量发展

中国加快推进经济结构调整和产业转型升级,迈向更高质量、更 有效率、更加公平、更可持续、更为安全的发展之路。职业教育作为对 接产业最密切、服务经济最直接的教育类型,在经济高质量发展中起 到了重要的人力资源供给和生产力转化作用。

——为产业经济提供源源不断人才红利。中国职业教育主动适应 经济结构调整和产业变革,紧盯产业链条、市场信号、技术前沿和民生 需求,设置1300余种专业和12余万个专业点,覆盖国民经济各领域。 近十年来,累计为各行各业培养输送6100万高素质劳动者和技术技 能人才,在现代制造业、战略性新兴产业和现代服务业等领域,一线新 增从业人员70%以上来自职业学校毕业生,促进中国人口红利的释放 与实现,推动先进技术和设备转化为现实生产力,为中国产业链、供应 链保持强大韧性、行稳致远提供了基础性保障和有生力量。

——为数字经济跑出加速度提供先导力量。伴随工业信息化、智能化转型,中国职业教育紧盯数字技术前沿,加快专业升级改造,布局一批新兴专业,提升数字技能人才培养能力。大力改造提升传统专业,从专业名称到专业内涵全面推进数字化,使人才培养适应数字经济变

革。优化和加强 5G、人工智能、大数据、云计算、物联网等领域相关 专业设置,重点打造互联网应用技术、大数据技术与应用等高水平专业 群,扩大数字技能人才供给。开发设计大数据分析与应用、云计算平台 运维与开发等职业技能等级证书,并融入职业学校人才培养全过程,与 华为、腾讯等数字经济头部企业联合培养培训大批数字化技术技能人 才,服务数字产业化和产业数字化。

——为生态经济提供"绿色技能"转化服务。中国正加快开展各领域低碳行动,推动全产业链生态化发展。职业教育积极参与绿色技能开发,设置绿色低碳技术、智能环保装备技术等专业,扩大绿色低碳技术技能人才供给规模。在职业教育教学标准体系中融入绿色低碳环保理念,将绿色技能纳入国家职业院校技能大赛赛项内容,把绿色要素、绿色理念融入职业学校课堂教学全要素、全过程。中国加强与国际合作组织在绿色技能开发上的合作,通过亚太经合组织(APEC)的"职业教育系统开发绿色技能"项目,将绿色、环保、可持续发展理念融入职业教育与培训体系之中。

二 推动社会协调发展

职业教育是提升社会流动性、防止阶层固化、保持社会活力的重要 途径,在满足人的多样化发展,推进社会协调发展上发挥着重要作用。

一一为人的多样化发展提供通道。中国树立开放包容融合的大教 育观,建立适应多样化发展需要,纵向贯通、横向融通,服务全民终身 学习的现代职业教育体系,为不同性格禀赋、不同兴趣特长、不同素质 潜力、不同学习阶段的学生提供多样化选择、多路径成才机会,让更多 学生就业有本领、升学有渠道、发展有通道。每年有 30 万左右的退役 军人、下岗待就业人员、农民工和新型职业农民等社会生源接受高等职 业教育。连续举办全国职业院校技能大赛,让职业学校学生获得展示 技能风采、实现人生价值的机会和舞台。

——为实现高质量就业搭建阶梯。职业教育坚持面向市场、服务 发展、促进就业的办学方向,紧跟产业发展步伐,人才培养对岗位要求 的适应性不断增强,职业学校毕业生就业率连续保持高位,中职、高职 毕业生就业率分别超过95%和90%,专业对口就业率稳定在70%以 上。职业学校毕业生就业岗位遍布高端产业和产业高端,高职毕业生 半年后年收入显著高于城乡居民人均可支配收入平均水平。

——为缩小贫富差距提供途径。中国政府大力发展面向农业农村的职业教育,构建农村职业教育与培训优质资源体系,15%的高职院校年开展新型职业农民培训超过5000人/日,培养了大批"土专家""田秀才""乡创客""致富带头人",有效服务现代乡村产业体系建设。职业学校70%以上学生来自农村,有力推进新型城镇化进程,成为脱贫攻坚和乡村振兴的生力军。2013年至2020年年底,累计有800多万贫困家庭学生接受职业教育,"职教一人,就业一人,脱贫一家"成为阻断贫困代际传递见效最快的方式。职业学校毕业生已经成为乡村振兴、扩大中等收入群体的重要来源。

三 服务高质量教育体系

构建高质量教育体系是教育现代化的必然要求,作为与普通教育 同等重要的类型教育,职业教育是构建高质量教育体系的重要内容和 活力因素。

——优化教育结构的重要一翼。随着新一轮科技革命和产业变革

不断深化,世界各国空前重视产业链全链条的协同布局,加大研发人 才、工程人才、技术人才、技能人才的协同培养。近年来,中国将职业 教育作为优化教育结构和教育综合改革的重要突破口,提高职业教育 质量,增强职业教育适应性,职业教育在规模和质量上同步提升,稳居 中国教育的半壁江山,动态适应新经济、新技术、新业态、新职业发展 变化。

一促进教育公平的必由之路。中国始终坚持以人民为中心的发展思想,将职业教育作为优质教育均衡发展的重要内容,努力让14亿多人民享有公平而有质量的教育。为保障人人都有机会接受职业教育,中国政府建立了职业教育免、补、助、奖、贷等助学体系,中职免学费、助学金分别覆盖超过90%和40%的学生,高职奖学金、助学金分别覆盖近30%和25%的学生。职业教育还为残障人士、生活困难者等弱势群体提供多种形式教育和技能培训,在促进职业教育与普通教育、特殊教育、继续教育协调发展方面发挥重要作用。

四 促进国际交流与合作

和羹之美,在于合异。中国职业教育面向世界、融通中西,在"引 进来""走出去"中不断实现"再提升",推动构建开放型经济体系,成 为国际经济、技术和文化交流合作的重要载体。

——助力国际产能合作。职业教育伴随中国企业和产品"走出去"、服务共建"一带一路",与 70 多个国家和国际组织建立了稳定联系,与
19 个国家和地区合作建成 20 家"鲁班工坊",在 40 多个国家和地区合作开设"中文+职业教育"特色项目,培养了大批懂中文、熟悉中华传统文化、当地中资企业急需的本土技术技能人才;一大批中国职业学

校教师涉重洋,手把手将职业技能和经验传授给当地青年,帮助"一带 一路"沿线国家培养技术技能人才,助力合作国家工业化进程。

一推动技术文化交流。中国积极参与世界技能大赛,以赛会友、以 赛促技。自2010年正式加入世界技能组织,近五届世界技能大赛累计 获得36枚金牌、29枚银牌、20枚铜牌,参赛项目和参赛规模不断扩 大。面向欧洲地区,打造中欧"双元制"产教融合平台,加强与德国、法 国、瑞士等欧洲国家相关行业领域优质企业职教合作,推动成立"中国 一中东欧国家职业院校产教联盟",搭建与中东欧国家校企合作平台; 面向非洲地区,启动"未来非洲一中非职业教育合作计划",合作成立 "中非职教合作联合会",进一步加强与非洲国家职业学校的联系与交 流;面向东南亚地区,实施"中国一东盟双百职校强强合作旗舰计划", 在中国和东盟国家职业学校中已遴选80对特色合作项目。2022年, 主办金砖国家职业教育联盟大会,成立金砖国家职业教育联盟,举办金 砖国家职业技能大赛,积极推动金砖国家加强职业教育领域交流对话。

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2012 年以来,中国政府把职业教育作为与普通教育同等重要的类型教育,不断加大政策供给、创新制度设计,加快建设现代职业教育体系,构建多元办学格局和现代治理体系。中国职业教育实现由参照普通教育办学向相对独立的教育类型转变,进入提质培优、增值赋能新阶段。

一 确立职业教育类型定位

2014年,国务院召开全国职业教育工作会议,教育部等六部门印 发《现代职业教育体系建设规划(2014—2020年)》,明确到2020年 形成适应发展需求、产教深度融合、中职高职衔接、职业教育与普通教 育相互沟通,体现终身教育理念,具有中国特色、世界水平的现代职业 教育体系。教育部启动实施《高等职业教育创新发展行动计划(2015— 2018年)》和《职业院校管理水平提升行动计划(2015—2018年)》, 全面激发职业学校办学活力,提升办学质量。

2019年,国务院出台《国家职业教育改革实施方案》,提出"职业 教育与普通教育是两种不同教育类型,具有同等重要地位",整体搭建 职业教育体制机制改革的"四梁八柱",集中释放了一批含金量高的政 策红利。2020年,教育部等九部门印发《职业教育提质培优行动计划 (2020—2023年)》,进一步确立国家宏观管理、省级统筹保障、学校 自主实施的工作机制。31个省份和新疆生产建设兵团的4562所学校 和有关单位承接任务,计划投入3075亿元。2021年,中共中央办公厅、 国务院办公厅印发《关于推动现代职业教育高质量发展的意见》,系统 梳理中国职业教育改革实践经验,从巩固职业教育类型定位、推进不 同层次职业教育纵向贯通、促进不同类型教育横向融通三个方面强化 职业教育类型特色。 2022 年 5 月 1 日,新修订的《中华人民共和国职业教育法》(以 下简称新《职业教育法》)正式实施,明确"职业教育是与普通教育具 有同等重要地位的教育类型,是国民教育体系和人力资源开发的重要 组成部分,是培养多样化人才、传承技术技能、促进就业创业的重要途 径",标志着现代职业教育体系建设进入新的法治化进程,也意味着职 业教育"类型"地位在法理上得到保障。

十年来,中国职业教育不断深化改革,探索建立"职教高考"制度, 实施"文化素质+职业技能"分类考试招生;规范特色培养过程,从培 养目标、课程设置、学时安排、实践教学、毕业要求等方面对职业学校 专业人才培养方案制订提出具体要求,为专业人才培养和质量评价提 供基本依据;建立实习管理制度,明确实习的内涵和边界,重点对职业 学校实习治理水平提出系列措施;将职业本科纳入现有学士学位制度 体系,在学士学位授权、学位授予标准等方面强化职业教育育人特点。 从顶层设计到制度标准,构建了一整套贯穿学生入口到出口、具有中国 特色的职业教育制度体系。

二 完善现代职业教育体系

近年来,中国职业教育主动适应经济社会发展需要,落实职业学校 教育和职业培训并重,促进职业教育与普通教育横向融通,推进不同层次 职业教育纵向贯通,加快建设服务全民终身学习的现代职业教育体系(图 1)。职业学校教育包括职业启蒙教育、中等职业学校教育、高等职业学校 教育等阶段。职业培训包括技能培训、劳动预备制培训、再就业培训和企 业职工培训等类别,依据职业技能标准,培训分为初级、中级、高级职业 培训和其他适应性培训,企业、学校、社会机构等均可开展职业培训。



图 1 现代职业教育体系

基础教育阶段开展职业启蒙教育。全国有超过4500所中、高职 学校积极支持中小学开展劳动教育实践和职业启蒙教育,辐射中小学 近11万所,每年参与人次超过1500万。

中等职业学校教育由普通中专、成人中专、职业高中、技工学校等 实施,主要招收初中毕业生或具有同等学力的社会人员,以3年制为 主。2021年,全国设置中等职业学校7294所(不含技工学校),招生 488.99万人,在校生1311.81万人,分别占高中阶段教育招生总数和 在校生总数的35.08%、33.49%。中等职业学校毕业生可以继续接受 高等专科、本科和研究生教育。

高等职业学校教育包括专科、本科及以上教育层次,主要招收中等 职业学校毕业生、普通高中毕业生以及同等学力社会人员,专科为3年 制、本科为4年制。2021年,全国设置高等职业学校1518所(含32 所职业本科学校),招生556.72万人,在校生1603.03万人。职业本 专科招生人数和在校生总数分别占全国本专科高校招生数和在校生总 数的55.60%、45.85%。

2019年,中国启动"职业技能提升行动计划",截至2021年,共 开展各类补贴性职业技能培训5000余万人次。从2019年起,中国政 府从失业保险基金结余中拿出1000亿元,设立专项账户,统筹用于 职业技能提升行动。目前,全国1万余所职业学校每年开展各类培训 上亿人次,在开展新型职业农民培训服务的高职院校中,141所学校 年培训量超过5000人/日,86所学校年培训量超过10000人/日。

三 加强职业教育内涵建设

中国职业教育逐步从以规模扩张为主的外延式发展向以质量提升、 机制完善为主的内涵式发展转变,在标准体系构建、师资队伍建设、校 企双主体育人、数字信息化实践等方面取得了积极成效。

——建设职业教育国家标准体系。建立专业、教学、课程、实习、 实训条件"五位一体"的国家标准体系。融合新技术、新业态、新职业 要求,编制了中职、高职专科、职业本科教育一体化专业目录;先后发 布了 230 个中职专业和 347 个高职专业教学标准、51 个职业学校专 业实训教学条件建设标准、136 个专业(类)顶岗实习标准以及 9 个专 业仪器设备装备规范等;制定了 497 个职业(工种)技能鉴定标准,6 万余项行业培训标准和 42 大类企业培训标准。

——打造"双师型"教师队伍。实施"职业院校教师素质提高计划", 建立"国家示范引领、省级统筹实施、市县联动保障、校本特色研究" 的四级培训体系。2012 年以来,中央财政累计投入 53 亿元,带动省 级财政投入 43 亿元,超过 110 万名职业学校教师参加国家级及省级培 训。2019 年,教育部等四部门公布 102 家企业为全国职业教育教师企 业实践基地,已通过国家职业教育智慧教育平台发布两批共计 537 项 教师实践项目,服务职业学校包含国家级教学创新团队教师数量超过 2 万人。2019 年,启动职业教育教师教学创新团队建设工作,分两批建 设 364 个教学创新团队,示范带动建立省级创新团队 500 余个、校级 创新团队 1 600 余个,教师分工协作模块化教学的模式逐步建立,团 队能力素质全面加强。2012—2021 年,职业学校专任教师规模从 111 万人增至 129 万人,增幅 17%,"双师型"教师占专业课教师比例超过 50%。

——构建校企双主体育人机制。近十年来,中国政府各类政策均把校企合作作为重要内容,支持职业学校与企业开展订单班、现代学徒制、产业学院、集团化办学等多种合作。截至2021年,全国组建约1500个职教集团,吸引3万多家企业参与,覆盖近70%的职业学校。培育3000多家产教融合型企业、试点建设21个产教融合型城市,给予产教融合型企业金融、财政、土地等支持,享受教育费附加、地方教育附加减免及其他税费优惠。职业学校与企业共建实习实训基地2.49万个,年均增长8.6%。"十三五"期间,分三批在全国布局了558个现代学徒制试点,覆盖职业学校501所,1000多个专业点,惠及10万余名学生;先后在22个省启动企业新型学徒制试点工作,试点企业158家,培养新型学徒制企业职工近2万人,其中转岗职工超过3670人。

一推进职业教育数字化。近年来,中国职业教育大力推进现代 信息技术应用,在信息化基础设施建设、数字教育资源开发、人员技术 培训和管理系统应用等方面取得重要进展,数字生态建设取得积极成 效。90%以上的职业学校建成了运行流畅、功能齐全的校园网;85% 以上的职业学校按标准建成数字校园。建设了一批在线课程平台,建 成了203个职业教育国家级专业教学资源库,开发了涵盖文理工农医 等12个学科门类的992门精品视频公开课和2886门国家级精品资 源共享课。2022年,中国实施"教育数字化战略行动",国家职业教育 智慧教育平台上线运行,汇聚了1200个专业资源库、6600余门在 线精品课、2000余门视频公开课,用户覆盖全国各省份,并惠及180 多个国家和地区,在疫情期间通过数字技术支持教育复甦,实现了"停 课不停学"。

四 打造多方协同治理体系

中国政府确立了"管办评分离"教育治理原则,厘清政府、学校 和社会三者的权责关系,优化职业教育生态,建立系统完备、科学规 范、运行有效的制度体系,形成了职能边界清晰、多元主体充分发挥 作用的新局面。

一加强政府统筹管理作用。深化政府职能转变,教育"统管"转变为教育"督导"。2012年,发布《教育督导条例》,明确教育督导的职能定位。2016年,发布《中等职业学校办学能力评估暂行办法》和《高等职业院校适应社会需求能力评估暂行办法》,并分别于2016年、2018年、2020年开展了三轮职业学校评估。2017年,发布《对省级人民政府履行教育职责的评价办法》,将"加快发展现代职业教育"作

为评估内容,并于 2018 年起,每年开展对省级人民政府教育职责评价 工作。2020年,发布《关于深化新时代教育督导体制机制改革的意见》, 建立教育督导部门统一归口管理、多方参与的教育评估监测机制。

——强化行业自律和主动参与。积极发挥行业指导和企业重要办 学主体作用,推行产业规划和人才需求发布制度,引导学校紧贴市场 和就业形势,动态调整专业目录。2010年,启动全国行业职业教育教 学指导委员会(以下简称行指委)建设,经过五次调整、换届,现设置 57个行指委,各行指委共编发60个行业人才需求预测与专业设置指 导报告,44个行指委牵头制订了国家职业教育教学标准。近五年来, 在行指委的指导下,校企合作开发课程8000多门、编写教材6000 多本,行业企业提供实训设备设施总值超过1500亿元、投入建设经 费超过60亿元,8万多名企业人员到职业学校兼职,23万多名职业 学校教师到企业实践。

——提升办学主体自治能力。持续扩大职业学校办学自主权,积
 极推进以章程为引领的现代学校制度建设,激发办学活力和自主性。
 2013年,探索"知识+技能"考试招生制度,完善高考考试招生、单
 独考试招生、综合评价招生、技能考试招生、中高职贯通招生、免试招
 生等考试招生方式,逐步形成省级政府为主统筹管理、学生自主选择、
 学校多元录取、社会有效监督的中国特色高等职业教育考试招生制度。
 实行高职专业设置备案制,高职院校可自主设置指导性专业目录内所
 有专业。2015年起,在职业学校开展教学诊断与改进工作,进一步完
 善职业教育内部质量保证制度体系和运行机制,强化落实职业学校的
 第一质量主体责任。

——构建社会监督体系。发挥利益相关方评价作用,引导职业教育良性发展。借助第三方评价,定期跟踪评价人才培养质量,发挥监测

评价、预测预警功能,提升教育发展动态监测能力;鼓励各地充分依托 大数据技术,探索构建区域教育综合评价体系,进一步做好教学质量监 测,注重质量分析和结果反馈,全方位精准诊断职业学校办学中的优势 与问题。2012年起,每年发布高等职业教育质量年度报告,2016年起, 每年发布中等职业教育质量年度报告,报告内容体系逐年完善,职业学 校质量意识显著提高。

五 加大职业教育办学投入

中国加大各级财政对职业教育的投入力度,完善与办学规模、培养 成本、办学质量相适应的财政投入制度,充分利用社会资本发展现代职 业教育,鼓励社会力量举办和参与举办职业教育。

——发挥公共财政的主导作用。全国各级财政部门把职业教育作为投入重点,坚持把教育经费向职业教育倾斜。"十三五"期间,中国职业教育经费累计投入 2.4 万亿元,年均增长 7.8%,其中,财政性职业教育经费达 1.84 万亿元,年均增长 8.6%,财政性职业教育经费在全部职业教育经费中占比逐年增长。职业教育生均拨款制度持续完善,中国各省份均已建立中职和高职生均拨款制度。"十三五"末期,全国中高职生均财政拨款水平达约 1.6 万元,国家助学金政策资助中高职院校学生超过 580 万名,财政资金投入接近 119 亿元,重点帮扶了 11 个集中连片特困地区的学生和建档立卡贫困户家庭学生。

——鼓励社会力量举办和参与举办职业教育。推动国有企业、民营资本成为参与和举办职业教育的重要力量。全国国有企业举办职业教育机构共 435 个,其中中央企业 197 个、地方国有企业 238 个;民办高职学校 337 所,在校生 323 万人;民办中职学校在校生 249 万人。

中国积极探索实施职业教育股份制、混合所有制改革试点,如山东省 在全国率先发布《关于推进职业院校混合所有制办学的指导意见(试 行)》,明确办学形式、设立要求及办学管理,全省开展混合所有制改革 的职业学校达到 47 家,拉动社会资本投入超百亿元。

——实施示范性项目建设。2006年以来,中国政府累计投入资金超5000亿元,先后实施国家示范性(骨干)高职院校建设计划、国家中等职业教育改革发展示范学校建设计划、高等职业学校提升专业服务产业发展能力项目、实训基地建设计划、中国特色高水平高职学校和专业建设计划、职业教育办学条件达标工程等重大项目,支持建设了199所国家示范(骨干)高等职业学校,1000所国家中等职业教育改革发展示范学校,197所"中国特色高水平高职学校和专业建设计划"建设学校,3000多个实训基地,大幅改善职业学校办学条件,引领中国职业教育内涵式发展。


中国把职业教育定位于国民教育体系和人力资源开发的重要组成 部分,充分发挥中国特色社会主义制度优势,政府主导与市场引导相结 合、发展经济与服务民生相结合、教育与产业相结合,构建了现代职业 教育发展的制度体系,形成了职业教育发展的中国模式,为中国式现代 化道路注入了强劲的职教力量。

一 坚持政府主导、多元办学

中国实施教育优先发展战略,把职业教育摆在经济社会发展中的 突出位置,高度重视、加快发展,用好政府"有形之手"与市场"无形 之手",在政府强力推动下,形成社会力量深度参与的多元办学格局。

——强化政府主导。中国政府履行发展职业教育的重要责任,将 发展职业教育纳入国民经济和社会发展规划,与促进就业创业和推动 发展方式转变、产业结构调整、技术优化升级等整体部署统筹实施,财 政资金优先保障职业教育投入,公共资源优先满足职业教育和人力资 源开发需要。国家制定发展规划、方针政策和基本标准,推出了一批 引领发展的示范性项目。国家层面建立中央教育工作领导小组、国务 院职业教育工作部际联席会议等工作协调机制,统筹协调全国职业教 育工作,国务院教育行政部门负责职业教育工作的统筹规划、综合协调、 宏观管理,其他有关部门在国务院规定的职责范围内,分别负责有关的 职业教育工作。省、自治区、直辖市人民政府负责本行政区域内职业教 育工作的领导。央地协同、地方为主的管理机制日趋优化,在强调国家 宏观管理的基础上充分尊重基层首创,全方位推动职业教育发展。

——鼓励多元办学。国家实行统一的准入制度,支持社会力量广泛、 平等参与职业教育,鼓励社会力量以资本、知识、技术、管理等要素参 与职业教育,各类主体兴办的职业学校具有同等法律地位,企业独立办 学、集团化办学、混合所有制办学成为职业教育办学的重要形式。有 关行业主管部门、工会和中华职业教育社等群团组织、行业组织、企业、 事业单位等依法履行实施职业教育的义务,参与、支持或者开展职业教 育。多元办学丰富了职业教育资源,释放了市场活力,增强了职业教育 的适应性。

二 坚持立德树人、德技并修

培养什么人是教育的首要问题。中国职业教育坚持立德树人,把 育人和育才相统一,致力于培养高素质技术技能人才、能工巧匠、大国 工匠。

一强调育人和育才相统一。人无德不立,育人的根本在于立德。
中华民族历来崇尚道德修为,认为"德者,才之帅",重视人的品德塑造。职业教育继承和发扬中华民族崇德的传统,关注学生全面成长成才,将社会主义核心价值观培养融入人才培养全过程。深入推进课程思政,推动专业课与思政课同向同行,传授基础知识与培养专业能力并驾齐驱,理论与实践并重,技术与人文融通,保证职业教育学习者实现德智体美劳的全面发展。

一强调职业精神与技术技能培养相融合。国家大力弘扬工匠精神,
着眼学生未来的职业发展以及社会和企业对职业人的素质要求,在课程开发、教学标准制定、职业能力规范之中融入职业精神培养要求,增强学生的职业认同感、自豪感,使每一个学生掌握技术技能的同时,树立正确的劳动观点和劳动态度,养成爱国敬业、诚实守信、勤勉尽责、精益求精、追求卓越、敢于创新等道德素养和工匠精神。

三 坚持产教融合、校企合作

中国把产教融合、校企合作作为重要的产业政策与教育政策,融入 经济转型升级各环节,贯穿职业教育人才开发全过程。

——以产教融合作为发展职业教育的基本路径。各级政府同步规 划职业教育与经济社会发展,将教育优先、人才先行融入各项政策。统 筹职业教育和人力资源开发的规模、结构和层次,面向产业和区域发展 需求,优化职业教育资源布局,加快人才培养结构调整,促进教育和产 业联动发展。强化政策引导,以城市为节点、行业为支点、企业为重点, 建设了一批产教融合试点城市,打造了一批引领产教融合的标杆行业, 培育了一批行业领先的产教融合型企业,促进教育链、人才链与产业链、 创新链有效衔接。

——以校企合作为办学的基本方式。在招生就业、人才培养方案 制定、师资队伍建设、专业规划、课程设置、教材开发、教学设计、教 学实施、质量评价、科学研究、技术服务、科技成果转化以及技术技能 创新平台、专业化技术转移机构、实习实训基地建设等方面,相关行业 组织、企业、事业单位与职业学校等建立了合作机制。专业设置与产业 需求对接、课程内容与职业标准对接、教学过程与生产过程对接,企业 深度参与人才培养全过程。引企驻校、引校进企、校企一体,企业与职 业学校共建共享生产性实训基地。各行业组织参与制定职业教育专业 目录和相关职业教育标准,开展人才需求预测、职业生涯发展研究及信 息咨询,促进人才培养信息对称、供需对接。

四 坚持面向实践、强化能力

实践是职业教育区别于其他类型教育的显著特征。中国职业教育 遵循技术技能人才的培养规律,坚持产业、行业、企业、职业、专业 "五业联动",创新教学模式,培养造就支撑发展的高素质劳动大军。

——以工学结合、知行合一为人才培养的核心理念。中国职业教育实施以实践为主体的教学模式,将学校教育与生产劳动、社会实践相结合,校企共同研究制定人才培养方案,按照生产实际和岗位需求设计课程,开发模块化、系统化的综合实训课程体系,实践性教学学时占总学时数的50%以上。推广工程实践创新项目教学、案例教学、工作过程导向教学模式,学中做、做中学,强化教学、学习、实训相融合的教育教学活动,提升学生实践能力。

一一建立"学历证书+能力证书"的双证书制度。中国实施劳动 者在就业前或者上岗前接受必要的职业教育的制度,实行学历证书及 其他学业证书、培训证书、职业资格证书和职业技能等级证书制度。学 历证书全面反映学校教育的人才培养质量,职业技能等级证书反映职 业活动和个人职业生涯发展所需要的综合能力,促进教学标准和职业 标准对接。鼓励职业学校学生在获得学历证书的同时,积极取得多类 职业技能类证书,拓展就业创业本领。

——推行中国特色学徒制。中国特色学徒制基于学校、企业深度 合作,以师带徒为主要教育关系、以工作场所学习为主要学习方式,是 校企协同培养技术技能人才的主要模式。在技术性、实践性较强的专 业实施学徒制,通过推进招生招工一体化、深化工学结合人才培养模式、 加强专兼结合师资队伍建设等措施,实现职业教育教学过程与生产过 程相对接,校企供需匹配、学生在岗成才。

36 第三篇 守正创新: 中国职业教育制度模式

五 坚持面向市场、促进就业

中国不断优化职业教育结构与布局,升级人才培养体系,提升就业 创业能力,促进学生充分就业、高质量就业。

一专业设置紧密对接市场需求。中国强化就业市场对人才供给的有效调节,职业学校专业发展与产业发展动态对接、同频共振。职业教育专业实行整体规划、动态调整、自主设置。专业目录五年一大修、每年动态更新,除本科专业和国控专业外,职业学校依据区域发展和市场需求自主开设目录内专业,并可申请开设目录外专业。

——培养内容紧密对接就业岗位。职业学校对接新经济、新业态、 新职业,及时将新技术、新工艺、新规范等产业先进元素纳入教学标准 和教学内容。瞄准技术变革和产业优化升级的方向,准确定位人才培 养规格,科学制定、严格实施人才培养方案,培养适应高端产业和产业 高端需要的高素质技术技能人才,服务中国产业走向全球产业中高端。 职业学校在开展技术推广、扶贫开发、劳动力转移培训和社会生活教育 中,将培训内容与就业岗位无缝衔接,推动培养对象更加充分更高质量 就业。

六 坚持面向人人、因材施教

职业教育是重大的民生工程,在服务学生就业创业、社会技能提升、 终身发展等方面发挥不可替代的重要作用。

——面向适龄青年和各类群体提供多样化服务。职业教育坚持有教无类、因材施教,为不同学生提供公平、适合的选择,努力使不同性格禀赋、不同兴趣特长、不同素质潜力的学生都接受符合自己成长需要

的教育。面向社会大众打开学校大门,除了适龄学生外,未升学初高中 毕业生、农民、新生代农民工、退役军人、在职员工、失业人员等各类 群体,都可接受灵活多样的职业教育和培训,营造了人人皆可成才、人 人尽展其才的良好社会环境。2019年以来,高职教育连续三年扩大招 生规模,共扩招413万多人,社会生源占在校生比例达28%左右。

——促进各种类型教育的学习成果融通、互认。基于国家职业教育学分银行,统筹学校教育和非学校教育、正规学习与非正规学习、成人教育与职业培训等在内的各种类型的教育与培训,制定各类学习成果认定标准、学分标准、学分积累办法,为学习者提供能够记录、存储学习经历和成果的个人学习账户,实现各种成果相互可比、可衔接、可携带,保障技能学习的社会价值。



搭建合作交流平台,与世界共享中国职业教育改革成果是我们的 美好愿景。中国将一以贯之地坚持对外开放,以国际视野兼容并蓄,以 国际胸怀开放合作,深度融入世界职业教育改革发展潮流,积极构建国 际化交流平台,致力消除贫困、增加就业、改善民生,在力所能及的范 围内承担更多责任义务,为全球教育治理贡献中国方案,为推动构建人 类命运共同体贡献教育力量。

一 增进职业教育未来发展新共识

坚持开放合作、互利共赢,创新共享开放理念,加快职业教育数字 化转型、绿色人才培养和技能供给,不断增强职业教育适应性。

——凝聚数字职教共识,践行数字职教理念,加快数字化转型。将数字化视为本国促进社会公平、就业公正的优先战略领域,加大优质数字技能开发应用,助力落后地区和弱势群体的数字化能力建设。推动数字职教共商共建共享,合作制定职业教育数字化建设标准,开发数字化职业教育课程,共享职业教育优质资源。合作推动"一带一路"沿线国家和地区数字化技术应用和普及,加大数字技能供给,将数字素养纳入职业教育核心能力加以培养。顺应数字化时代的发展需要,探索数字产业人才培养新模式。

——响应绿色经济发展需要,扩大绿色技能人才供给。将职业教育绿色转型发展视为优先事项。把职业教育绿色发展列入国家规划、 地方政府政策和职业教育机构业务范围,谋划职业教育绿色发展实施 路径,并将其纳入课程、教材、教学、考核、评价的各个环节。持续优 化职业教育专业规划、培养模式、人才规格等,为绿色经济发展提供更 有力的人才支撑。开展实施职业教育绿色技能开发国际协作项目,构 建碳达峰、碳中和绿色技能开发国际协作平台。

——面向人人,服务人人,提高职业教育开放共享水平。及时响应 全体社会成员参与社会劳动、融入社会生活的个性化和多元化的需求, 加大对女性人员、失业人员、青年未就业人员、残疾人员等弱势群体改 善生活处境的支持,增进社会公正和社会团结,增强社会发展韧性。关 注个体终身学习和生涯发展的需求,平衡职业教育的可迁移技能、软 技能和专业技能,优化政策和机制供给,为增进各国民生福祉作出新 的贡献。

二 扩大职业教育国际合作朋友圈

鹿鸣得食而相呼,伐木同声而求友。中国将搭建更多合作平台,开 辟更多合作渠道,开展多方务实交流对话,促进各国职业教育繁荣发展。

一一建立互学互鉴、共商共享合作机制。牵头举办世界职业技术 教育发展大会,逐步将大会打造成职业教育领域具有重要国际影响力 的机制性会议。同期办好世界职业院校技能大赛、世界职业教育产教 融合博览会,发起成立世界职业技术教育发展联盟,建立职业教育国际 合作激励机制,促进职业教育改革新成果更广泛地惠及人类发展。积 极参与中非合作论坛、中国一东盟(10+1)、金砖国家等合作机制,扩 大合作交流范围,增进理解、分享经验、促进发展。

——实施职业教育服务国际产能合作行动。不断加大与"一带一路"沿线国家、东盟成员国、澜湄流域、非洲国家的合作,聚焦高铁、通信、智能制造、航空航海、农业技术等领域,构建职业教育服务国际产能合作框架,实施职业教育服务国际产能合作行动,有序优化职业教育资源投放精准性,积极探索中国企业与职业学校合作开展海外办学,

推动职业教育与中国企业一道"走出去"。优先推动德国先进职业教育 合作项目(SGAVE)、中德"工业 4.0"产教融合项目、中瑞智能制造创 新实践基地建设项目、中瑞 ABB 产业数字化产教融合项目、法国施耐 德电气绿色低碳产教融合项目、中非职业教育产教融合、未来非洲一中 非职业教育合作计划,团结世界各国合力应对人类共同挑战,为促进产 教融合、拉动就业、减贫脱贫提供系统性、高质量的中国职教方案。

一促进国际组织间的职业教育多边对话。积极响应和参与国际 劳工组织、联合国教科文组织、世界银行及 OECD 等国际组织关于职 业教育的倡议和活动,帮助有需要的国家提高职业教育水平。呼吁多 边对话,加强协调沟通,积极参与发展面向新兴产业的职业教育、建设 包容开放的职业教育、制定技能发展战略等,在产业发展、技能开发、 稳定就业等世界普遍关注的议题上积极提供中国方案。

三 合作共铸人类技能开发大体系

新一轮技术革命对人们的素质结构、能力结构提出全新要求和挑 战,中国愿与世界各国共参共商,合作构建人类技能开发体系。

——打造"一带一路"职业教育合作升级版。中国将秉承《推进共建"一带一路"教育行动》精神,不断拓宽与"一带一路"沿线国家和地区的国际合作渠道,搭建国际化发展和交流的广阔平台。设立"一带一路"沿线国家职业教育产教协同创新中心,助推沿线国家企业与职业学校交流合作,加速科研成果合作与转化。建立沿线国家职业教育数据共建共享机制,推动职业教育网络教学和远程培训。共商共建区域性职业教育资历框架,推进就业市场的从业标准一体化。疏通合作交流政策性瓶颈,推进职业教育领域学分互认、学位互授互认、能力证书

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互通互认,促进技术技能人才国际流动。

一推进"中文+职业技能"国际化发展。充分尊重不同国家发展需求,推动国际中文教育与职业教育"走出去"融合发展。根据技能类别、适用人群、地域特点等因素,配合对外经贸交流和产能合作,开设形式多样、内容丰富的"中文+职业技能"特色课程,服务中国境外经贸合作区企业。发挥"中文+职业技能"国际推广基地作用,联合海外中资企业,因地制宜开发国别化职业技能标准和证书。重视科技赋能,打造网络智慧课堂,将"中文+职业技能"数字资源和课程纳入国际中文教育数字化平台和国家职业教育智慧教育平台统筹建设,帮助更多人掌握技能。

一一擦亮"鲁班工坊"中国名片。中国将坚持平等合作、优质优先、强能重技、产教融合、因地制宜的原则,坚持"鲁班工坊"品牌核心要义,坚持共研、共建、共享、共用、共赢,不断优化和完善"鲁班工坊"全球布局。完善"鲁班工坊"联盟建设机制。继续鼓励有条件的职业学校在海外建设"鲁班工坊",继续推动中国本土化、视野国际化的工程实践创新项目(EPIP)应用,发挥已建立的泰国、葡萄牙、埃塞俄比亚等国 EPIP 教学研究中心作用,给更多境外合作伙伴带去先进的教学模式、优质的教学装备。在推广应用已有国际化专业教学标准基础上,中外双方合作院校持续开发"落地"国际化专业教学标准、课程体系和教学资源,推进"鲁班工坊"的学历教育纳入合作国国民教育体系。完善"鲁班工坊"质量认证体系,构建起中国特色、世界水准的"鲁班工坊"标准模式,提升"鲁班工坊"对国际产能合作、合作国青年高质量就业的服务力和贡献度。

结束语

教育奠基未来,技术变革生活。在推动人类社会发展中,职业教育 前途广阔、大有可为。

中国的职业教育发展取得了显著成就,走出了一条具有中国特色的现代职业教育发展道路。但与支撑中国经济高质量发展的诉求相比,与人民群众日益增长的美好生活需求相比,中国职业教育依然需要博采众长地学习世界各国职业教育发展经验,需要不断地推动自身的改革创新、增强社会适应性。在全面建设社会主义现代化国家新征程上,中国将继续把职业教育摆在更加突出的位置,把类型特色作为发展之基,把数字化转型作为重要驱动,让职业教育成为引领发展、面向未来的社会发展引擎。

当前,面对新冠疫情的严峻挑战,全球经济发展仍然脆弱乏力。疫 情的常态化倒逼了产业结构和人们生活方式的变化,职业教育必须在 "顺势"和"求变"中发挥更大的经济和民生作用。抢抓机遇发展职业 教育,深入推进育人方式、办学模式、管理体制、保障机制改革,储备 强大的技术和人力资源。

孤举者难起,众行者易趋。人类是休戚与共的命运共同体,坚持共 建共享、合作共赢是破解世界各国发展困局的"对症良药"。中国愿意 同世界各国一道,开诚布公、互通有无,把职业教育作为传播技能、传 播文明、传播友谊的桥梁纽带,与世界各国齐心戮力、同向同行,携手 开创人类美好未来。



Preface

Vocational education is part and parcel of the national education system and human resources development. To develop vocational education has become an important strategic option for countries in the world in response to economic, social, environmental, employment and population challenges, among others.

Vocational education in China has a long history. The time-honored apprenticeship in China used to take the form of passing skills from father to son, or from master to apprentice based on contracts or sectors. As early as the mid-1990s, to seek self-strength and prosperity in China, a group of people of vision created the Fujian Shipbuilding Academy, which marked the formal start of modern vocational education in China. Vocational education has always been closely linked with the destiny of the country and the nation and the happiness of the family, shouldering the historic responsibility of delivering wellbeing to the people through pragmatic means.

Entering the new era, the Chinese government has attached great importance to vocational education, featuring it more prominently in socio-economic development as well as education reform and innovation. Over 70% of students in vocational education come from the rural area. "One person in vocational education means one person in employment and one household out of poverty". Vocational education has proved to be the most effective means to prevent poverty from passing down from one generation to the next, and has played a crucial role in China's efforts to fight the hard battles against poverty and to build a moderately prosperous society in all respects. Vocational education has assumed the important task of cultivating diversified talents, passing down technical skills, and promoting employment and entrepreneurship, making an outstanding contribution to supporting the transformation and upgrading of the national industrial structure, improving Chinese manufacturing and services, and safeguarding people's livelihood.

Through explorations and practice over the years, China has come up with a paradigm for the development of modern vocational education with distinctive features. It has been proven that to cater to the needs of economic and social development and industrial restructuring and to promote industry-education integration and school-enterprise collaboration constitute a driving force for the high-quality development of vocational education. To strike root in Chinese soil and apply it to national conditions to serve regional industrial development is what makes vocational education more adaptable. For vocational education to make a greater social contribution and win greater recognition, the fundamental means is to fulfill the primary task of cultivating virtues in the person, bring forth high-caliber technical personnel with both virtue and practical skills dedicated to lifelong learning, promote the seamless transition between the education chain, talent chain and the industrial chain and innovation chain, and facilitate employment and entrepreneurship.

"The ocean is vast because it embraces all rivers." The vigor and vitality of vocational education worldwide would not be possible without the mutual learning of different countries with their unique concepts and experiences. Amid the trend of economic globalization, no country can pursue the development of vocational education with its doors closed. Only through exchanges and dialogues can there be shared progress and breakthroughs. China stands ready to not only learn from advanced practices and experience of vocational development in other countries, but also share its experience with other countries. With more openness and a sense of responsibility, we will make greater contributions to the high-quality development of modern vocational education and the building of a community with a shared future for mankind.

This report is hereby released with the purpose of giving an account of the achievements in the development of vocational development in China, sharing the new measures and practices, and sending out the invitation for cooperation. Table of Contents

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Chapter I

Shared Development:

China's Vocational Education in the Modernization Drive

A great transformation in the history of human development, modernization is a process of promoting economic growth, revolution of thinking, institutional innovation and social transformation, with industrialization at its core. Chinese-style modernization is the modernization in a country with several thousand years of agricultural civilization and a massive population that covers multi-dimensions including economic, social, cultural and educational aspects, among others. Vocational education in China has been developed in sync with the modernization drive, with a role of serving economic development, improving people' s livelihood, optimizing the education system, and enhancing international exchanges, thus making irreplaceable contributions in the process of China' s modernization which faces the world.

I Supporting High-Quality Economic Development

China is accelerating its efforts for economic restructuring and industrial upgrading for a development path that is more efficient, equitable, sustainable and secure of higher quality. As the type of education that is most closely related to industries and serving the economy, vocational education has been playing an important role in human resources supply and productivity translation.

---Continuously providing the dividends of human resources for industries and the economy. Following closely the industrial chain, market signals, cutting-edge technologies and livelihood needs to adapt to economic restructuring and industrial transformation, vocational education in China now boasts over 1300 majors and over 120,000 major qualification points, covering various sectors of the national economy. Over the past decade, vocational education has cultivated 61 million highquality and highly-skilled personnel for various sectors. In sectors such as modern manufacturing, emerging industries of strategic importance and the modern service sector, over 70% of newly added labor forces at the frontline are graduates from vocational schools, thus releasing the population dividends, translating advanced technologies and equipment into real productivity, and providing fundamental guarantee and human resources for the strong vitality and smooth functioning of the industrial chain and supply chain in China.

---Providing leading force for accelerated development of the digital economy. With the IT application and smart transformation of industries, vocational education in China has followed closely cutting-edge digital technologies, kept the design of majors up-to-date, created a number of emerging majors, and improved the digital literacy of the students. Traditional majors have been upgraded, with majors fully digitalized from name to content so as to prepare students for the digital transformation. Efforts have been made to optimize major set-ups on 5G, artificial intelligence, big data, cloud computing, and the internet of things, with the focus on cultivating high-caliber professionals related to internet application technologies, and big data technologies and application to expand the supply of human resources with a high degree of digital literacy. Certificates of vocational skills in big data analysis and application, the maintenance and application of cloud-computing platforms, etc. have been developed and incorporated into the whole process of education and training in vocational schools. Joint training has been carried out between vocational schools and leading digital companies such as Huawei and Tencent to cultivate a large number of professionals with high digital skills to serve the goals of digitalizing industries and developing the digital economy.

---Providing service for "green technology" transformation of the ecological economy. China is accelerating low-carbon initiatives in various areas to preserve a sound ecological environment for the whole industrial chain. Vocational education has been involved in green skill development. Adding new majors such as green and low-carbon technologies and smart equipment and technologies for environmental protection, the supply of professionals skilled in green and low-carbon technologies has been expanded through vocational education. The concept of green and lowcarbon technologies has been incorporated into the system of standards for vocational education. Green technology skills have been included in the National Vocational Students Skills Competition. Green elements and concepts have been integrated into the whole process of vocational education. China has strengthened cooperation with international organizations on the development of green technologies. Through the APEC Project "HRD 01 2014 A Systematic Design of Green Skills Development in TVET", the concepts of green, environmentally-friendly, and sustainable development have been brought into the vocational education and training system.

II Promoting Coordinated Social Development

As an important means of increasing social mobility, preventing the stagnation of strata, and maintaining social vitality, vocational education has played an important role in satisfying people' s needs for the diversified development and promoting coordinated social development.

---Providing a passway to diversified development of the person. Guided by a grand education concept featuring openness, inclusiveness and integration, China has established a modern vocational education system that adapts to diversified development needs of the person and serves lifelong learning requirements with an integrated and holistic design, that provides opportunities for students of various characters, interests, and talents at different stages of learning so that everyone can make the best of their lives with bright prospects for education and career development. Every year around 300,000 ex-servicemen, to-beemployed workers, rural migrant workers and a new type of vocational farmers receive vocational education in China. The National Vocational Students Skills Competition is held for years on a roll to provide a stage for vocational students to show their talents and realize the values of their lives.

---Providing steps for high-quality employment. Following a marketoriented approach to serve development and promote employment, vocational education has followed industrial development closely. Training has been increasingly adapted to job prescriptions. The employment rate of vocational school graduates has been maintained at a high level, with that of secondary vocational schools and higher vocational schools surpassing 95% and 90% respectively. The major-to-job matching rate has been hovering steadily at over 70%. Vocational school graduates have occupied high-end industries and industrial high-ends. The income of higher vocational school graduates after half a year in employment is markedly higher than the average disposable income of urban residents.

---Providing a means to narrowing the wealth gap. Efforts have

been devoted to the development of vocational education targeting agriculture and the rural area. A quality system of resources for rural vocational education and training has been up and running. Over 5000 people per day among the new-type of professional farmers have received training by 15% of higher vocational schools, cultivating a large number of "rural experts", "rural creators", and "leaders in becoming rich" and effectively serving the system of modern rural industries. Over 70% of vocational students come from the rural area. Through vocational education, they have meaningfully promoted a new type of urbanization, constituting a thriving force for poverty reduction and rural revitalization. From 2013 to the end of 2020, a total number of over 8 million families have benefited from vocational education. "One person in vocational education means one person in employment and one household out of poverty". Vocational education has proven to be the most effective way to prevent poverty from passing down from one generation to the next. Vocational school graduates have become an important source of the middle-income group and an important force for rural revitalization.

III Serving High-Quality Education System

A high-quality educational system is the intrinsic requirement of educational modernization. As a type of education that is equally important as general education, vocational education is an important and vibrant part of building a high-quality educational system.

---An important aspect for optimizing the educational structure. With the further deepening of the new round of scientific and technological revolution and industrial transformation, countries have paid unprecedented attention to the coordinated layout of the whole industrial chain, with greater efforts for coordinated cultivation of R&D personnel, engineers, technicians, and professionals with varied skills. In recent years, China has taken vocational education as an important link to pursue major breakthroughs in optimizing the educational structure and carrying out comprehensive educational reforms, with improved quality, greater adaptability, and expanded scales. Vocational education has occupied half of the educational system in China in dynamic adaptability to the new economy, new technologies, new business forms and new occupations.

---A sure path to educational equality. China has always followed a people-centered approach. Vocational education has been taken as an important means to quality and balanced development of education in China for the goal that all the 1.4 billion population can have equal access to quality education. To ensure that everyone can have access to vocational education, the Chinese government has established a vocational education system that covers tuition exemption, subsidies, scholarships, student aid and student loans. For secondary vocational education, tuition exemption and aid have covered over 90% and 40% of students respectively, and those for higher vocational education nearly 30% and 25% respectively. Vocational education has made education and technological training of diversified forms available to people with disabilities or living in hardships, thus playing an important role in promoting coordinated development of vocational education, general education, special education, and continuing education.

IV Promoting International Exchanges and Cooperation

"A delicious soup is made by combining different ingredients." China' s vocational education faces the world, draws strength from both the East and the West, and continuously enhances itself through "bringing in" and "going global". As an important part of international economic, technological, and cultural exchanges and cooperation, it helps build an open economic system.

---Facilitating international production capacity cooperation. With the "going global" of Chinese businesses and products, to serve Belt and Road cooperation, China' s vocational education has established stable relations with over 70 countries and international organizations. With the joint establishment of 20 "Luban Workshops" in 19 countries and regions, and the launch of featured cooperation projects of "Chinese language plus vocational education" in over 40 countries and regions, a large number of local technical personnel and professionals have been cultivated who have a mastering of Chinese, and who are familiar with traditional Chinese culture and much needed by local Chinese businesses. Large numbers of vocational school teachers have travelled overseas to pass vocational skills and experience to local youth face-to-face, helping Belt and Road partners in cultivating technical professionals in their countries to propel their industrialization process.

---Promoting technological and cultural exchanges. China has actively participated in the World Vocational College Skills Competition to seek excellence through competition. Since joining the World Skills Organization in 2010, it has participated in five sessions of the World Vocational College Skills Competition and won a total number of 36 gold medals, 29 silver medals, and 20 bronze medals. The events it participates and the size of the Chinese delegation have been expanding on a continuous basis. Facing Europe, a China-Europe "dual system vocational education" platform has been created integrating industry with education. China has strengthened vocational education cooperation with competent companies in relevant areas in Germany, France, and Switzerland. It has established the C-CEEVEIL: China-Central Eastern Europe Vocational Education International League, a platform for cooperation with vocational schools of Central and Eastern European Countries. Facing Africa, the "China-Africa TVET Cooperation Program" has been launched and the "China-Africa TVET Cooperation Consortium" established, which have further strengthened contacts and exchanges with vocational schools in Africa. Facing Southeast Asia, the "China-ASEAN 100+100 Institutional Cooperation Flagship Programs" has been implemented, with 80 feature cooperation projects already identified. In 2022, China hosted the BRICS TVET Cooperation Alliance Conference, established the BRICS TVET Cooperation Alliance, and held BRICS Vocational Skills Competition, actively promoting exchanges and dialogues among BRICS countries on vocational education.

Chapter II

Consolidating the

Foundation:

Trajectory of China's Vocational Education Reforms
Since 2012, the Chinese government has put vocational education on the same bar with general education. With continuously increasing policy supplies, innovations in institutional design, and accelerated development of a modern vocational education system, a modern governance system of vocational education with diversified providers has taken shape. China' s vocational education has transformed from referring to general education to a relatively independent type of education, entering into a new stage of improving quality, seeking excellence and increasing added values.

I Define the Type of Vocational Education

In 2014, the State Council of China convened the National Conference on Vocational Education. Six ministries including the Ministry of Education released the "Plan on the Establishment of a Modern Vocational Education System (2014-2020)", which laid out the goal of establishing by 2020 a modern vocational education system with Chinese characteristics and world standards that meets the needs of development, integrates industry with education, sees a seamless transition from secondary to higher vocational education, connects vocational education with general education, and reflects the concept of life-long learning. The Ministry of Education launched the "Action Plan for the Innovative Development of Higher Vocational Education (2015-2018)" and the "Action Plan for Improving the Management Level of Vocational Schools (2015-2018)", which kindled the enthusiasm for vocational schools to improve the quality of their education.

In 2019, the State Council released the "Plan on the Implementation of Vocational Education Reforms", stating that "vocational education

is a different type of education from general education and assumes an equally important position". The document laid out the supporting pillars for institutional reforms of vocational education in China, and made available a number of substantial policy dividends. In 2020, nine ministries including the Ministry of Education released the "Action Plan for Improving the Quality of Vocational Education (2020-2023)", which further consolidated the working mechanism of macro state management, provincial-level coordination and guarantee, and independent implementation by schools. A total number of 4562 vocational schools from 31 provinces and the Xinjiang Production and Construction Corps signed up, with a total pledged investment of 307.5 billion RMB yuan. In 2021, the General Office of the CPC Central Committee, and the General Office of the State Council released the "Opinions on High-Quality Development of Modern Vocational Education", which had a systematic review of China's experiences of vocational education reforms and further consolidated the features of vocational education from the three perspectives of defining the type of vocational education, vertical integration of vocational education at various levels and horizontal integration of different types of education.

On May 1st, 2022, the revised "Law of the People' s Republic of China on Vocational Education" entered into implementation, stipulating that "vocational education is a type of education that is equally important as general education, which is part and parcel of the national education system and human resources development, and which constitutes an important means of cultivating diversified talents, passing down technical skills, and promoting employment and entrepreneurship. This marked that the system of modern vocational education has entered into a new stage of law-based development and that the "type" of vocational education has got legal safeguards.

Over the past decade, vocational education reforms have gone into greater depth, with explorations made on setting up a "college entrance system for vocational education", and implementing a separated admission system of "cultural quality plus vocational skills". The process of vocational education with its features has been further standardized. with specific requirements on the goals of education, curriculum design, credit hours, teaching and practice, graduation requirements, etc., thus providing fundamental benchmarks for the cultivation and quality assessment of technical professionals. A mechanism for internship management has been established, with clearly-defined content and boundaries, and targeted measures on internship management of vocational schools. Undergraduate vocational education has been incorporated into the existing Bachelor's Degree system, highlighting the features of vocational education in the authorization and conferring of the Bachelor's Degree. From top design to institutions and standards, a whole set of vocational education system with Chinese characteristics has been established covering student admission to graduation and future job prospects.

II Improving the Modern Vocational Education System

In recent years, China' s vocational education has actively adapted to the needs of socio-economic development, given equal importance to school education and vocational training, promoted horizontal integration of vocational education with general education and accelerated the building of a modern vocational education system that serves life-long learning of the people (Chart 1). Vocational education covers the stages of vocational enlightenment education, secondary vocational education, and higher vocational education. Vocational training covers various types including skills training, pre-job training, re-employment training, and staff training, among others. Based on the standards of vocational skills, vocational training falls into the categories of primary, secondary, and higher vocational training and other adaptive training. Enterprises, schools and social organizations can also provide vocational training.



Chart 1 Modern Vocational Education System

Vocational enlightenment education is carried out during primary education. Currently over 4500 secondary and higher vocational schools have supported primary and middle schools in carrying out labor education and practice as well as career enlightenment education. Nearly 110,000 primary and middle schools have been involved, with the participation of over 15 million students every year.

Secondary vocational education is provided by general secondary schools, secondary schools for adults, higher vocational schools and technical schools, which mainly admit junior middle school graduates or people with corresponding educational backgrounds. The term of education is mostly three years. In 2021, there were altogether 7294 secondary vocational schools in China (not including technical schools), with an admission of 4.8899 million and 13.1181 million on-campus students, accounting for 35.08% and 33.49% of total admission and on-campus students of senior middle school education respectively. Graduates of secondary vocational schools can continue to receive a junior college education, undergraduate education and post-graduate education.

Higher vocational education includes junior college education, undergraduate education and beyond. It mainly admits graduates of secondary vocational schools, general senior high schools and those with corresponding educational backgrounds. The term of education is generally three years for junior colleges and four years for colleges. In 2021, there were altogether 1518 higher vocational schools (including 32 vocational colleges), with an admission of 5.5672 million and 16.0303 million on-campus students. The number of vocational undergraduate and junior college students and on-campus students accounted for 55.60% and 45.85% of the total undergraduate admissions and on-campus students respectively.

In 2019, China began to launch the "Action Plan for Improving Vocational Skills". By 2021, over 50 million vocational skills training with government subsidies had been carried out. In 2019, the Chinese government established a special account of 100 billion RMB yuan for coordinating overall efforts to improve vocational skills from the surplus of the unemployment insurance fund. By far over 10,000 vocational schools nationwide have carried out hundreds of millions of training of various kinds. Among those providing training services for new-type of professional farmers, the annual training by 141 higher vocational schools has exceeded 5000 people per day, and that for 86 schools has surpassed 10,000 people per day.

III Enriching the Content of Vocational Education

China' s vocational education has moved from the expansion of scale to quality improvement and institutional optimization, with notable progress in standard setting, faculty building, school-enterprise coordination and IT-based digital practice.

---Establishing a national standard system for vocational education, which integrates majors, teaching, curriculum, internship and on-spot training. A catalogue of majors has been compiled which integrates secondary vocational education, higher vocational education and vocational undergraduate education in response to the emergence of new technologies, new business forms and new occupations. Standards have been published for 230 majors in secondary vocational education, 347 majors in higher vocational education, 51 on-spot training sites of vocational schools, 136 internship positions and 9 special equipment and apparatus operations. 497 standards have been published for occupational skills identification, together with training standards for over 60,000 sectors and 42 categories of enterprise training.

---Building a "double-qualified" faculty. The "Program on Improving the Quality of Vocational School Teachers" has been launched. A fourtiered training system has been up and running where the state provides guidance with overall implementation coordination at the provincial level and distinctive studies at individual schools, guaranteed by cities and townships. Since 2012, the central finance has had a total input of 5.3 billion RMB yuan, with a matching fund of 4.3 billion RMB yuan at the provincial level. Over 1.1 million vocational school teachers have participated in national or provincial-level training. In 2019, four ministries including the Ministry of Education listed 102 enterprises as the bases of practice for vocational school teachers. A total number of 537 projects on teachers' training and practice have been published in two batches on the National Smart Vocational Education Platform, which has served more than 20,000 teachers including national-level outstanding teams for teaching innovations. In 2019, the pilot work on the establishment of teaching innovation teams in vocational schools was launched. 364 such teams have been established in two batches, which led to the creation of over 500 provincial-level outstanding teams for teaching innovation, and over 1600 such teams at the school level. The model of module-based teaching through the sound coordination of teachers has gradually taken shape. Team capacity has thus been comprehensively enhanced. From 2012 to 2021, the number of full-time teachers in vocational schools increased from 1.11 million to 1.29 million,

an increase of 17%. The percentage of "double-qualified" teachers accounted for over 50% of teachers in vocational schools.

---Building a mechanism where both the enterprises and schools are major players in vocational education. Over the past decade, policies of various types have put enterprise-school collaboration high on the agenda, which supports vocational schools and enterprises in conducting cooperation through various means such as order-based training, modern apprenticeship, industrial colleges, and group-sponsored training and education. By 2021, around 1500 vocational education groups had been established, with the participation of over 30,000 enterprises and nearly 70% of vocational schools. Over 3000 industry-education integrated enterprises had been cultivated. Pilot work has been carried out for 21 cities featuring the integration of industry with education. Enterprises of the integrated type are entitled to preferential financial, fiscal, land and taxation policies such as tax reduction based on added educational values. Vocational schools and enterprises have jointly established 24,900 onspot training bases, an increase of 8.6% YoY. During the 13th Five-Year-Plan period, 558 modern apprenticeship sites were laid out throughout the country, covering 501 vocational schools and over 1000 major qualification sites, and benefiting over 100,000 students. Pilot work was carried out in 22 provinces for a new type of apprenticeship, with the participation of 158 enterprises, cultivating nearly 20,000 staff under the new apprenticeship model, among whom 3670 turned into formally employed staff.

---Promoting digitalization of vocational education. In recent years, China has vigorously promoted IT application in vocational education, with notable progress made in the building of information infrastructure, the development of digital educational resources, as well as human resources training and management system application, thus accelerating the digitalization process. Over 90% of vocational schools have made available smooth and fully functional campus internet. Over 85% of vocational schools have met the digital campus standard. A number of online-course platforms have been set up. 203 national-level teaching resources databanks have been established, covering 992 premium open classes of 12 disciplines such as the liberal art, engineering, agriculture and medicine available on the internet and 2886 premium national-level shared classes. In 2022, China implemented the "Strategic Action Plan for Education Digitalization". The National Smart Vocational Education Platform was formally launched online, which has pooled together 1200 databanks, 6600 online premium classes, and over 2000 video open classes, with users in every province of the country and over 180 countries and regions. As the result, with the support of digital technologies, students could continue their education during school closures.

IV Building a Governance System of Multi-Player Coordination

The principles of education governance featuring the separation of management, operation, and evaluation have been established by Chinese government, which have clearly defined the relations of power and responsibility between governments, schools and society, and improved the ecology for vocational education. A systematic, scientific, and fullyfunctioning system has been set up, with clearly-defined boundaries and active roles of multi-players.

---Enhancing the role of overall coordination and management by the government. Reforms have been deepened to transform government functions from "overall management" to "supervision and guidance". In 2012, the "Regulation on Education Supervision and Guidance" was released, which clearly defined the role of government as supervision and guidance in the area of education. In 2016, the "Interim Regulations on the Evaluation on the Operating Capabilities of Secondary Vocational Schools" and "Interim Regulations on the Evaluation of Higher Vocational Schools' Capabilities to Meet Social Development Needs" were released. Three rounds of school evaluation were carried out in 2016, 2018, and 2020. In 2017, the "Regulations on the Evaluation of Fulfillment of Responsibilities in Education by Provincial-Level People's Government" was released, making "accelerating the development of modern vocational education" an important part of the evaluation. Starting from 2018, evaluation has been carried out every year to see to it that people' s governments at the provincial level fulfill their responsibilities concerning education. In 2020, the "Opinions on Reforms of Education Supervision and Guidance Systems and Mechanisms in the New Era" was published, which established the education evaluation and monitoring mechanism with the overall management of education supervision authorities and multi-player participation.

---Emphasizing sector-wise self-discipline and active participation. Attention has been given to give full play to sector-wise guidance and the major role of enterprises in the operation of vocational schools. Information on industrial planning and human resources requirements has been released on a regular basis, guiding schools to follow market demand and the employment situation closely and dynamically readjust the catalogue of majors. In 2010, work started on the establishment of the Steering Committees for Vocational Education for Various Sectors Nationwide (hereinafter referred to as the Steering Committees). After five rounds of adjustments and changes of terms, there are currently 57 Steering Committees for various sectors, which have altogether published 60 guiding reports on future human resources requirements and major set-up forecasts. 44 Steering Committees have led the efforts to formulate teaching standards for vocational education. Over the past five years, with the guidance of the Steering Committees in various sectors, enterprises and vocational schools have worked together in developing over 8000 courses, and compiling over 6000 textbooks. Enterprises of various sectors have contributed over 150 billion RMB yuan worth of training equipment and facilities and over 6 billion RMB yuan of construction costs. Over 80,000 enterprise staff have worked part-time at vocational schools. Over 230,000 vocational school teachers have had on-site practice in enterprises.

---Improving autonomous capabilities of school operators. Great autonomy has been given to vocational schools in their school operation. Efforts have been rolled out to guide a modern school system based on charters to stimulate the vitality and initiative of schools. In 2013, explorations started on an exam and admission system of "knowledge plus skills", to improve the various means of exams and admissions such as admission based on grades of college-entrance exams, independent tests, comprehensive assessment, skills tests, seamless transition from secondary vocational school to higher vocational school, and test-free admissions. A system of exams and admissions with Chinese characteristics featuring overall management of provincial-level government, independent choice of students, diversified school admission, and effective social supervision has been established. A mechanism of record-keeping of the major set-up of higher vocational schools has been established. Higher vocational schools have the autonomy to set any major on the guiding catalogue. Starting from 2015, work began to roll out on the diagnosis and improvement of vocational school education to further improve the self-guarantee system for education quality and effective operation, and see to it that vocational schools shoulder the primary responsibilities for education quality.

---Building a social supervision system. The role of evaluation by various stakeholders has been brought into full play to guide the sound development of vocational education. By using third-party evaluation, quality evaluation of human resources cultivation is carried out on a regular basis. With the functions of monitoring and evaluation as well as forecast and pre-warning, the capacity for dynamic monitoring of education has been improved. Localities are encouraged to explore the establishment of a region-wide comprehensive education evaluation system based on big-data technologies, so as to further improve teaching quality monitoring. With attention to quality analysis and result feedback, the strengths and problems in the operation of vocational schools will be identified through all-dimensional targeted diagnosis. Starting from 2012, an annual report on the quality of higher vocational education has been published. Starting from 2016, an annual report on the quality of secondary vocational education has been published. The contents of the reports have been improved every year, with the quality awareness of vocational schools markedly increased.

V Increasing Input into Vocational Education

Fiscal input into vocational education at various levels has been increased. The system of fiscal input has been improved based on school scale, the cost of training, and the quality of education. Social capital has been fully tapped to develop modern vocational education. Nongovernmental players have been encouraged to join the forces in providing vocational education.

---Giving full play to the guiding role of public finance. Financial authorities at various levels have given priority to vocational education, with more educational expenditure on vocational education. During the 13th Five-Year- Plan period, a total of 2.4 trillion RMB yuan was put into vocational education in China, an annual increase of 7.8%, of which fiscal allocations on vocational education reached 1.84 trillion RMB yuan, an increase of 8.6%. The percentage of fiscal allocation on vocational education in overall vocational education input has been on the increase every year. The mechanism for fiscal allocation of vocational education per student has been continuously improved. The mechanism of fiscal allocation per student for secondary and higher vocational education has been established in every province of China. By the end of the 13th Five-Year-Plan period, the average fiscal allocation for secondary and higher vocational students had reached 16,000 RMB yuan. National student aid had covered more than 5.8 million secondary and higher vocational students. Total fiscal input reached around 11.9 billion RMB yuan, with the major beneficiaries being students from the 11 concentrated poor regions and students of registered poor households.

---Non-governmental players are encouraged to provide whole or

partial vocational education. SOEs (state-owned enterprises) and private capital have become important forces for vocational education. A total of 435 SOEs have set up institutions of vocational education, including 197 central enterprises and 238 local enterprises. There are currently 337 higher vocational schools operated by non-governmental forces, with 3.23 million on-campus students. There are 2.49 million on-campus students in non-governmental secondary vocational schools. Explorations have been made by Chinese government to carry out pilot work on sharingholding reforms and mixed-ownership reforms of vocational education. For instance, Shandong province took the lead in publishing the "Guiding Opinions on Mixed-Ownership Vocational Schools (Interim)", with clear stipulations on the forms of school operation, thresholds for school initiation, and management requirements. 47 vocational schools in the province have carried out mixed-ownership reforms, driving up over 10 billion RMB yuan of social capital input.

---Implementing projects with amplifying effects. Since 2006, the Chinese government has made a total input of over 500 billion RMB yuan in a series of major projects including the plan for national-level demonstration (backbone) higher vocational education institutes, the plan for demonstration secondary vocational schools for education reforms, the project to improve the capacity of higher vocational schools to provide professional services for the development of industries, and the program to meet operation standards for vocational schools. With such support, 199 national-level demonstration (backbone) higher vocational schools, 1000 demonstration secondary vocational schools for education reforms, 197 schools under the "program for high-level higher vocational schools and major set-up with Chinese characteristics", and over 3000 on-spot training bases have sprung up, which has greatly improved the conditions for vocational schools and guided the content-intensive development of vocational education in China.

Chapter III

Stay Grounded and Striving for Innovation:

Systems and Modals for Vocational Education in China

Vocational education is part and parcel of the national education system and human resources development in China. Fully tapping into the institutional strength of socialism with Chinese characteristics, combining government guidance with market orientation and growing the economy with serving people' s wellbeing, linking education with industries, a system for the development of modern vocational education has been established, and a Chinese model for the development of vocational education has taken shape, which has injected strong impetus for Chinese-style modernization.

I Adhering to Government Guidance and Multi-Player Operation

With the development strategy of putting education front and center, China has put vocational education high on the agenda of economic and social development. Attaching great importance to vocational education and making good use of both the "visible hand" of government and the "invisible hand" of the market, a paradigm of diversified vocational education operation has taken shape with strong government pushing and deep participation of social forces.

---Emphasizing government guidance. The Chinese government has shouldered the important responsibility of developing vocational education, incorporating vocational education into overall plans for national socio-economic development in its overall efforts to promote employment and entrepreneurship, the transformation of development modes, industrial restructuring, and technological upgrading. Fiscal allocations have favored vocational education and public resources have prioritized meeting the needs of vocational education and human resources development. The government has formulated development plans, policies and basic standards and rolled out a number of demonstration projects. A central leadership group on education has been set up at the national level, with the joint inter-ministerial mechanism of coordination on education established by the State Council, providing overall coordination on the development of vocational education in China. Educational and administrative authorities of the State Council are in charge of overall planning, comprehensive coordination, and macro management for vocational education. Other ministries of the State Council fulfill their defined functions concerning various aspects of vocational education. People's governments at the provincial, autonomous region and municipality levels are responsible for vocational education development within their jurisdictions. A mechanism of central government-local government coordination with the localities playing a major role has been improved. On the basis of macro-state management, the initiatives of localities have been fully respected to promote the development of vocational education in all respects.

---Encouraging diversified providers of vocational education. With a unified system of admission threshold, various non-governmental forces are supported to participate in vocational education on an equal footing through various means such as the input of capital, knowledge, technology, or management. Vocational schools by various stakeholders enjoy the same legal status. Vocational schools independently run by enterprises, or operated by enterprise groups or in mixed-ownerships have become important forms of vocational education. Relevant sector-wise authorities, trade unions, the National Association of Vocational Education of China, sector organizations, enterprises, and public institutions shoulder responsibilities for vocational education according to law with their participation, support or operation. Multi-stakeholder provision of vocational education has enriched the resources of vocational education, released market vitality, and increased the adaptability of vocational education.

II Cultivating Virtues and Attaching Equal Importance to Virtues and Skills

What kind of people should we cultivate is the primary question for education. Vocational education in China has always adhered to the cultivation of virtues and combined the cultivation of virtues with the training of skills, with the purpose of cultivating high-quality technical professionals and prominent craftsmen.

---Combining the cultivation of virtues with the training of skills. Education will come to no avail without the cultivation of virtue. The fundamental purpose of education is to nurture virtuous people. The Chinese nation has always valued morality and good conduct, believing that "virtue is the most valued quality among all talents." The Chinese tradition of valuing virtue is inherent and reflected in vocational education, with its focus on the all-round development of students, integrating the core socialist values into the whole process of the cultivation of talents. Efforts have been made to press ahead with political and ideological education, with major-related courses and political courses reinforcing each other. Attention has been paid to combining fundamental knowledge with professional capabilities, theories with practice, and technical skills with cultural quality, so as to ensure that students of vocational education can have a sound and all-round moral, intellectual, physical, and aesthetical grounding with a hard-working spirit.

---Stressing the integration of professional ethics with technical skills. Calling for great craftsmanship, focusing on future career development of vocational students, and in response to the intrinsic requirements of the society and enterprise on technical professionals, the state has raised the requirement of integrating the cultivation of professional ethics in curriculum development, standard-setting for teaching, and standardized definition of professional capabilities. As a result, a large number of students that are patriotic, professional, hardworking with moral integrity have been cultivated that have a sense of belonging and fulfillment in their profession and assume a right attitude to labor while mastering certain skills in a relentless pursuit for excellence, innovation, and craftsmanship.

III Adhering to Integration of Industries with Education in School-Enterprise Partnerships

China has taken it as an important industrial policy and education policy to integrate industry with education and to promote schoolenterprise partnerships, reflecting it in every aspect of economic transformation and the whole process of human resources development in vocational education.

---Taking industry-education integration as a basic route to the development of vocational education. Governments at various levels have planned vocational education in sync with economic and social development, integrating the principle of education-first and talentfirst in various policies. Efforts have been made to coordinate vocational education with the scale, structure and levels of human resources development. Facing the needs of industries and regional development, the lay-out of vocational education resources has been optimized to accelerate structural readjustment for human resources development, which has facilitated the integrated development of education and industries. Guided by relevant state policies, taking the cities as the key links and various sectors as pillars, a number of pilot cities have been identified exemplifying in the integration of industries with education with the focus on enterprises. A group of leading sectors promoting industryeducation integration have emerged. A myriad of enterprises leading in industry-education integration have stood out. Such efforts have promoted the seamless transition of the education chain and the talent chain with the industrial chain and the innovation chain.

---Taking school-enterprise cooperation as the basic means for running vocational schools. Relevant sector-wise organizations, enterprises, public institutions and vocational schools have established cooperation mechanisms in terms of admission and recruiting, human resources development planning, building contingents of faculties, major planning, curriculum design, textbook development, teaching design, teaching implementation, quality assessment, scientific research, technical services as well as the new platforms for translating scientific findings into tangible outcomes and for technological innovation, and the building of institutes for technical transfer and on-spot training bases. Matching major set-up with industrial demands, curriculum design with professional standards, the teaching process with the production process, enterprises have been deeply involved in the whole process of human resources development. Enterprises are brought into schools and vice versa, with both jointly establishing training bases of a manufacturing nature. Sectorwise organizations have been involved in the formulation of major catalogues and professional standards, as well as consultative services of human resources demand forecasts and career development, which has brought the supply of human resources more tailored to market demands based on informed decision-making.

IV Stressing Practice-Orientation and Capabilities

Practice is what sets vocational education apart from other forms of education. The laws governing the cultivation of technical personnel and professionals have been followed in China' s vocational education with the five-pronged integration of industry, sector, enterprise, occupation and major. Innovative teaching models have emerged, and a large number of high-quality labor force have been cultivated that support the development of the country.

---Adhering to the core concept of combining theoretical knowledge with practical skills. China has adopted a teaching model of taking practice as the mainstay, and combining school education with practical skills and social practice. Schools and enterprises work in partnerships in formulating human resources training schemes. Curriculums are designed based on the needs of production and specific positions. Module-based systematic training systems have been developed, with practical teaching accounting for over 50% of total credit hours. Teaching models based on projects, case studies and the working processes are scaled up, with the purpose of learning while doing and doing while learning. The teaching activities stress the integration of teaching, learning, and on-spot training so as to improve the practical capabilities of students.

---Establishing a dual system of "academic degree plus capability certificate". In China it is imperative for workers to acquire necessary vocational education before employment or taking positions, supported by a system of academic degree, training certificate, professional qualifications certificate and vocational skills certificate. Academic degrees comprehensively reflect the quality of cultural education. Vocational skills certificates reflect the comprehensive capabilities needed for vocational activities and career development, promoting the alignment of teaching standards with professional standards. Vocational students are encouraged to acquire vocational skills certificates of various kinds on top of degrees to improve their employability and entrepreneurial skills.

---Adopting a system of apprenticeship with Chinese characteristics. The Chinese-style apprenticeship is based on in-depth cooperation between schools and enterprises, featuring the major relationship of masters guiding apprentices, mainly taking place in real workplaces. It is the primary model of cultivating technical personnel with schools and enterprises working in partnership. Apprenticeship is recommended for highly practical and technical majors. Through integrating school admission with factory recruitment, deepening the collaboration between factories and schools, and building faculties with both full-time and parttime teachers, the teaching process of vocational education has dovetailed with the manufacturing process, which provides more suitable workforce who are better prepared with needed skills and qualifications.

V Facing the Market and Promoting Employment

Through continuously optimizing the structure and layout of vocational education, China has upgraded the system for the cultivation of human resources, improved the employability and capability of students, and promoted full and high-quality employment of students.

---Matching major set-up with market demands. China has emphasized the role of effective adjustment of human resources supply based on job market changes. The majors of vocational schools have evolved with the dynamic development of industries. The set-up of majors in vocational education has followed the approach of overall planning, dynamic adjustment and autonomous decision-making. The catalogue of majors would undergo a large-scale overhaul every five years, with minor adjustments every year. In addition to undergraduate majors and statecontrolled ones, vocational schools have the discretion to set up majors within the catalogue or apply for extra-catalogue majors.

---Matching the content of teaching with future employment positions. Vocational schools follow the new economy, new business forms and new occupations closely and include new technologies, new techniques, and new norms into teaching standards and curriculums in a timely fashion. Focusing on the direction of technological transformation and industrial upgrading, efforts have been made to clearly define talent cultivation standards and come up with scientific and strictlyfollowed human resources training schemes, so as to cultivate highquality and highly-skilled talents that can meet the requirements of highend industries and high-end needs of industries. Vocational schools have dovetailed training with the requirements of employment positions to ensure their seamless transition in terms of technology spreading, poverty alleviation, training for labor transfer and social life education, with the purpose of promoting more adequate and higher-quality employment.

VI Serving Each Individual Based on Specific Conditions

Vocational education is an important livelihood project, playing an irreplaceable role in improving the employability and entrepreneurship of students, social skills uplifting, and their lifelong development.

---Providing diversified services for age-appropriate youth and various other groups. Believing that education shall be based on individual needs and shall not be uniform, vocational education tries to provide students with equitable and suitable options, so that students of different characters, interests and potentials can all have the education they need. The door of vocational schools is open to everyone, not limited to age-appropriate students only. Junior and senior middle school graduates, farmers, rural migrant workers, ex-servicemen, staff already in employment, and the unemployed all have access to vocational education and training through flexible means in an environment where everyone can bring their potential into full play. Since 2019, higher vocational schools have expanded their enrollment for three consecutive years, with an expanded admission of 4.13 million, among whom 28% are not graduates directly from secondary education.

---Promoting the integration and mutual recognition of various types of education. Based on the national credit bank for vocational education, a system of recognition standards, credit standards and credit accumulation has been established that covers various types of education and training including both school education and non-school education, formal learning and informal learning, adult education and vocational training. As a result, everyone can have a learning account that keeps a record of what has been learned and achieved, so that each learning experience can have social value and the achievements of learning are comparable, portable and linked with one other. Chapter IV

Openness and Sharing:

Cooperation and Prospects Facing the World

It is our vision to build platforms for exchanges and cooperation to share with the world the outcomes of vocational education reforms in China. China will unswervingly uphold opening up with an international vision and an open mind, and get deeply involved in the currents of reforms of vocational education worldwide. With active efforts to build platforms for international exchanges and committed to poverty reduction, job increase, and livelihood improvement, China will shoulder more responsibilities and obligations to the best of its ability and contribute Chinese solutions to global education governance and the fostering of a community with a shared future for mankind from the angle of education.

I Building New Consensus on the Future Development of Vocational Education

Guided by the concept of opening up featuring open cooperation, mutual benefit, innovation and sharing, China has sped up the digital transformation of vocational education, taken a green approach to human resources development and skills supply, and continuously made vocational education more adaptable.

---Building consensus on and implementing the concept of digital vocational education, China has accelerated its digital transformation. Taking digitalization as a prioritized area of strategic importance for social fairness and fair employment, China has expanded the development and application of quality digital technologies and helped backward regions and vulnerable groups in digital capacity building. In the area of vocational education, China has pursued joint consultation and shared results, setting digital standards for vocational education through cooperation, developed digital courses for vocational education, and promoted the sharing of quality resources of vocational education. China has worked with Belt and Road partner countries and regions in the application and availability of digital technologies, increased the supply of digital skills, and cultivated digital literacy as a core capability in vocational education. Following the development needs of the digital era, new models have been explored for the cultivation of digital industry talents.

---Responding to the development needs of the green economy and expanding the supply of talents with green skills. Green transformation of vocational education has been taken as a priority. Green development of vocational education has been incorporated into national plans, regional government policies and scope of responsibilities for institutes of vocational education. Great efforts have gone into the studies on the routes to the green development of vocational education, integrating it into courses, textbooks, teaching, evaluation, assessment and other related aspects. The planning of majors, training models and definition of talents pertaining to vocational education have been improved continuously, so as to provide strong human capital support for the development of the green economy. International cooperation projects on green skills development in vocational education to realize carbon peak, carbon neutrality, and green skills development.

---Facing each individual, serving each individual, and making vocational education more open and shared. Vocational education has responded to the individualized and diversified needs of the entire members of the society to participate in work and to integrate into social life, which has improved the circumstances for vulnerable groups such as

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women, the unemployed, youth, and people with disabilities and increased social resilience. Focusing on the needs of life-long learning and career development of individuals, efforts have been made to strike a balance between transferrable and soft skills with professional skills, optimize the provision of policies and mechanisms and make new contributions to improving the wellbeing of people of all countries.

II Expanding the Circle of Friends for International Vocational Education Cooperation

Friends of the same mind facilitate each other' s success. China will build more cooperation platforms, and create more cooperation channels to engage in practical exchanges and dialogues and promote the vigorous development of vocational education worldwide.

---Establishing cooperation mechanisms of mutual learning, joint consultation and shared results. China has led the efforts of the World Vocational and Technical Education Development Conference, gradually making it an institutionalized conference with international influence. Meanwhile, efforts have been continued on the World Vocational College Skills Competition, and the World Expo on the Integration of Vocational Education and Industry. The World TVET League was launched. Mechanisms galvanizing international cooperation on vocational education have been put in place to bring the benefits of vocational education reforms to the entire mankind. Vocational education has also been an important part of international cooperation mechanisms including the Forum on China-Africa Cooperation (FOCAC), China-ASEAN cooperation (10+1), and BRICS cooperation, with ever-expanding scope of cooperation, which has facilitated mutual understanding, experience sharing and joint development.

---Implementing action plans for international production capacity cooperation through vocational education. China has expanded cooperation with Belt and Road partner countries, ASEAN members, countries along the Lancang-Mekong Rivers and African countries, focusing on the high-speed railway, telecommunications, smart manufacturing, aviation, shipping, and agricultural technologies. A framework of vocational education serving international production capacity cooperation has been put in place. The action plan for serving international production capacity cooperation has been implemented. The projection of vocational education resources has been optimized in an orderly fashion. Trials have been made for Chinese enterprises and vocational schools to run schools overseas, thus facilitating the synchronized "going global" of Chinese vocational education and Chinese enterprises. Priority has been given to the SGAVE project with Germany, the "Industry 4.0" Project of Sino-German Alliance of Enterprises and Education, the MOE-Swiss GF Intelligent Manufacturing Innovation Base Construction Project, the MOE-Swiss ABB Digital Transformation Project for Integration of Enterprises and Education, the SE Green and Low-Carbon Project for Integration of Enterprises and Education with France, and the China-Africa TVET Cooperation Program, which have gone a long way in forging international synergy to tackle common challenges of mankind, and providing systematic and high-quality Chinese vocational education plans for industry-vocational education integration, job creation, and poverty reduction and alleviation.

---Promoting multi-lateral dialogues on vocational education among

international organizations. China has warmly responded to the initiatives and events of international organizations including the International Labor Organization, UNESCO, World Bank and OECD to help countries in need to improve their standard of vocational education. China has called on more multi-lateral dialogues and greater coordination and communication and actively participated in vocational education oriented towards emerging industries, developing inclusive and open vocational education, and formulating skills development strategies, thus contributing Chinese solutions to issues of international interest such as industrial development, skills development and stabilizing employment.

III Building a Grand System for Human Skills Development through Cooperation

The new round of technological revolution has raised brand new requirements and challenges for the quality structure and capability structure of human beings. China is prepared to work with countries around the world in joint consultation to build a system of human skills development.

---Building an upgraded version of Belt and Road vocational education cooperation. In the spirit of the "Action Plan for Belt and Road Cooperation in Education", China will continuously expand channels of international cooperation with Belt and Road partner countries and build ever broader platforms for international development and exchanges. The establishment of the Industry and Education Collaborative Innovation Center for Belt and Road Vocational Education has propelled exchanges and cooperation between enterprises and vocational schools of Belt and Road partner countries and accelerated the translation of scientific research findings. A mechanism for sharing vocational education data has been set up among Belt and Road partner countries, which has facilitated online teaching and long-distance training in vocational education. A regional framework for vocational school qualifications has been built through joint consultation which has created a standardized professional threshold. Efforts have been made to remove bottlenecks of exchanges, with mutual recognition of credits, degrees, and capability certificates so that technical professionals can have smooth international exchanges.

---Promoting international development of "Chinese language plus vocational skills". Fully respecting the development needs of other countries, efforts have been made towards the integration of Chinese language education in foreign countries and the "going global" of vocational education. Based on the categories of skills, targeted groups, and regional characteristics, featured courses of "Chinese language plus vocational skills" have been provided to serve external trade and production capacity cooperation and Chinese enterprises in zones of economic cooperation and trade overseas. Giving full play to the role of bases for the international scaling up of "Chinese language plus vocational skills", Chinese enterprises overseas have joined the efforts of developing country-specific vocational skill standards and certificates. Empowered by technology, smart classes have been made available online, bringing "Chinese language plus vocational skills" digital resources and courses onto the digital platforms for international Chinese language education and the national platform of smart education for vocational education.

---Burnishing the brand of "Luban Workshop". Adhering to the core principles of equal-footed cooperation, putting quality front and

center, valuing capabilities and skills, integrating industry with education and being grounded in specific local conditions, China will continuously improve the distribution of "Luban Workshops" worldwide through joint research and joint development for shared benefits and win-win outcomes. The "Luban Workshop Construction Alliance" will be continuously improved. EPIPs (Engineering Practice Innovation Projects) featuring Chinese characteristics and a global vision will continue to be scaled up, based on the EPIP research centers already established in Thailand, Portugal, and Ethiopia. Vocational schools with the right conditions are encouraged to set up "Luban Workshops" overseas, bringing advanced teaching models and quality teaching equipment to overseas partners. Building on the existing teaching standards for international majors, China will work with cooperation partners to deliver international teaching standards, a system of courses and teaching resources. Efforts will be made to include degree education of "Luban Workshops" into the national education system of partner countries. The quality certification system of "Luban Workshops" will be improved to set up standard models of "Luban Workshops" with Chinese characteristics and world standards, so as to contribute more to international production capacity cooperation and higher-quality youth employment in partner countries.

Conclusion

Education builds the foundation for the future. Technologies bring transformation to our lives. Vocational education enjoys bright prospects and can make great things happen in the process of human development.

Vocational education in China has made great achievements and opened a path of development with Chinese characteristics. However, compared with the needs for supporting high-quality development of the Chinese economy and people's ever-growing needs for a better life, vocational education in China still has to draw reference from the experience of vocational education development in countries around the world to relentlessly reform itself with innovation and increase its adaptability. On the new journey of building a modern socialist country in all respects, China will continue to feature vocational education prominently. Vocational education has been defined as a type of education, which will be mainly driven by digital transformation and will serve as an engine for guiding the future and driving social development.

As things stand, facing the severe challenges brought by the COVID-19 pandemic, global economic recovery is still lackluster. The "new normal" of the pandemic has forced changes in the industrial structure and people's ways of life. Vocational education has to play a bigger role in economic growth and people's livelihood while making changes to keep abreast with the trends. Opportunities shall be grasped for the development of vocational education to have a great reserve of strong technologies and abundant human resources through reforms in the approaches to education, operational modes, management mechanisms and guarantee mechanisms.

As a Chinese proverb reads, "The going may be tough when one walks alone, but it gets easier when people walk together." Human beings are living in a community with a shared future. Joint contribution, shared results, and win-win cooperation is the right prescription for solving development conundrums facing all countries. China stands ready to work with countries around the world to draw strength from one another without any reservation. Taking vocational education as a bridge to spread skills, disseminate cultures, and build friendships, China will make concerted efforts with all countries to create brighter prospects for mankind.

