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Communication & Cooperation

Development with Concerted Efforts

## ISU News

**Proceedings of International Silk Union** 

No. 3 2022



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China National Silk Information Center



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Declaration

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| Internation                | nal Silk Union Chairman Meeting (Dec. 21 2022, Host: ISU Secretary General)   |  |  |  |  |  |  |  |
|----------------------------|---|--|--|--|--|--|--|--|
| 15:00-15:05                | Introduction of leaders and guests  |  |  |  |  |  |  |  |
| 15:05-15:20                | Welcome address   |  |  |  |  |  |  |  |
| 15:20-15:40                | Report of ISU 2022 by ISU chairman Zhang Guoqiang   |  |  |  |  |  |  |  |
| 15:40-15:45                | Review the report of ISU 2022   |  |  |  |  |  |  |  |
| 15:45-15:55                | Briefing of ISU members to participate in activities  |  |  |  |  |  |  |  |
| 15:55-17:40                | International silk industry development dynamics  Stefano Vitali ISU Vice-chairman, President of Ufficio Italiano Seta  Xavier Lepingle ISU Vice-chairman, President of Intersoie France  Renata Amano ISU Vice-chairman, President of Brazilian Silk Association  Rajit Ranjan Okhandiar Secretary General of International Sericultural Commission  Reza Sourati Zanjani Head of Iran Silk Research Center  Julius L. Leaño Jr Officer-in-Charge, Office of the Director, DOST-PTRI  Sukanya Chumchuen The Queen Sirikit Department of Sericulture  |  |  |  |  |  |  |  |
| Internation                | nal Think Tank Forum on Silk High-Quality Development (Dec. 21 2022, Host: ISU Vice-chairman)   |  |  |  |  |  |  |  |
| 18:40-19:00<br>19:00-20:20 | Academician's Report:  Research on Silk Industry High-quality Development in the Context of "the Belt and Road Initiative"  Chen Wenxing Academician of China Engineering Academy, Vice-chairman of ISU, President of ZSTU  Thematic Reports: High-quality Industrial Rearing of Silkworm (Bombyx moril) with Formula Feed in all Instars  Cao Jinru Director of Hangzhou Comprehensive Experiment Station, China Agriculture Research System—Sericulture Research and Product Development of Medical Biomaterials based on Silk Proteins  Wang Xiaoqin Distinguished Professor of Soochow University, Chief Scientist of Silk Protein Biotechnology of Cathaya  The Trade Scale and Market Structure of Modern World Raw Silk Market  Gu Guoda Director of Institute of International Economics, Zhejiang University  Targeted immobilization of bioactive peptides on silk fibroin-based biomaterials  Tomoko Hashimoto Associate Professor of Faculty of Textile Science and Technology Shinshu University |  |  |  |  |  |  |  |
| 20:20-21:40                | Thematic Reports: Sustainability  Italian Silk LCA Research Graziano Elegir Head of Innovhub Silk Division  ISC and ISU Contacts with European Commission Directorate-General for Environment in 2022  Joao Berdu Project Manager of Vale da Seda  Indian Silk LCA Research 2022  Amit Kumar Central Sericultural Research & Training Institute, Central Silk Board  Life Cycle Assessment of Silk Products from Cradle to Gate: Methodology and Examples  Xu Jianmei Associate Professor of Soochow University   |  |  |  |  |  |  |  |
| 21:40-21:55                | Technical Guildline for the Quantification and Report of the Life Cycle Carbon Footprint of Silk Products (Draft for Comment)   |  |  |  |  |  |  |  |
| 21:55-22:00                | Meeting Summary   |  |  |  |  |  |  |  |

### 议程: 2022 丝绸高质量发展国际智库论坛暨 国际丝绸联盟主席会议

| 国际丝绸                       | <b>联盟主席会议</b> (2022 年 12 月 21 日   主持人: ISU 秘书长)  |
|----------------------------|--|
| 15:00-15:05                | 介绍领导嘉宾   |
| 15:05-15:20                | 领导致辞   |
|                            | ** ***********************************   |
| 15:20-15:40                | 国际丝绸联盟主席张国强作 2022 年联盟工作报告  |
| 15:40-15:45                | 审议 2022 年国际丝绸联盟工作报告  |
| 15:45-15:55                | 国际丝绸联盟成员单位参与活动情况通报   |
| 15:55-17:40                | 国际丝绸产业发展动态   |
|                            | Stefano Vitali 联盟副主席、意大利丝绸协会会长   |
|                            | Xavier Lepingle 联盟副主席、法国丝绸协会会长   |
|                            | Renata Amano 联盟副主席、巴西丝绸协会会长  |
|                            | Rajit Ranjan Okhandiar 国际蚕业委员会秘书长  |
|                            | Reza Sourati Zanjani 伊朗丝绸研究所所长   |
|                            | Julius L. Leaño Jr 菲律宾纺织研究所科学技术部主任   |
|                            | Sukanya Chumchuen 泰国诗丽吉王后蚕桑司研究员  |
| 丝绸高质                       | 量发展国际智库论坛(2022年12月21日 主持人: ISU 副主席)  |
|                            |  |
| 18:40-19:00                | 院士报告: "一带一路"背景下丝绸产业高质量发展研究   |
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|                            | 除文兴 中国工程院院士、国际丝绸联盟副主席、浙江理工大学校长<br>主题报告:高质量<br>全龄人工饲料工厂化养蚕<br>曹锦知 国家蚕桑产业技术体系杭州综合试验站站长,研究员<br>基于蚕丝蛋白的医用生物材料研究及产品开发   |
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Amit Kumar 印度中央蚕丝局中央蚕业研究培训院

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21:55-22:00 会议总结



# The 26th International Sericulture Commission Congress is Held in Romania 第 26 届国际蚕业委员会大会在罗马尼亚召开

he three-day 26th International Sericulture Commission Congress, themed "SERITECH—the New Concepts in Sericulture", kicked off in University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca, Romania on September 8 both physically and online.

As an international forum committed to sericulture and silk industry, the triennial congress has built a platform for people in the industry to interact, share and communicate. It had eight parallel sessions running regarding mulberry. mulberry silkworm, non-mulberry silkworm, bacteriology of silkworm, post-cocoon processing techniques, sericulture economy, marketing and management, non-textile applications of silk, and silk processing. More than 100 experts from China, India, Thailand, the Philippines, Cuba, Egypt and other countries and regions

were invited to deliver keynote speeches and share papers, and indepth exchanges were made on the development trend of the sericulture industry in various countries as regards policy support, development scale, silkworm variety breeding, industrial chain, as well as technology research and development.

ZHANG Guoqiang, chairman of ISU and chairman of the board of Cathaya Group, LI Qizheng, secretary general of ISU and president of Periodicals Agency of Zhejiang Sci—Tech University, and representatives from ISU members such as Cathaya Group, Hangzhou Textile Machinery Group Co., Ltd., and Guangxi Huahong Silk Co., Ltd. were invited to attend the congress.

During the congress, the Louis Pasteur Award of International Sericulture Commission (ISC) was granted to experts and scholars who had made outstanding contributions

to the development of the silk industry. When delivering a keynote report for the conference on behalf of ISU, ZHANG Guogiang extended warm congratulations on the opening of the conference and introduced the development of ISU and the research progress of life cycle evaluation of the whole industrial chain of global silk. ISU Secretariat assisted in inviting JIN Feng, general manager assistant and R&D manager of Shengzhou Mulsun Biotech Co., Ltd. to deliver a special report at the parallel sessions on "sericulture economy, and marketing and management". He introduced "factory-like rearing of silkworms using artificial diet for all instars" from the company profile. industry background, advantages of factory-like rearing of silkworms using artificial diet, key technologies, research and development process and achievements, new application of silk and other aspects..

(Source: ISU Secretariat )





9月8日,第26届国际蚕业委员会大会在罗马尼亚克卢与纳波卡农学与兽医大学线上线下同步召开,大会以蚕业科技—种桑养蚕新概念"为主题,会期三天。

国际蚕业委员会大会每三年召开一次,是一个专注于蚕桑丝绸行业的专业国际论坛,为业内人士搭建了互动、共享和交流的平台。大会共设置了桑树、桑蚕,非桑蚕,蚕细菌学,蚕茧后加工技术,蚕业经济、营销和管理、经绸的谐彩约应用,丝绸加工8个分会场,邀请来自中国、印度、泰国、菲律宾、古巴、埃及等国家和地区的百余位专家作专题

报告和论文分享,就政策支持、发展规模、 蚕桑品种培育、产业链条、技术研发等 方面深入交流了各国蚕桑产业的发展态 势。

国际丝绸联盟主席、浙江凯喜雅集 团董事长张国强,国际丝绸联盟秘书长、 浙江理工大学杂志社社长李启正受邀参 会,联盟成员浙江凯喜雅集团、杭州纺 织机械有限公司、广西华虹蚕丝股份有 限公司、巴西 Bisa Overseas 等相关代表 共同参会。

会议颁发了国际蚕业委员会路易·巴斯德 (Louis Pasteur Award) 奖, 旨在表彰对丝绸产业发展做出杰出贡献 的专家学者。张国强主席为大会作主旨报告,代表国际丝绸联盟对大会的召开表示热烈祝贺,并介绍了国际丝绸联盟对大会的召开表示热烈祝贺,并介绍了国际丝绸联盟较为原际蚕桑丝绸全产业驻免。国际丝绸联盟秘书处协助邀请了嵊州陌桑高科股份有限公司总经理助理、研发经理金丰在"蚕业经济、营销和管理"分会场做专题报告。金丰从公司概况、行业背景、人工饲料养蚕的优势、关键技术、研发过程及成果、丝绸的新应用等方面介绍了蚕桑茧丝绸现代化发展之路。

(来源: 国际丝绸联盟秘书处)



## Progress of the Strategic Research and Consulting Project of "Silk Industry High-quality Development" of Chinese Academy of Engineering 中国工程院"丝绸高质量发展"战略研 究与咨询项目调研进展

ilk is an oriental fashion that stuns the world, a top luxury that lasts for thousands of years, a green industry that revitalizes the countryside, and a bridge that connects the world. The 2022 strategic research and consulting project of Chinese Academy of Engineering's "Research Project on Silk Industry High-quality Development in the Context of 'the Belt and Road Initiative" designed to explore the development path and seek new initiatives of China's silk industry through a panoramic and microscopic analysis of the industry, and to further solidify and improve the international status and image of China's silk industry. By forming a series of targeted and innovative theories, methods and value laws for the high-quality development of China's silk industry, the project can provide demonstrations, experiences and models for the study of characteristic industrial economy.

From July to September, the project team went to Zhejiang, Shandong, Jiangsu, Sichuan, Guangxi

and other places in China for an indepth understanding of the production structure, development scale and technical bottlenecks of the local silk industry, and made key research and analysis around the intelligent, digital and green manufacturing of the silk industry, factory-like rearing, application of biomedical materials for silkworm and mulberry silk, technical standard system of the silk industry. silk cultural influence, industrial competitiveness and international cooperation strategy, and doublecarbon standard system of the silk industry.

#### Zhejiang

From July 5 to 8, Academician CHEN Wenxing, the project leader, scientist of the Ministry of Agriculture and Rural Affairs of the People's Republic of China, president of Zhejiang Sci–Tech University, and vice chairman of ISU, together with the project team, paid a visit to Zhejiang Xingyue Biotechnology Co., Ltd., Zhejiang Rifa Textile Machinery Tech Co., Ltd. and High Fashion Silk

(Zhejiang) Co., Ltd. Specifically, they visited the GMP purification workshop and silk biomedical protein exhibition hall of Xingyue Biotechnology, the digital production workshop and 4A class park of High Fashion Silk, and the equipment assembly workshop, spare parts production workshop and company exhibition hall of Rifa Textile Machinery Tech and carried out research on silk fibroin bio-medicine, and intelligent and digital production of silk.

#### Shandong

LI Qizheng, the general coordinator of the project, secretary—general of ISU and president of Periodicals Agency of Zhejiang Sci—Tech University led the project team to pay a visit to Zibo Daranfang Silk Group Co., Ltd., the only cocoon and silk production enterprise in Shandong Province that boasts a national enterprise technology center, a national industrial design center, a national key cultural export enterprise, a research and development platform of the national







一位,是延续千年的顶级奢业,是联结世界的纽带桥梁。2022中国业,是联结世界的纽带桥梁。2022中国工程院战略研究与咨询项目"一带一路'背景下丝绸产业的全景分析和微观剖析,探寻中国丝绸产业的全景分析和微观剖析,探寻中国丝绸产业的发展路径与举措,进一步巩固和提高中国丝绸产业的国际地位与形象。形成一系列具有针对性和创新性的中国丝绸产业高质量发展理论、方法与价值规律,为特色产业经济的研究提供示范、经验和模式。

7月至9月,项目组深入中国浙江、 山东、江苏、四川和广西等地,了解了 当地丝绸产业的生产结构、发展规模和 技术瓶颈,并围绕丝绸产业智能化、数 字化、绿色化制造,工厂化养蚕,蚕桑 丝绸生物医用材料应用,丝绸行业技术标准体系,丝绸文化影响力、产业竞争力及国际合作策略,丝绸产业双碳标准体系等方面进行了重点调研与分析。

#### 浙江

7月5日至8日,项目负责人、国家农业农村部科学家、浙江理工大学校长、国际丝绸联盟副主席除文兴院士带领项目组走访调研了浙江星月生物科技股份有限公司、浙江口发纺机技术有限公司和达利丝绸(浙江)有限公司、蚕丝生物医用蛋白展厅,达利丝绸数字化生产车间、44级园区,日发纺机设备装配车间、备件生产车间和公司展厅等,就生素蛋白生物医用,丝绸智能化、数字化生产进行了专题调研。

#### 山东

7月12日,项目总协调、国际丝绸 联盟秘书长、浙江理工大学杂志社社长 李启正带领项目组调研了淄博大染坊集 团有限公司。大染坊是山东省茧丝绸生 产企业中唯一拥有国家级金业技术中心、 国家级至业设计中心、国家级重点公司。 世口企业、全国纺织行业工业设计中心研发平台、国家级绿色设计产品示范企业的企业。项目组与大染坊举行了座谈交流,并参观了大染坊剑杆织造、大提花、练整、染整、制品等事业部和公司展厅,深入了解了中国丝绸国有企业改制重组的发展历程、以及新形势下大染坊顺应时代、成为全国制造业单项冠军示范企业的转型发展。

#### 四川

7月28日,项目组在四川南充组织





textile industry industrial design center, and a national green design product demonstration enterprise. The group team held a symposium with Daranfang and visited the latter's departments regarding rapier weaving, jacquard, boiling and finishing, dyeing and finishing, products and other business, and exhibition hall, so as to have an in-depth understanding of the former state-owned enterprise's development history after reform and restructuring and of how Daranfang has conformed to the times and become a national manufacturing champion demonstration enterprise under new circumstances.

#### Sichuan

On July 28, the project team organized the Nanchong symposium on "Research Project on Silk Industry High-quality Development in the Context of 'the Belt and Road Initiative'" in Nanchong, Sichuan. The project team also invited experts from China Silk Association, leaders of relevant government sectors in Sichuan, heads of industry associations and representatives of enterprises and colleges to attend the symposium, getting a whole picture of the policy support, industrial scale and

cultural building of sericulture industry in Southwest China. During the period, the project team participated in the 2022 Sichuan International Cultural Tourism Festival, the 2022 Boao International Summit on the Origin of World Silk, the unveiling ceremony of "Living Fossil of China's Silk Industry" and other activities, and visited the World Silk Origin Museum, Nanchong Fashion Foundation Manufacturing Ltd., Sichuan Bombyx Organic Agriculture Technology Co., Ltd., and Sichuan Bombyx Textile Development Co.,Ltd.

#### Jiangsu

On August 9, the project team organized and held "Nanjing symposium on Research Project on Silk Industry High-quality Development in the Context of 'the Belt and Road Initiative'" in Jiangsu Soho International Plaza. The project team invited leaders of relevant industrial associations in Jiangsu and Zhejiang Provinces and representatives from enterprises and colleges to attend the symposium, getting a whole picture of the development status as well as key development directions of silk culture and industry in Jiangsu Province.

After the symposium, the project team visited Nanjing Jiangnan Silk Cultural Museum, Jiangsu Soho Royal Co., Ltd., Jiangsu Art and Craft Museum. etc.

#### Guangxi

From August 15 to 19, the project team, together with representatives of Zheijang Silk Association, investigated the cocoon and silk industry in Guangxi. The project team visited 12 key silk enterprises including Guangxi Nongtou Guihe Silk Co., Ltd., Guangxi Gova Silk Co., Ltd., Guangxi Wuzhou Tianze Technology Co., Ltd., Guangxi Huahong Silk Co., Ltd., Guangxi Mengshan Jin Fuchun New Materials Co., Ltd., Silk Road Group Guangxi Silk Co., Ltd., Guanaxi Yinachun Silk Co., Ltd., Guangxi Hengye Silk Group Co., Ltd., Guangxi Jialian Silk Co., Ltd., Beijing Wehand-Bio Pharmaceutical Co., Ltd. and Guanaxi Jiang Yuan Cocoon Silk Group Co., Ltd., and held five symposia to have an in-depth understanding of the status quo, development characteristics and supporting policies of Guangxi cocoon and silk industry.

(Source: ISU Secretariat)





召开了"一带一路'背景下丝绸产业高质量发展研究南充座谈会",邀请中国丝绸协会专家、四川省市相关政府部门领导、行业协会负责人和企业院校代表出席,对西南地区蚕桑产业的政策扶持、产业规模、文化打造等进行了全面了解。期间,项目组参加了2022四川国际文化旅游节、2022世界丝绸源点·博鳌国际峰会、"中国丝绸工业活化石"揭幕仪式等活动,并走访调研了世界丝绸源点博物馆和南充家丰时装、布碧丝再生有机农业、布碧丝药级发展等公司。

#### 江苏

8月9日,项目组在江苏苏豪国际广场组织召开了"'一带一路'背景下丝绸产业高质量发展研究南京座谈会",邀请江苏省、浙江省相关行业协会负责人和企业院校代表出席,全面了解了江苏省丝绸文化和产业的发展情况,及重点发力方向。期间,项目组走访调研了江南丝绸文化博物馆、江苏苏豪尚品有限公司和江苏省工艺美术馆等。

#### 广西

8月15日至19日,项目组同浙江省丝绸协会考察调研了广西茧丝绸产业。项目组先后参观了广西农技桂合、桂华丝绸、梧州天泽科技、华虹蚕丝、金富春新材料、丝绸之路广西公司、迎春丝绸、恒业丝绸、嘉联丝绸、干企业、召开了5场座谈会、深入了解了广西茧丝绸产业现状、发展特点和扶持政策。

(来源: 国际丝绸联盟秘书处)



## 2022 Silk Road Week Opens at China National Silk Museum in Hangzhou 2022 丝绸之路周主场活动在中国丝绸博物馆举行

rom July 8 to 14, the programme of events of the "2022 Silk Road Week" took place at China National Silk Museum under the theme of "National Integration & Common Prosperity". This edition of Silk Road Week, pioneering the concepts of the guest country of honor and the quest province of honor, invited the Republic of Uzbekistan as the quest country, and Qinghai Province the guest province for showcasing characteristics of the Silk Road of the Republic of Uzbekistan in an all-round way and for in-depth exploration of Qinghai's unique Silk Road cultural resources.

The Annual Report of Cultural Heritage on the Silk Roads 2021 and Thematic Collection of Cultural Exchanges along the Silk Roads: Textiles and Clothing were launched at the event. A series of exhibitions,

academic seminars and supporting social and educational activities were held in the main venue of Hangzhou, including "Gorgeous Costumes: Restoration and Conservation of Textiles", "Synchronicity: Restoration of Silk Road Costumes in the 6th-8th Centuries", "Beautiful Uzbekista n: Selected Works Exhibition of the Youth Eyes on the Silk Roads Phot o Contest", "Observe and Identify: Thematic Exhibition of Cultural Relics Protection and Archaeological Science Microscope Photograph", Symposium on Archaeology and Historical Research along the Qinghai Silk Road and the Silk Road Archaeological Specialized Committee, Chinese Archaeological Society, etc. China National Silk Museum launched the exhibition "Silk and the Silk Roads: from Hangzhou to Samarkand" at the Samarkand State Museum-Reserve of Uzbekistan and launched a

cloud exhibition of the same name in collaboration with the latter.

It is reported that "Silk Road Week" is a major activity jointly initiated by National Cultural Heritage Administration and the People's Government of Zhejiang Province to carry forward the spirit of the Silk Road and respond to the "the Belt and Road" Initiative. At present, three editions Silk Road Week have been held. Two previous editions of Silk Road Week. focusing on the themes of "The Silk Roads: Mutual Learning for Future Collaboration" and "Cultural Diversity and Sustainable Development" took place in Hangzhou in 2020 and 2021 respectively, attracting more than 300 cultural institutions from all over the world and wide attention from all walks of life.

(Source: China National Silk Museum)



7月8日至14日,"2022丝绸 之路周"主场活动在中国丝绸博物馆举行,主题为"民族融合,共同繁荣",本届丝绸之路周首次开启了主宾国、主宾省概念、分别邀请乌兹别克斯坦共和国、青海省作为主宾国和主宾省,以充分展示乌兹别克斯坦共和国丝路特色风情、深入挖掘青海特有的经路文化资源。

活动发布了《2021年度丝绸之路文 化遗产年报》《丝绸之路上的文化互动 专题集: 纺织与服装》等。杭州主会场 举办了系列展览、学术研讨会以及配套 社教活动,包括"华彩重现: 纺织品文物 保护修复成果展""锚东近行: 6-8 世纪丝 路服饰复原展""大美乌兹: UNESCO 丝 绸之路青年之眼摄影大赛精选作品展"鬼 微镜下的国宝: 文物保护与考古科学专 题显微图片展""丝绸之路青海道的考古 与历史研究学术研讨会暨中国考古学会 丝绸之路考古专业委员会会议"等。乌兹 别克斯坦撒马尔罕国立博物馆与中丝绝 城杭州到撒马尔罕",在撒马尔罕国立婚 从杭州到撒马尔罕",在撒马尔罕国立路, 物馆线下展出,并联合发布了同名云展。

(来源:中国丝绸博物馆)



## The 2022 Boao International Summit on the Origin of World Silk Kicks off in Gaoping District, Nanchong 2022 世界丝绸源点·博鳌国际峰会在南充市高 坪区举行

he 2022 Boao International Summit on the Origin of World Silk themed "Origin, Way & Spirit" kicked off in Gaoping District, Nanchong, Sichuan Province on July 28, 2022, when more than 100 people, including professional scholars from scientific research institutions and enterprise representatives from all over the country attended the summit to find the origin of Silk Road, make an interaction about the memories of the silk capital in the past millennia, and share the feast of culture and thought.

Six renowned experts and scholars including LI Qizheng, secretary—general of ISU and president of Periodicals Agency of Zhejiang Sci—Tech University, DAI Fangyin, director of State Key Laboratory of Silkworm Genome Biology, and chief scientist of the National Sericulture Industry Technology System, LI

Hougiang, deputy director of Decision-making Advisory Committee of the Provincial Party Committee and the People's Government of Sichuan Province, professor of Sichuan Academy of Social Sciences, BIN Zi, president of Beijing Zhongguancun Mass Entrepreneurship and Innovation University and founder of Yicibatang Group, LEI Congyun, former director of Art Exhibitions China, CHEN Xiangping, invited vice president of China Silk Association. vice president of International Silk Union, and president of Sichuan Silk Association were invited to deliver keynote speeches and 18 experts and scholars in the industry were invited to make written exchanges and discussions. The participating experts enthusiastically published research results, boldly exchanged academic views, and achieved fruitful results, which further enhanced the

international influence of Gaoping District of Nanchong City as the World Silk Origin".

As the world-renowned silk origin, Nanchong Gaoping is a vital node connecting the Silk Road Economic Belt and the Yangtze River Economic Belt. Boasting the time-honored brand Liuhe, which is dubbed the "national industrial heritage" and "living fossil of China's silk industry", Nanchong Gaoping is an important part and has distinct advantages in the development history of silk in China and even the world, making significant contributions to the development of the Southern Silk Road and cultural exchanges between the East and the West. The 2022 Boao International Summit on the Origin of World Silk held in Nanchong is of far-reaching significance.

> (Source: Gaoping District Convergence Media Center)



7月28日,2022世界丝绸源点·博鳌国际峰会在四川省南充市高坪区举行,峰会主题对丝源·丝路·丝魂",来自全国各地的科研院校专业学者和企业代表等100余人参会,共寻万里丝路源点,共话千年绸都记忆,共享文化思想盛宴。

会议邀请了国际丝绸联盟秘书长、浙江理工大学杂志社社长李启正、家蚕基因组生物学国家重点实验室主任、国家蚕桑产业技术体系首席科学家代方银、四川省委省政府决策咨询委员会副主任、四川省社会科学院教授李后强、北京中关村双创大学校长、一祠八堂集团创始人宾子,原国家文纳交流中心主任雷从云、中国丝绸协会特邀副会长、国际丝绸 联盟副主席、四川丝绝绸协会会长陈祥平6位知名专家学者

作主题发言,18位业内专家学者作书面交流研讨。与会专 家館跃发表研究成果,大胆交锋学术观点,取得了丰硕的 会议成果,进一步提升了南充市高坪区作为"世界丝绸源点" 的国际影响力。

南充高坪作为久负盛名的丝绸源点,是丝绸之路经济带与长江经济带交会的重要节点,拥有百年六合"国家工业遗产""中国丝绸工业活化石"等金字招牌,在中国乃至世界丝绸发展史上占有重要地位、具有明显优势,曾为南方丝绸之路发展和东西方文化交流做出了重要贡献。此次"世界丝绸源点·博鳌国际峰会"在南充召开,具有深远意义。

(来源:高坪区融媒体中心)



## ZHAO Feng is Elected ICOM Executive Board Member at the 37th General Assembly with the Highest Vote 赵丰最高票当选国际博协第 37 届执行 委员会委员

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n August 24 (Czech time), the 37th General Assembly of International Council of Museums (ICOM) was held in Prague, Czech Republic both physically and online. Representatives of the committees and other branches voted on a number of documents and issues, including the 2021 Work Report, ICOM Strategic Plan for 2022-28, and resolutions on the convention for the collections in the event armed conflict, crossing pluralistic language barriers and balancing access to ICOM resources. In addition, the representatives of the National Committee of the United Arab Emirates also made a report on the preparations for the upcoming 27th ICOM General Conference 2025 in Duba.

As the most important agenda of the assembly, the election results of the new ICOM Executive Board

(2022-2025) were released at the end of the assembly. ZHAO Feng was elected Executive Board member with the highest vote. The ICOM Executive Board, the highest governing body of the organization, currently consists of a president, two vice-presidents, a treasurer and 11 members. As an important senior member of ICOM China, ZHAO Feng has long been committed to museum construction and management, as well as museum exchanges at home and abroad. With this election, he will be deeply involved in international affairs as the Chinese representative of ICOM management, and further facilitate the communication and cooperation between China and global museums.

### The ICOM Executive Board Members

President: Emma Nardi (Italy)
Vice-Presidents: Inkyung CHANG
(Republic of Korea), Terry Simioti NYAMBE

(Republic of Zambia)

Treasurer: Carina JAATINEN (Republic of Finland)

Ordinary Members: ZHAO Feng
(People's Republic of China), Marilia
BONAS (Federative Republic of Brazil),
Kaja SIROK (Republic of Slovenia),
Tayeebeh Golnaz GOLSABAHI (Islamic
Republic of Iran), Steph SCHOLTEN
(United Kingdom of Great Britain and
Northern Ireland), Deborah TOUT—
SMITH (Commonwealth of Australia),
Luis RAPOSO (Portuguese Republic),
Jody STEIGER (Republic of Costa Rica),
Karin WEIL GONZÁLEZ (Republic of
Chile), Ahmed MOHAMMED (United Arab
Emirates), Rachelle DOUCET (Republic of

Chairperson of the Advisory Council: Antonio Rodriguez (United States and Venezuela).

Vice-Chair of the Advisory Council: Medea Ekner (Sweden)

(Source: China National Silk Museum)

克时间 8 月 24 日,国际博物馆协会在捷克共和国首都布拉格现场和线上同时召开了第 37 届全体大会。各委员会和其他分支机构代表们经投票通过了多项文件和议题,包括 2021年工作报告,2022-2028年的国际博协战略规划,以及关于武装冲突期间的藏品保护,跨越多元化语言障碍,平衡国际博协资源可及性的决议。此外,阿拉伯联合酋长国国家委员会代表还就即将于 2025 年在迪拜召开的国际博协第 27 届大会筹备工作做了汇报。

作为本届大会最重要的议程,会议最后公布了新一届国际博协执行委员会(2022-2025)选举结果,赵丰最高票当选执委会委员。国际博协执委会是该组织的最高领导机构,现由1名主席、2名副主席、1名司库和11名委员组成。赵丰作为国际博协和中国国家委员会的重要资深成员,长期以来致力于博物馆建设与管理,以及国内外博物馆交流工作。此次当选后,他将作为国际博协管理层的中国代表深度参与国际事务,进一步促进中国与全球博物馆领域间的沟通合作。

(来源:中国丝绸博物馆)

#### 国际博协新一届团队

主 席: Emma Nardi (意大利)

副主席:Inkyung CHANG(韩国)、Terry Simioti NAMBE(赞比亚)

司 库: Carina JAATINEN (芬兰)

委 员: 赵丰 (中国)、Marilia BONAS (巴西)、Kaja SIROK (斯洛文尼亚)、Tayeebeh Golnaz GOLSABAHI (伊朗)、Steph SCHOLTEN (英国)、Deborah TOUT- SMITH (澳大利亚)、Luis Raposo (葡萄牙)、Jody STEIGER (哥斯达黎加)、Karin WEIL GONZALEZ (智利)、Ahmed MOHAMMED (阿拉伯)、Rachelle DOUCET (海地)

咨询委员会主席: Antonio Rodriguez (美国和委内瑞拉) 咨询委员会副主席: 美狄亚·埃克纳 (瑞典)



## A Chinese Research Team Draws the First Super Pan-genome Map of the Silkworm 中国研究团队完成家蚕超级泛基因组图谱绘制

ne research team, under the leadership of Professor DAI Fangvin. director of State Key Laboratory of Silkworm Genome Biology, and chief scientist of the National Sericulture Industry Technology System, has completed the genome analysis of silkworm germplasm resources on a large scale and drawn the world's first super pan-genome map of the silkworm. This is the first research ever to digitize silkworm gene pool and create a "digital silkworm", which is of great significance for facilitating functional genomic research, advancing the modeling of silkworms, promoting precise breeding, facilitating genetic design and breeding of silkworms, and thus enabling "transformation and diversified utilization of silkworms". The research paper entitled Highresolution silkworm pan-genome provides genetic insights into artificial selection and ecological adaptation was published in the world-renowned iournal Nature Communications on 24 September.

The silkworm (Bombyx mori) is an important economic insect and an emerging model organism. Previously, only a single reference genome and partial re–sequencing data were available for silkworm gene research, which limits the in–depth mining of genomic variation and valuable genes, especially for molecular breeding. Pan–genome is the sum of all genomic information in a species,



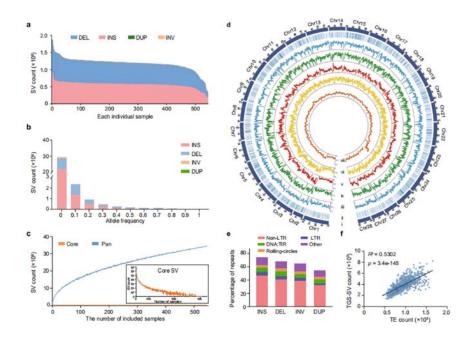
which is of great significance for deepening functional genome research and germplasm innovation.

The team conducted short-read second-generation sequencing of 1,078 silkworms (including 205 local strains, 194 improved varieties, 632 genetic stocks, and 47 wild silkworms), and long-read third-generation sequencing of 545 representatives, generating 55.57 T of genomic data. Besides, the team drew a high-resolution pan-genome map after assembling 545 high-quality genomes of silkworms, annotating 100

genomes, and identifying 7,308 new genes.

This pan-genome dataset contains the most comprehensive information on the genomes of domestic and wild silkworm, and is the largest long-read pan-genome in the world for plants and animals to date. At the same time, in-depth studies on various genetic variation, population structure, artificial selection and ecological adaptations and economic traits of silkworm have been carried out, yielding fruitful results.

(Source: State Key Laboratory of Silkworm Genome Biology)



国家蚕基因组生物学国家重点实验室主任、国家蚕桑产业技术体系首席科学家代方银教授研究团队完成家蚕产规模种质资源基因组解析("千蚕基因组"),绘就家蚕超级泛基因组。该研究在世界上率先实现家蚕基因库数字化,创建"数字家蚕",对于深化功能基因组研究和推进家蚕模式化,开启家蚕设计育种,赋能"改造家蚕、多元利用"等,具有深远的影响。研究论文"High-resolution silkworm pangenome provides gnetic insights into artificial selection and ecological adaptation"于9月24日在国际名刊《Nature Communications》在线发表。

家蚕是重要的经济昆虫和新兴模式生物,但之前仅 有单一参考基因组及部分重测序,尚不足以支撑基因组 变异和优良基因的深度挖掘,尤其对于分子育种具有显 著局限。超级泛基因组是一个物种所有基因组信息的总 和,对于深化功能基因组研究、种质创新等意义重大。

研究团队对 1078 份蚕种质资源 (205 份地方种, 194 份改良种, 632 份遗传材料, 47 份野桑蚕) 进行了深度二代(短读长) 测序, 对其中 545 份代表性资源进行了三代(长读长) 测序, 产生 55.57T 基因组数据, 组装了 545 个蚕的高质量基因组, 对 100 个基因组进行了基因注释, 鉴定到 4300 余万个 SNP、 930 余万个 Indel、340 余万个结构变异 (SV) 和 7308 个新基因(家族), 绘制了一个高精度家蚕泛基因组图谱。

该超级泛基因组囊括了目前最全面的家蚕和野桑蚕基因组信息,是迄今全球动植物领域最大的长读长泛基因组。同时,对蚕的各种遗传变异、群体结构、人工选择和生态适应性及经济性状开展了深入的研究,取得丰硕的创新结果。

(来源:家蚕基因组生物学国家重点实验室)



## Analysis on Operation of Chinese Silk Industry in 2021 中国丝绸行业 2021 年运行分析

ince 2021, faced with the combined influence of the unprecedented changes in the world in a century and the COVID-19 pandemic, China's silk industry has overcome many difficulties, continuously advanced the supply-side structural reform, and worked hard to mitigate various risks. As a result, industrial production has been basically stable, economic benefits have been continuously improved, domestic and foreign trade has resumed growth, and market vitality has gradually increased, which marks a good start in the 14th Five-Year Plan and plays an important role in stabilizing the economy, improving people's livelihood, ensuring employment and preventing risks.

#### 1.1 Industrial production status

According to the National Bureau of Statistics, the output of major products of enterprises above designated size was roughly stable in 2021. Among the major products, the output of silk products was 47,600 tons, deceasing by 7.83% year on year. Among the silk products, the output of satin was 386.32 million m, down by 2.33% year on year, while the output of spun silk and silk quilts was 3,103 t and 13.4 million pieces, respectively, with a year-on-year rise of 1.60% and 2.33%.

Judging from the output of major silk products of various provinces and cities in 2021 (Tab.1), although the output of silk in Guangxi decreased by 14.73% year on year, it still accounted

for 1/3 of the total output in China, ranking first among the major silk producing provinces. Silk production in Sichuan, Jiangsu and Zhejiang provinces increased slightly while the output of silk in Henan and Shaanxi increased by 26.21% and 31.82%. respectively. Among the top five provinces regarding the production of pure silk and satin, Sichuan, with the largest proportion, saw a yearon-year decline of 12.43%, while the other four provinces and cities achieved positive growth, with Jiangxi seeing the largest growth with a yearon-year rise of 49.24%. The five provinces of Jiangsu, Zhejiang, Henan, Jiangxi and Hunan with an annual output of more than one million pieces of silk quilts all achieved different degrees of growth on a yearly basis. Compared with Jiangsu and Zhejiang, Henan, Jiangxi, and Hunan had larger growth rates, with a year-on-year increase of 271.07%, 46.50%, and 63.58%, respectively.

#### 1.2 Economic benefits

1.2.1 Industrial economic rebound continues

In 2021, the silk enterprises above designated size in China reported an operating income of RMB68.259 billion and a total profit of RMB3.299 billion, with a year—on—year growth of 10.45% and 74.30%, respectively, the National Bureau of Statistics said. As for silk reeling, silk weaving, and silk dyeing, the operating income reached RMB26.442 billion, RMB33.63 billion and RMB8.188

billion, up by 9.14%, 7.69% and 29.00%, respectively year on year; the profits amounted to RMB1.283 billion, 1.444 billion and RMB572 million, up by 7.69%, 29.64%, and 42.91% respectively year on year. Related information is as shown in Fig.1 and Fig.2.

Seen from the change of operating income of the silk industry from January to December 2021, the growth remained basically stable, with a year-on-year growth rate of 22.98 percentage points, as shown in Fig.3. In terms of industry profits, affected by the rebound of the export market, the effective recovery of the domestic market and the continuous rise of silk prices, the industry profit in the first half of 2021 showed a rapid growth trend. Despite the fall in the second half of 2021, the profit growth rate at the end of the year still achieved an increase of 50.28 percentage points compared to the beginning of the year, and the annual growth rate increased by 111.94 percentage points against the previous year, as shown in

1.2.2 Continuous improvement in the quality and efficiency of industry operation

In 2021, there were 138 loss—making enterprises above designated size in the silk industry, 97 fewer than that in 2020, and the total loss of loss—making enterprises read RMB332 million, down by 62.81% year on year. The scale of losses was 23.51%, down by 13.15 percentage

| 丝类(含绢丝) |     |        |          | 蚕丝被 |         |       |        | 真丝绸缎 |         |        |        |  |
|---------|-----|--------|----------|-----|---------|-------|--------|------|---------|--------|--------|--|
| 序号      | 地区  | 产量/t   | 同比/%     | 序号  | 地区      | 产量/万条 | 同比/%   | 序号   | 地区      | 产量/万 m | 同比/9   |  |
| 1       | 广西  | 16 025 | - 14. 73 | 1   | 江苏      | 268   | 2.52   | 1    | [1] [2] | 15 680 | -12.43 |  |
| 2       | [1] | 9 620  | 2.33     | 2   | 浙江      | 250   | 4.37   | 2    | 浙江      | 11 365 | 4.63   |  |
| 3       | 江苏  | 5 280  | 1.69     | 3   | 河南      | 223   | 271.07 | 3    | 江西      | 3 214  | 49.24  |  |
| 4       | 浙江  | 3 854  | 1.97     | 4   | 江西      | 218   | 46.50  | 4    | 重庆      | 2 308  | 0.55   |  |
| 5       | 云南  | 2 791  | -6.68    | 5   | 湖南      | 121   | 63.58  | 5    | 江苏      | 1 947  | 5.07   |  |
| 6       | 安徽  | 1 904  | -31.58   | 6   | 广东      | 80    | 38.50  | 6    | 广西      | 1 790  | -0.42  |  |
| 7       | 江西  | 1 523  | -29.30   | 7   | 山东      | 66    | 17.41  | 7    | 安徽      | 1 148  | -24.90 |  |
| 8       | 河南  | 1 498  | 26.21    | 8   | 陕西      | 48    | -51.58 | 8    | 山东      | 602    | -1.24  |  |
| 9       | 陕西  | 1 372  | 31.82    | 9   | 广西      | 24    | 27.27  | 9    | 云南      | 327    | -2.15  |  |
| 10      | 贵州  | 1 138  | 17.25    | 10  | 湖北      | 19    | -46.04 | 10   | 陕西      | 251    | 32.33  |  |
| 11      | 重庆  | 810    | -54.22   | 11  | [2] [1] | 6     | -65.74 |      |         |        |        |  |
| 12      | 山东  | 444    | -8.89    | 12  | 安徽      | 5     | -74.89 |      |         |        |        |  |
| 13      | 辽宁  | 427    | 12.15    | 13  | 福建      | 3     | 152.27 |      |         |        |        |  |
| 14      | 湖北  | 426    | 54.69    | 14  | 云南      | - 3   | -37.55 |      |         |        |        |  |
| 15      | 广东  | 352    | 17.24    | 15  | 上海      | 3     | 13.06  |      |         |        |        |  |
| 16      | 山西  | 87     | 2.40     | 16  | 重庆      | 2     | -2.73  |      |         |        |        |  |

表 1 2021 年各省市丝绸主要产品产量情况

Tab.1 The output of main silk products in various provinces and cities in 2021

注:资料来自国家统计局

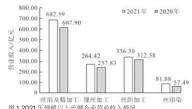


图 1 2021 年规模以上丝绸企业营业收入情况 Fig.1 Operating income of enterprises above the designated size in 2021

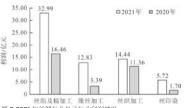


图 2 2021 年丝绸行业各子行业利润情况 Fig.2 Profits of various sub-industries regarding silk in 2021

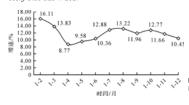


图 3 2021 年 1-12 月丝绸行业营业收入增速情况 Fig.3 The growth status of operating income in the silk industry from January to December of 2021

2021年以来,面对世界百年未有之大变局和世纪新冠肺炎疫情的交织影响,中国丝绸行业克服重重困难,持续推进供给侧结构性改革,努力化解了各种风险,工业生产基本稳定,经济效益持续改善,从分贸易恢复性增长,市场活力不断显现、实现了"十四五"良好开局,为稳经济、保民生、促就业、防风险发挥了重要的作用。

#### 1.1 工业生产情况

据国家统计局统计,2021 年规模以上企业主要产品产量基本稳定。主要产品中,丝类产量  $4.76\,\mathrm{D}\,\mathrm{t}$ ,同比下降 7.83%,其中绢丝  $3103\,\mathrm{t}$ ,同比增长 1.60%; 绸缎产量  $38632\,\mathrm{D}\,\mathrm{m}$ ,同比下降 2.33%; 蚕丝

被产量 1340 万条,同比增长 21.31%。

从 2021 年各省市丝绸主要产品产量情况看(表1),广西的丝类产量虽然同比下降14.73%,但仍占据全国总产量的1/3,牢居丝类主产省首位;四川、江苏、浙江等三省丝类产量略有增长;河南、陜西的丝类产量则大幅提高。同比分别增长26.21%、31.82%。真丝绸缎产量前五位的省份中,占比最大的四川同比下降12.43%,其余四个省市实现正增长,其中江西增长幅度最大,同比增长达到49.24%。蚕丝被年产量在100万条以上的江苏、浙江、河南、江西、湖南等五省。同比都实现不同程度增长,河南、江西、湖南增长幅度较大,分别增长271.07%、46.50%和63.58%。

#### 1.2 经济效益情况

#### 1.2.1 工业经济恢复性增长

据国家统计局统计,2021年全国规模以上丝绸企业实现营业收入 682.59 亿元,同比增长 10.45%;利润总额 32.99 亿元,同比增长 74.30%。其中,缫丝加工营业收入 264.42 亿元,同比增长 9.14%;实现利润 12.83 亿元,同比增长 238.79%。丝织加工营业收入 336.30 亿元,同比增长 7.69%;实现利润 14.44 亿元,同比增长 29.64%。丝印染加工营业收入 81.88 亿元,同比增长 29.00%;实现利润 5.72 亿元,同比增长 42.91%,见图 1,图 2

从 2021 年 1-12 月丝绸行业营业收入变化情况看,增速走势基本平稳,全年增速较 2020 年同期提高 22.98 个百分



| 序号 | 主要经济指标   | 2021 年<br>同比/% | 2020 年<br>同比/% | 同比变化/%    |
|----|----------|----------------|----------------|-----------|
| 1  | 利润总额     | 74.30          | -37.65         | 111.95    |
| 2  | 营业收入     | 10.45          | -12.53         | 22.98     |
| 3  | 营业成本     | 8.72           | -12.23         | 20.95     |
| 4  | 三费支出     | -1.18          | -5.69          | 4.51      |
| 5  | 亏损面      | 23.51          | 36.66          | -13.15    |
| 6  | 负债合计     | 8.59           | -0.19          | 8.78      |
| 7  | 亏损企业亏损总额 | -62.81         | 97.36          | - 160. 17 |

表 2 2021 年丝绸行业主要经济指标变化情况

Tab.2 The changes in the main economic indicators of the silk industry in 2021 社、资料业自国家统并已

注:资料来自国家统计局

points compared with the same period in 2020. The scale of losses was obviously narrowed, but it was still 6.38 percentage points higher than the average level of the textile industry. Enterprise inventory and management cost read RMB14.359 billion and RMB2.247 billion, with a respective year-on-year growth of 12.18% and 5.37%, while enterprise sales expenses and financial expenses were figured at RMB993 million and RMB810 million, with a respective year-on-year decline of 5.29% and 11.71%. In 2021, the proportion of the three expenses for silk enterprises was 6.63%, down by 0.70 percentage points year on year. The turnover rate of finished products was 8.27 times/ year, which was 1.40% faster than that of the same period in 2020. The total asset turnover rate was 1.07 times/year, which was 2.25% faster than the same period in 2020.

Judging from the situation throughout 2021, with the gradual advancement of vaccination at home and abroad, the market supply and demand was increasingly improved, the production and operation of enterprises continued to improve, and the quality and efficiency level of the industry was gradually enhanced. Nevertheless, due to the shortage of export containers, soaring freight, increasing production costs, enterprise liquidity shortage and other adverse effects, the economic operation of the industry was still facing great pressure. The comparison of main economic indicators of the silk industry in 2021 is shown in Tab. 2.

#### 1.3 Silk trade situation

1.3.1 The domestic silk market picked up steadily

According to the monitoring of the Ministry of Commerce of the People's Republic of China, the sales of 50 sample silk enterprises in 2021 read RMB3.135 billion, a year-on-year growth of 24.91%. To be specific, the sales of silk satin, home textile products, silk garments, accessories and other products were figured at RMB1.228 billion. RMB1.181 billion.

RMB379 million, and RMB223 million, respectively, with a respective year—on-year increase of 46.15%, 14.72%, 9.57%, 3.54% and 56.57%. According to the monthly sales (Fig.5), except for the sales of RMB179 million in February, the sales of other months all exceeded RMB250 million. In 2021, the average monthly sales volume increased by 24.91% year on year, showing that the silk domestic sales market gradually recovered.

1.3.2 The silk commodity exports witnessed a robust rebound

According to the General Administration of Customs of the People's Republic of China, the silk commodity exports across China amounted to US\$1.349 billion in 2021, up by 25.95% year on year. Compared with the decline in the past three years, the export values of the three major categories of goods including silk, satin and finished silk products all rebounded. Specifically speaking, the export values of silk products, satin, and finished silk products amounted to US\$267 million, US\$394 million and

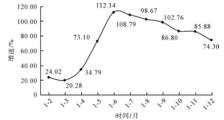


图 4 2021 年 1–12 月丝绸行业利润增速情况 Fig.4 The growth status of profits in the silk industry from January to December of 2021

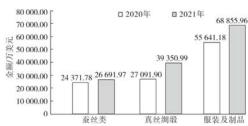


图 6 2021 年真丝绸主要商品出口金额情况 Fig.6 The export value of major silk products in 2021

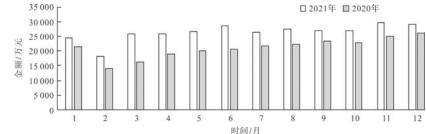


图 5 2021 年丝绸内销金额月度情况 Fig.5 Monthly amount of domestic silk sales in 2021

点,见图 3。行业利润方面,受出口市场复苏向好,内销市场有效恢复,以及丝价格持续上涨等影响,2021年上半年行业利润增速呈现出快速增长态势。尽管2021年下半年有所回落,但年底利润增速较年初仍然实现增长50.28个百分点,全年增速较2020年提高了111.94个百分点,见图 4。

#### 1.2.2 行业运行质效持续改善

2021 年丝绸行业规上亏损企业 138 家, 较 2020 年减少 97 家, 亏损企业亏损总额 3.32 亿元, 同比下降 62.81%; 亏损面 23.51%, 较 2020 年同期下降了 13.15 个百分点, 亏损面明显收窄, 但仍高于纺织行业平均水平 6.38 个百分点。企业存货 143.59 亿元, 同比增长 12.18%; 企业销售费用 9.93 亿元, 同比增长 5.37%; 财务费用 22.47 亿元, 同比下降 5.29%; 管理费用 22.47 亿元, 同比下降 11.71%。2021 年丝绸企业三费比例 6.63%, 同比下降 0.70 个百分点; 产成品周转率 8.27 次/年, 较 2020 年同期加快 7 1.40%; 总资产周转率 1.07 次/年, 较 2020 年同期加快了 2.25%。

从 2021 年全年情况看,随着国内外疫苗接种逐步推进,市场供需关系得到日益改善,企业生产经营持续好转,行业质效水平逐步提升。但由于出口货柜紧张、运费飙升,生产成本不断增加,企业流动资金短缺等不利影响,行业经济运行仍面临较大压力。2021 年丝绸行业主要经济指标对比情况见表 2。

#### 1.3 丝绸贸易情况

#### 1.3.1 丝绸内销市场稳步回暖

据国家商务部监测,2021年全国50家丝绸样本企业销售额为31.35亿元,同比增长24.91%。其中,真丝绸缎销售额12.28亿元,同比增长46.15%;家纺产品销售额11.81亿元,同比增长14.72%;真丝服装销售额3.79亿元,同比增长9.57%;服饰销售额2.23亿元,同比增长9.57%;服饰销售额2.23亿元,同比增长3.54%;其他产品销售额1.25亿元,同比增长56.57%。从分月份销售数据看(图5),除2月份销售额1.79 数据看(图5),除2月份的销售额都在2.50亿元以上,2021年月平均销售额同比增长24.91%,显示出丝绸内销市场逐步得

恢复。

#### 1.3.2 真丝绸商品出口强劲反弹

1)对主销市场出口逐步回暖。 2021年二季度以来,国内真丝绸商品出口形势开始明显回暖,对欧盟、美国等主销市场出口增幅不断扩大,加上2020年出口基数较低,排名前十位的出口方场出口金数基本都实现两位数增长。其中,对欧盟和美国分别出口37263.80万



US\$689 million, respectively, with a year-on-year rise of 9.52%, 45.25% and 23.75%, respectively (Fig. 6). The unit price of exported silk products and that of satin also increased to varying degrees, with the former being US\$46.41/kg and the latter being US\$6.12/m and a respective year-on-year rise of 5.53% and 24.39%.

1)Exports to the main sales market gradually rebounded. Since the second quarter of 2021, the export situation of domestic silk commodities started to pick up significantly, with the export growth rate to the main markets such as the EU and the USA rising continuously. Coupled with a low export base in 2020, the top ten export markets all posted double-digit growth in export value. Specifically, exports to the EU and the USA were figured at US\$372.638 million and US\$247.5195 million, respectively, with the sum accounting for 45.97% of the total, and a respective yearon-year rise of 20.98% and 19.47%. They remained the main export markets of China's silk products. Hong Kong of China, Japan and India ranked third, fourth and fifth, with exports of US\$117,347,500, US\$97,508,000 and US\$74,707,300, up by 31.19%, 25.41% and 7.94% year on year, respectively. Exports to the UK, Pakistan and Malaysia increased by 47.05%, 52.71% and 174.06% respectively (Tab. 3).

As for export products, the EU, India, Japan, Vietnam and the USA ranked the top five in terms of silk products, posting an export value of US\$109,812,000, US\$44,345,100, US\$36.7948, US\$10,5030 and US\$9,199, respectively. Among the top five export markets, the EU, Japan and the USA reported a year-on-year rise of 13.13%, 39.17% and 13.07% while India and Vietnam reported

a year-on-year decline of 10.79% and 11.20%, respectively. In terms of satin products, the EU, Hong Kong, Pakistan, India and Sri Lanka ranked the top five countries and regions. with a respective export value of US\$10.1232 million, US\$51.710,500, US\$46.378,700, US\$30.711 million and US\$22.849,600, and a respective vear-on-vear rise of 41.07%, 47.40%, 60.58%, 59.81% and 68.28%. With the exception of Turkey, which saw a vear-on-vear decline of 4.81%, all other countries and regions recorded significant year-on-year growth. As regards export markets of silk garments and products, the USA, the EU, Hong Kong, the UK and Japan ranked the top five, with the amount of China's export to the USA, the EU, Hong Kong, the UK and Japan amounting to US\$23,1,333,400, US\$161,594,400, US\$6,4022,600, US\$48,324,500 and US\$47,398,000, a vear-on-vear rise of 19.08%. 16.09%, 21.16%, 42.87%, and 16.73%, respectively.

2)Exports of major provinces and cities picked up. In 2021, the export amount of silk commodities posted an year-on-year growth of all provinces and cities across China, and the ranking is as shown in Tab.4. Among the top 10 provinces (autonomous regions and municipalities) in terms of export value, Zhejiang, Jiangsu, Guangdong, Shanghai and Shandong all posted an export value of over US\$100 million. Among them, Zhejiang still ranked the first place by accounting for 34.99% of the total, with an export amount of US\$47,199.16 million, a year-on-year growth of 20.15%. Jiangsu ranked second by accounting for 17.06% of the total, with an export amount of US\$23,084,600, a vear-on-vear growth of 23.69%. Guangdong reported an export value

of US\$14,9425,100, a year-on-year growth of 16.42% and a proportion of 11.08% of the total. Fujian, Henan and Qinghai provinces, which ranked seventh, eighth and ninth, saw a significant increase in the export value of silk commodities compared with 2020, with a year-on-year increase of 270.37%, 120.98% and 208.88% respectively.

### 1.4 Market situation of cocoon and silk trading

Since the beginning of 2021, with the overall easing of the COVID-19 pandemic, the rigid demand of domestic and foreign silk markets gradually recovered. In addition, due to the reduction of cocoon production in some areas and enterprises' hoarding, the supply of raw materials remained tight, and the price of cocoon silk steadily increased. As of the end of May 2021, the prices of dried cocoons and raw silk (grade 4A) had reached 148,400 yuan/t and 449,700 yuan/ t, respectively, up by 36.90% and 36.89% from the end of last year. On May 31, 2021, the Ministry of Commerce of the People's Republic of China issued a public announcement on releasing the 900.49 t reserved to the market, which promptly curbed the irrational rise of domestic cocoon and silk prices. In the second half of the year, the prices of dry cocoon and raw silk remained relatively stable. fluctuating within a narrow range. By the end of December 2021, the prices of dried cocoons and raw silk (grade 4A) were 148,500 yuan/t and 450,000 yuan/t respectively, which increased by 25.53% and 24.07% respectively compared with the beginning of the year. The market vitality was constantly spurred. The abovementioned information is as shown in Fig. 7 and Fig. 8.

(Source: Journal of Silk)

| 排名 | 国家和地区   | 出口金額/万美元  | 同比/%   | 占比/%  |
|----|---------|-----------|--------|-------|
| 1  | 欧盟 27 国 | 37 263.80 | 20.98  | 27.62 |
| 2  | 美国      | 24 751.95 | 19.47  | 18.35 |
| 3  | 中国香港    | 11 734.75 | 31.19  | 8.70  |
| 4  | 日本      | 9 750.80  | 25.41  | 7.23  |
| 5  | 印度      | 7 470.73  | 7.94   | 5.54  |
| 6  | 英国      | 5 767.46  | 47.05  | 4.28  |
| 7  | 巴基斯坦    | 5 605.25  | 52.71  | 4.16  |
| 8  | 韩国      | 4 430.72  | 23.52  | 3.28  |
| 9  | 澳大利亚    | 3 448.03  | 34.23  | 2.56  |
| 10 | 马来西亚    | 3 086.55  | 174.06 | 2.29  |

表 3 2021 年中国真丝绸商品主销市场出口情况 Tab.3 The export information of the major export markets of

| China's silk products in 2021 |
|-------------------------------|
| 注: 资料来自中国海关                   |

| 注: 贫   | 料来     | 自中国   | 海关   |          |       |      |       |       |      |      |      |       |
|--|--------|-------|------|----------|-------|------|-------|-------|------|------|------|-------|
| 17<br>16<br>15<br>14<br>11<br>11<br>11<br>10 | 11.8   | 12.20 | 12.8 | 17 /13   | 14.84 | 14.1 | 14.81 | 14.65 | 14.3 | 14.8 | 14.5 | 14.85 |
| 8  | ·<br>- |       |      | <u>.</u> |       |      |       |       |      |      |      |       |
|  | 1      | 2     | 3    | 4        | 5     | 6    | 7     | 8     | 9    | 10   | 11   | 12    |

时间/月 图 7 2021年1-12 月干茧价格走势 Fig. 7 The price trend of dried cocoons from January to December of 2021

| 排名 | 省市     | 出口金额/万美元  | 同比/%   | 占比/%  |
|----|--------|-----------|--------|-------|
| 1  | 浙江     | 47 199.16 | 20.15  | 34.99 |
| 2  | 江苏     | 23 008.46 | 23.69  | 17.06 |
| 3  | 广东     | 14 942.51 | 16.42  | 11.08 |
| 4  | 上海     | 11 134.72 | 9.72   | 8.25  |
| 5  | 山东     | 11 053.68 | 55.29  | 8.19  |
| 6  | 14 [2] | 7 756.22  | 58.18  | 5.75  |
| 7  | 福建     | 4 042.71  | 270.37 | 3.00  |
| 8  | 河南     | 2 487.54  | 120.98 | 1.84  |
| 9  | 青海     | 1 768.17  | 208.88 | 1.31  |
| 10 | 辽宁     | 1 680.96  | 92.38  | 1.25  |

表 4 2021 年各省市真丝绸商品出口情况

Tab.4 The export information of sllk products in various provinces and cities of China in 2021 计。资料实值中国振关

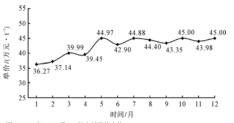


图 8 2021 年 1-12 月 4A 级生丝价格走势

Fig.8 The price trend of 4A-class raw silk from January to December of 2021

美元和 24751.95 万美元,合计出口金额占总额比重为 45.97%,同比分别增长20.98%和 19.47%,仍然是中国真丝绸商品主要出口市场。中国香港、日本、印度位列第 3、第 4、第 5 位,出口金额分别为 11734.75 万美元、9750.80 万美元和7470.73 万美元,同比分别增长 31.19%、25.41%和 7.94%。对英国、巴基斯坦和马来西亚出口金额增幅较大,分别增长47.05%、52.71%和 174.06%(表3)。

从出口产品类别来看, 丝类产品方面, 欧盟、印度、日本、越南、美国位列前五、出口金额分别为 10981.20 万美元、4434.51 万美元、3679.48 万美元、1050.30 万美元、919.00 万美元; 欧盟、日本和美国同比分别增长 13.13%、39.17%、13.07%, 印度和越南同比分别下降 10.79%、11.20%。真丝绸缎类产品方面,排名前五位的国家和地区为欧盟、中国香港、巴基斯坦、印度和斯里兰卡、出口金额分别为 1012.32 万美元、5171.05 万美元、4637.87 万美元、3007.11 万美元和 2284.96 万美元,同比分别增长 41.07%、47.40%、60.58%、59.81%、

68.28%。除土耳其同比下降 4.81% 外,其他国家和地区同比均实现大幅增长。 丝绸服装及制品方面,美国、欧盟、中国香港、英国和日本排名前五位,对美国出口金额 23133.34 万美元,同比增长 19.08%;对欧盟出口 16159.44 万美元,同比增长 19.08%;对欧盟出口 1649.44 万美元,同比增长 21.16%;对英国出口 4832.45 万美元,同比增长 42.87%;对日本出口 4739.80 万美元,同比增长 16.73%。

2) 主要省市出口复苏向好。2021 年全国各省市真丝绸商品的出口金额同 比普遍增长,排名情况见表 4。在出口 金额前十的省(区、市)中,浙江、江苏、 广东、上海、山东等省市的出口金额 超过1亿美元。其中,浙江仍然稳居首 位,出口金额 47199.16 万美元,同比增长 20.15%,总额占比 34.99%;江苏位列 第二、出口 23008.46 万美元,同比增长 23.69%,总额占比 17.06%;广东出口金 额 14942.51 万美元,同比增长16.42%, 总额占比 11.08%。排名第7、第 8 和第 9 位的福建、河南和青海三省,真丝绸商 品出口金额较 2020 年实现大幅增长,同比分别增长 270.37%、120.98% 和 208.88%。

#### 1.4 茧丝交易市场情况

2021年初以来,随着全球新冠 肺炎疫情整体趋于缓和, 国内外丝绸 市场刚性需求逐渐恢复,加上部分地 区蚕茧产量减产和企业囤货惜售影 响,原料供应持续偏紧,茧丝价格稳 步攀升。截至2021年5月底、干茧和 生丝(4A级)的价格分别达到14.84 万元/t和44.97万元/t,较上年底分 别上涨 36.90% 和 36.89%。2021年 5 月31日,国家商务部发布公告公开 放储 900.49 t 储备厂丝,及时抑制了 国内茧丝价格的非理性上涨。下半年, 干茧和生丝价格横向窄幅波动, 走势 相对平稳。截至2021年12月底,干茧、 生丝(4A级)价格分别为14.85万元 /t和45.00万元/t,较年初分别增长 25.53、24.07%, 市场活力不断显现, 见图 7、图 8。

(来源:《丝绸》)



he International Textile
Manufacturers Federation
(ITMF) 2022 Annual
Conference was held in the Swiss
town of Davos from September 17
to 20. With the theme of "Climate
Change and a Sustainable Global
Textile Value Chain", the conference
brought together more than 330
global textile industry representatives
from 35 countries and regions to
discuss and exchange views on key
issues affecting the recovery and
development of the current textile
industry.

SUN Ruizhe, president of the ITMF, presided over a series of IFTF working meetings, including the board meeting, the directors meeting and the management committee meeting. In the meanwhile, four committee meeting regarding cotton, spinning, fibres & application (F&A), and home textile producers (HTP) were held respectively, with focuses on the topics of "Recycling", "Fibres-Cotton and Man-made Fibres, "Textile (Machinery) Industry in Switzerland", "Sustainability & Circularity: Business Models of the Future", "Startups" and "Supply Chain Synergy" for comprehensive and in-depth exchanges. The newly introduced ITMF Awards" were also presented.

At the IFTF management committee meeting, the term of

office of the current IFTF president SUN Ruizhe was voted unanimously to extend for one year until October 2023. The meeting discussed the establishment of the Standardization Committee Working Group, with Christian Philipp Schindler, director general of IFTF, as the convener, to reach a consensus on the organizational framework and work direction of the committee. The conference also issued an invitation to the 2023 IFTF Annual Conference to be held in October 2023 in Keqiao, China.

(Source: China National Textile and Apparel Council Foreign Affairs Office)





9月17日至20日,国际纺织制造商联合会(ITMF)2022年会在瑞士小镇达沃斯举行。会议以"气候变化与可持续的全球纺织价值链"为主题,来自35个国家和地区的330余名全球纺织业界代表济济一堂,针对影响当前纺织业复苏与发展的关键问题进行了深入探讨与交流。

国际纺联主席孙瑞哲主持召开了国际纺织制造商联合会决策委员会会议、

理事会议、管理委员会会议等一系列国际纺联工作会议,国际纺联下设的棉花、纺纱、纤维及纤维应用、家纺生产商委员会分别召开了专业委员会会议。会议围绕"循环再利用""纤维-棉花和人造纤维""纺织(机械)工业在瑞士""可持续性和循环性——未来的商业模式""初创企业""供应链协同"等议题进行了全面深入的交流,会议新增颁发了"国际纺联奖项"。

国际纺联管理委员会会议全票通

过将现任国际纺联主席孙瑞哲任期延长一年至2023年10月,并讨论成了立标准化委员会工作组,由中国纺联副会长李陵申和国际纺联总干事克里斯汀·辛德勒担任召集人,就委员会组织框架和工作方向形成进一步共识。会议决定,2023国际纺联年会将于2023年10月在中国柯桥召开。

(来源:中国纺织工业联合会外事办)



## Hermès Silk Supply Chain: Impacts on Biodiversity 爱马仕发布《丝绸供应链对生物多样性的影响报告》

ermès is committed to sustainable development and biodiversity conservation. Silk is a key resource for Hermès and its production reflects the Company's sustainability ethos. Silk is a renewable, biodegradable resource.

The silk sourced for Hermès is produced in Brazil, the world's most biodiverse country. Hermès has committed to including biodiversity in its global development strategy. contributing towards internationally agreed biodiversity objectives. This report looks at the Company's silk supply chain, considering positive and negative environmental impacts with a focus on losses and gains for biodiversity. The three main components of silk production considered are mulberry cultivation, silkworm rearing and silk processing. Positive steps already taken to mitigate negative impacts are noted. Recommendations are made that support the values, processes of innovation and commitment to dialogue with stakeholders that are synonymous with Hermès.

Silk production takes place in the southern part of the Atlantic Forest region of Brazil which extends overall from the Brazilian northeast to northern Argentina and Paraguay. The

Atlantic Forest is a global biodiversity hotspot. The rich forest vegetation has been extensively cleared over the past five hundred years but habitats for iconic species of plants and animals remain. There is now a comprehensive legal framework for biodiversity conservation in the region. Native species diversity is dependent on both legally protected areas and the forest fragments that remain within the agricultural landscape. Carefully managed silk production can support the conservation of biodiversity within the region.

Hermès local partner, the only silk export company in Brazil, is a signatory to the UN Global Compact. It applies environmental standards of excellence to its integrated production and supply chain. Contracts with silk producers specify environmental requirements in line with National and State legislation. Additional environmental guidance and advice are provided by the Company on a regular basis.

#### Conclusion

Nature is declining at unprecedented rates with one million species threatened with extinction. Protecting and restoring nature is fundamental not only to global economic prosperity, but to the health and wellbeing of society.

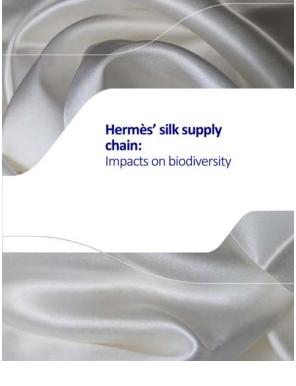
The silk production system is of relatively low environmental impact, especially when compared to neighbouring agricultural activities such as soy and sugarcane.

The growth of silkworms depends on a diet exclusively based on the leaves of the mulberry tree. Mulberry plantations sequester carbon, prevent erosion and help regenerate the soil. Far fewer agrochemicals are used in mulberry cultivation especially compared to the surrounding farmland where soybeans and sugarcane are grown.

Waste from mulberry cultivation and silkworm rearing is largely recycled within the production system. Virtually every piece of the cocoon as well as other co-products of the silk industry are used, for everything from fish food to fabric. Such circularity reduces the demand for raw materials, which means that more space can be left for nature.

Silk production in Brazil can be celebrated for its positive environmental benefits. However, there is still potential to create greater benefits for the biodiversity that persists in the fragmented Atlantic Forest region.

(Source: University of Cambridge Institute for Sustainability Leadership)



UNIVERSITY OF CAMBRIDGE

ASTITUTE FOR
SUSTAINABLITY LEADERSHIP

马仕敦力于可持续发展和生物 多样性保护。丝绸——种可 再生、可生物降解的资源,是 爱马仕的重要来源,其生产反映了爱马仕的 可持续发展精神。

爱马仕采购的丝绸产自世界上生物多样性最丰富的国家巴西。 爱马仕床 诸将生物多样性最大,发导性原语,为实现国际商定的生物多样性目标做出贡献。本报告着眼于公司的丝绸供应链、考虑积极和消极的环境影响,重点关注生物多样性的损失和收益。 经網的生产由于主要部分组成:秦树种植、养蚕和丝绸加工。通过积极措施来减轻负面影响已经引起重视。提出的建议符合爱马仕价值观,创新过程和与利益相关者对话的承诺是多品件的代名词。

巴西大西洋森林地区的丝绸生产主要集 中在南部,该地区从巴西东北部延伸到阿根 延北部和巴拉圭。大西洋森林是全球生物多 样性热点地区。在过去的五百年里,丰富的 森林植被已被广泛清除,但标志性动植物物 种的栖息地仍然存在。该地区现已建立了一 个全面的生物多样性保护法律框架。本土物 种的多样性依赖于法律保护区和保留在农业 景观中的森林碎片。精心管理的丝绸生产可 以支持该地区的生物多样性保护。

爱马仕当地合作伙伴是巴西唯一的丝绸 出口公司,是联合国全球契约的签署方。它 将卓越的环境标准应用于其集成的生产和供 应链。与丝绸生产商签订的合同规定了符合 国家和州立法的环境要求。公司定期提供额 外的环境指导和建议。

#### 结论

大自然正以前所未有的速度衰退,有 100万种物种濒临灭绝。保护和恢复自然不仅 是全球经济繁荣的基础,也是社会健康和福 祉的基础。

丝绸生产系统对环境的影响相对较小, 尤其是与相近的大豆和甘蔗等农业活动相比。

蚕的生长完全依赖桑叶,桑园可以隔离 碳、防止侵蚀并促进土壤再生。与种植大豆 和甘蔗的周边农田相比,桑树种植使用的农 用化学品要少得多。

桑树种植和养蚕产生的废物大部分在生 产系统内回收利用。几乎每一件蚕茧以及绝 绸工业的其他副产品都被用于从鱼食到织物 的各种用途。这种循环减少了对原材料的需 求,这意味着可以为自然留下更多的空间。

巴西的丝绸生产因其积极的环境效益而 备受赞誉。而且,仍然有可能为碎片化的大 西洋森林地区持续存在的生物多样性创造更 大的利益。

(来源: 剑桥大学可持续领导力学院)



## EBN Speeds up the R&D and Application of Activated Silk™ Technology 美国绿色化学品公司加快 Activated Silk ™技术的研发与应用

volved By Nature (EBN)
has raised US\$120 million
in Series C financing in
a round led by Teachers' Venture
Growth and Senator Investment
Group, with participation from Chanel
in the round after acquiring a minority
stake in the company in June 2019.

Evolved By Nature is committed to the development of Activated Silk ™ technology for multi-industry exploration, and has achieved certain achievements in the fields of biodegradable coatings (fiber modification and food preservation), skin care barrier technology, etc. According to Rebecca Lacouture, cofounder and president of EBN, this financing aims to break the top limit of development technology by making Activated Silk ™ liquid silk available to global development partners, so as to expand the boundaries of regenerative medicine and regenerative medicine.

Since 2019, European industries have gradually stepped into the era of environmental protection, and recycled materials and clean energy made from waste products and wastes have been fully developed and utilized. Activated Silk <sup>TM</sup> is a bio–technology based on the concept of environmental protection, which will move the global market and industries gradually away

from dependence on synthetics and fossil fuel derivatives and expand the boundaries of regenerative medicine by replacing the proportion of petroleum fuels/ingredients in the supply chain of major industries with active silk materials.

Based on Evolved By Nature's calculations, more than 8,000 chemicals are used in the global fashion industry per year on average, and the total amount is increasing by "40 million tons +" on a yearly basis. Chemicals used in skin care, beauty cosmetics and ready-to-wear washing will all flow into seawater along the pipeline and enter the global ecological cycle.

EBN hopes to change this by developing an environmentally friendly formulation based on activated silk that is suitable for various industries. EBN's technology direction and application industries will not only reduce the use of chemicals, but also help mitigate global warming. EBN currently produces 150 metric tons of Activated Silk ™ per vear - a 500% increase in capacity from 2021. In June, 2022, EBN launched a new plant project in Walpole, Massachusetts, which is expected to the capacity to generate 900 metric tons of Activated Silk ™ per year in 2024. Based on

Evolved By Nature's calculations, this would represent 900M jars of petrochemical free skincare, 150M square feet of biodegradable, polyurethane—free leather, sustainable finishing chemistry for 195M pieces of performance apparel, or a replacement for 7,200 metric tons of non-biodegradable petrochemical surfactants regularly washed into waterways via skin cleaning products.

In 2022, EBN's Activated Silk ™ high-performance coating was used by the fashion brand Anya Hindmarch, nylon maker Alpine Creations and leather producer Richard Hoffmans GmbH & Co. KG, among others. The fashion industry has huge potential to grow, with coatings expected to account for 30% of EBN's sales by 2024.

At the same time, apart from cocoon extraction, EBN is also developing related technologies for extracting silk protein from used clothes, silk and silk waste, so as to realize the recycling of materials from the source, replace traditional industries with new technologies, and further solve the emission problems that have plagued textile enterprises all the year round.

(Source: Silktech)



日,美国绿色化学品公司(EBN)完成由 Teachers' Venture Growth 和 Senator Investment Group 领投的 1.2 亿美元 C 轮融资, 法国香奈儿集团继 2019 年 6 月收购该公司少数股权后,也再次参与了本轮融资。

EBN 致力于开发 Activated Silk ™丝蛋白技术面向多业态的技术探索,当前已在可降解涂层(纤维改性和食品保鲜方向)、护肤屏障技术等领域取得一定成就。EBN联合创始人兼主席 Rebecca Lacouture 表示,本次融资旨在突破开发技术的上限,将 Activated Silk ™液态蚕丝提供给全球的发展伙伴,进一步扩大再生医学、再生药物的边界。

2019 年起,欧洲各产业开始逐渐步入环保化时代,利用废弃产品、废料制作的再生材料和清洁能源得到充分开发和利用。Activated Silk M是一项基于环保理念诞生的生物技术,以活性蚕丝材料替代各大产业中使用石油燃料/成分的供应链比重,帮助全球市场及各产业在源头逐步摆脱对合成材料、化石燃料衍生物的使用依赖。

据 EBN 计算,全球时尚产业平均每年使用超过 8000 种化学制品,总用量正以\*4000 万吨+\*的趋势逐年递增。 无论是护肤、美妆,还是成衣洗涤,都会使化学物质沿着 管道流入海水中,进入全球生态大循环。 EBN 希望改变此现状,以活化丝为基础,开发出适用于各行业且对环境无害的配方产品。EBN 的技术方向和应用产业不但可减少化学制品使用,还可以帮助缓解全球变暖。2022年,EBN 实现Activated Silk ™年均产能150吨,相较2021年实现同比增幅500%。同年6月,EBN 启动马萨诸塞州沃波尔的新工厂项目,在新融资到位后,有望在2024年实现年均产能900吨。经计算,900吨 Activated Silk ™可替代9亿罐无石化护肤品、1500 万平方英尺可生物降解的无聚氨酯皮革、1.95 亿件高定服装、7200吨可生物降解的表面活性剂产生的有事化学品用量。

2022 年,时尚品牌 Anya Hindmarch、尼龙生产商 Alpine Creations、皮革生产商 Richard Hoffmans GmbH & Co. KG 等企业都使用了 EBN 的 Activated Silk ™高性能涂 层。时尚产业拥有巨大的发展空间,预计到 2024 年,各 美涂层业务的销售额将会占 EBN 总销售额的 30%。

与此同时,除使用蚕茧提取外,EBN 也正在开发从旧衣物、丝绸、蚕丝废料中提取丝蛋白的相关技术,从源头上实现材料的再生利用,以新技术替代传统产业,进一步解决第年困扰纺织企业的排放问题。

(来源: Silktech)



## INTERSOIE France Profiles 法国丝绸协会简介



INTERSOIE France is the French professional association, gathering all companies involved in the production, the use and the trade of silk. Its mission is to promote and defend the interests of the French Silk industry across the world. INTERSOIE France comprises 30 members gathering all the professions from silk yarn to the silk fabric, including dyeing, printing and finishing. INTERSOIE is made up of prestigious Lyon-based companies and a fabric of small and medium sized industrial enterprises.

INTERSOIE France is the member of the Silk Section of the International Association of Users of Artificial and Synthetic Filament Yarns and of Natural Silk (AIUFFASS ), and the vice chairman member of International Silk Union (ISU).

Main stakes:

Quality of the raw silk: regular supply of high quality raw silk, standardization...;

Top quality at each stage of the pipeline, sustainability (restriction on nonylphenol, for instance);

Fair trade and fair competition;

No barriers to market access;

Fight counterfeit and piracy and enforce intellectual property rights;

Standardization of silk textile articles.

法国丝绸协会是法国一家专业性的行业协会,聚集了主要从事丝绸生产、使用和贸易的企业,协会使命是促进和保护法国丝绸业在全球的利益。法国丝绸协会由里昂知名企业和中小型企业组成,拥有约30家成员,涵盖了从丝线到面料生产的各环节,包括染色、印花和后整理。

法国丝绸协会是国际人造及合成纤维长丝纱线用户协会(AIUFFASS)丝绸分会的成员,也是国际丝绸联盟副主席单位。主要任务:

生丝的质量: 定期供应高质量的生丝、标准化 ...;

在供应链和可持续各阶段对高品质的把关(例如,对壬基酚的限制);

公平贸易与公平竞争;

无障碍市场准入;

打击假冒和盗版并执行知识产权;

关于真丝纺织品的标准化。



## ISU Profiles 国际丝绸联盟简介

International Silk Union (ISU) is an international and specialized non-profit social organization in which enterprises and related organizations from the silk producing and consuming countries participate voluntarily. The secretariat is located in Hangzhou, China. Since its foundation in October 2015, there have been nearly 140 enterprises and organizations from 24 countries and regions joining ISU, including China, Italy, France, Switzerland, Brazil, Poland, Japan, Turkiye, Thailand, India, Vietnam, Cambodia, Myanmar, Indonesia, Singapore, the USA, Australia, Uzbekistan, Bangladesh, Laos, Iran, Pakistan, Romania and Hong Kong(China), among which there are 46 executive member units and 11 vice chairman units. Especially China Textile Engineering Society, Ufficio Italiano Seta, INTERSOIE France, Brazilian Silk Association, Vietnam Sericulture Association, Cambodia Silk Sector Promotion and Development Commission, and Iran Silk Research Center have joined as countries or regions, and their influence radiates to the world's major silk enterprises and research institutions. In 2020, ISU was included in the "Yearbook of International Organizations", Union of International Associations(UIA), becoming the first silk international organization in the UIA with the secretariat being located in China. In 2021, ISU signed a strategic cooperation agreement to establish a dialogue partnership with International Sericulture Commission (ISC), an intergovernmental international organization.

Adhering to the purpose of "Communication & Cooperation, Development with Concerted Efforts", ISU actively docks international exchanges and cooperation, holds international conferences, organizes international inspections, and establishes the professional committees in silk field including History Culture, Education Research, Technical Innovation, Fashion Design, etc. In order to smooth information exchanges, ISU establishes the official website of "World Silk Website" and Self-Media Matrix, hosts the proceeding of ISU News, co-hosts the professional journal of Journal of Silk, which integrates the journals, official bilingual websites, WeChat, Toutiao, Sohu, Baijia and Tencent, etc., promoting the international integration and development of silk culture and industry. The chairman of ISU is Zhang Guoqiang, chairman of the board of Cathaya group. The secretary-general of ISU is Li Qizheng, director of Hangzhou Oriental Silk Culture and Brand Research Center, and president of Periodicals Agency of Zhejiang Sci-Tech University.



国际丝绸联盟(ISU)是由全球各丝绸生产、消费国的企业与相关组织自愿参加的国际化、专业化的非营利性社会组织。秘书处设在中国杭州。自 2015 年 10 月创始成员大会召开以来,已有来自中国、意大利、法国、瑞士、巴西、波兰、日本、土耳其、泰国、印度、越南、柬埔寨、缅甸、印度尼西亚、新加坡、美国、澳大利亚、乌兹别克斯坦、孟加拉国、老挝、伊朗、巴基斯坦、罗马尼亚和中国香港 24 个国家和地区的近 140 家企业和组织加入。其中,包括副主席单位 11 家,常务理事单位 46 家,特别是中国纺织工程学会、意大利丝绸协会、法国丝绸协会、巴西丝绸协会、越南蚕桑协会、柬埔寨丝绸行业促进发展委员会、伊朗丝绸研究中心等国家级行业组织加入,影响力辐射到全球主要丝绸企业和研究机构。2020 年,国际丝绸联盟被国际协会联盟(UIA)《国际组织年鉴》收录,成为 UIA 收录的第一家秘书处设在中国的国际丝绸行业组织。2021 年,国际丝绸联盟与政府间国际组织国际蚕业委员会(ISC)签署战略合作协议,建立了对话伙伴关系。

国际丝绸联盟秉承"交流合作 携手发展"的宗旨,积极对接国际交流与合作,举办国际会议,组织国际考察,并组建了丝绸领域的"历史文化""时尚设计""教育科研""技术创新"等专业委员会。为畅通信息交流,国际丝绸联盟设立了"世界丝绸网"官网和自媒体矩阵,主办国际丝绸联盟会刊《ISU News》,联办专业期刊《丝绸》,集期刊、官方双语网站、微信公众号、头条号、搜狐号、百家号、企鹅号等于一体,以促进国际丝绸文化和产业的融合发展。现任国际丝绸联盟主席为凯喜雅集团董事长张国强,秘书长为杭州东方丝绸文化与品牌研究中心主任、浙江理工大学杂志社社长李启正。



#### **Executive Members**

01 Italian Silk Office (Italy)

02 High Fashion International Limited (Hong Kona)

03 The Thai Silk Company Limited (Thailand)

04 Fabric Plus Pvt. Limited (India)

05 Hoi An Silk Group (Vietnam)

06 Risa Overseas (Brazil)

07 Maruhachi Kiito Co., Ltd. (Japan)

08 Spun Silk World Co. Ltd. (Thailand)

09 Zheijang Cathava International Co., Ltd.

10 China National Silk Museum

11 Guangdong Silk-Tex Group Co., Ltd.

12 Zhejiang Sci-Tech University

13 Jiangsu SOHO International Group Corp.

14 Shanghai Silk Group Co., Ltd.

15 Shandong Silk Group Co., Ltd. 16 Guangxi Silk Group Co., Ltd.

17 Hangzhou Oriental Silk Culture and Brand

Research Center

18 National Engineering Laboratory for Modern

19 State Key Laboratory of Silkworm Genome Biology (Southwest University)

20 Instutite of Sericultural Research, Chinese Academy of Agricultural Science

21 China National Silk and Garments Quality

Supervision Testing Center 22 China Cocoon & Silk Exchange

23 Sichuan Academy of Silk Sciences

24 Zhejiang Jiaxin Silk Co., Ltd.

25 Shandong Hirun Investment Group Co., Ltd. 26 Wensli Group Co., Ltd.

27 Silk Road Holding Group Co., Ltd.

28 Zhejiang Zhongwei Silk Group Co., Ltd. 29 Xinyuan Cocoon Silk Group Co., Ltd.

30 Zibo Daranfang Silk Group Co., Ltd.

31 Chongging Wintus New Star Enterprises Groun

32 Yunnan Baoshan Ligen Silk Group Co., Ltd.

33 Zhejiang Golden Eagle Co., Ltd.

34 Zhejiang Meorient Business Exhibition Co.,

35 INTERSOIE France (France)

36 Cambodia Silk Sector Promotion and Development Commission (Cambodia)

37 Vietnam Sericulture Association (Vietnam)

38 Brazilian Silk Association (Brazil) 39 Matsumura Co., Ltd. (Japan)

40 Kailpar Engineering Co., Ltd (India)

41 THM International Import & Export Pte Ltd. (Singapore)

42 Sichuan Nanchong Liuhe Group Co., Ltd.

43 Sichuan Sachem Textile Co., Ltd.

44 Trudel Fashion Group (Switzerland) 45 PT. Sutra Alam Nusantara (Indonesia)

46 Shanghai Pudong Technology

Entrepreneurship Promotion Center

#### **Executive Members**

01 Asian Silk Alliance

02 Coponat SA (France)

03 Hokusei Sangyo Co., Ltd. (Japan)

04 Kyauk Se Silk Co., Ltd. (Burma)

05 Crown Textile Pte Ltd. (Indonesia)

06 Sovereign Crown Pte Ltd. (Australia)

07 Chuwa Co., Ltd. (Japan)

08 Yokohama Matsumura Co., Ltd. (Japan)

09 Zhejiang Academy of Science & Technology 40 Artisan Angkor Co., Ltd. (Cambodia)

for Inspection & Quarantine

10 Jiaxing Idea Silk Co., Ltd.

11 Rizhao Haitong Silk Group Co., Ltd.

12 Anhui Jingjiu Silk Joint Stock Company

13 Shenzhen China Silk Enterprise Limited

14 Guangxi Huahong Silk Share Co., Ltd.

15 Jiangxi Lvdong Silk Technology Industrial

Co., Ltd.

16 Hubei Yilian Sericulture Technology Co., Ltd. Ltd.

17 Ankang Bashan Silk Co., Ltd. 18 Liaoning Caiyi Wild Silk Products Co., Ltd.

19 Jin Fuchun Group Co., Ltd.

20 Sichuan Fflourish Silk Co., Ltd.

22 Zhejiang Huzhou Meiyue Knitting Co., Ltd.

23 Zhejiang Misai Silk Co., Ltd.

24 China Silk Capital Nanchong Silk Culture Inetitute

25 Chun'an Cocoon & Silk Co., Ltd.

26 Chongqing Sunfeel Intlligent Technology

27 Hangzhou Textile Machinery Co., Ltd.

29 Shandong Guangtong Silkworm Group Co., 58 Vietnam Sericulture Corporation - Joint

30 Hangzhou Wanfu Trading Co., Ltd.

31 Suzhou Taifa Coloured Thread Weaving Co., 60 Dokoh Shoji Co., Ltd. (Japan) Ltd.

32 Hangzhou Niteer Weave Co., Ltd.

33 Hangzhou Yihui Cultural Creative Co., Ltd.

34 Journal of Silk 35 Sichuan Ygor Textile Co., Ltd.

36 Huzhou Ling Silk Institute

37 Hangzhou World Silk Co., Ltd.

38 Nanchong Yinhai Silk Co., Ltd. 39 SentoSaSilk (Cambodia)

41 Institute of Nature Fibers and Medicinal Plants (Poland)

42 Zheijang Meijjabjao Garment Co., Ltd.

43 VESITH DEVY Sik Association (Cambodia) 44 Jinchengjiang Xinxing Cocoon Silk Co., Ltd. 45 Suzhou Embroidery Research Institute Co.,

46 Tongxiang City Heshan Weiye Textile Co.,

47 Hangzhou I Yu In Soul Garments Co., Ltd.

48 Hangzhou Jin Yiming Textile Silk Co., Ltd. 49 Hangzhou Vocational and Technical College

50 Beijing Kaili Silk Co., Ltd.

21 Wujiang City Dingsheng Silk Group Co., Ltd. 51 Guangxi Guihe Group Co., Ltd. 52 Zhejiang Huazhi Silk Co., Ltd.

53 Hangzhou Hualong Weaving Machine Co.,

54 Huzhou Institute of Quality and Technical Supervision and Testing (National Cocoon and

Silk Quality Supervision Inspection Center) 55 Huzhou Baby Sericulture Co., Ltd. 56 Hangzhou Newjiexiu Silk Co., Ltd.

28 Sichuan Silunxing Import & Export Trading 57 Hangzhou Jixiang Import and Export Co.,

Stock Company (Vietnam)

59 August Silk Inc (USA)

61 Nanchong Shang Hao Mublerry Tea Co., Ltd. 62 Suzhou Xiancan Silk Biotech Co., Ltd.

63 Huzhou Mu Chen Culture Development Co.,

64 Hangzhou Aurora Industrial Co., Ltd.

65 Guangxi Cocoon & Silk Exchange Co., Ltd.

66 Shengzhou City Necktie Association

67 Maidilang Group Co., Ltd.

68 Hangzhou Honghua Digital Technology Stock Co., Ltd. (China)

69 Kei Meas Handicrafts (Cambodia)

70 Lao Sericulture Co., Ltd. (Laos) 71 Uzbek Research Institute of Natural Fibers

72 Technology Center of Nanning Customs

District

73 Tarim University 74 Hand Touch (Bangladesh)

75 Color Silk (Cambodia)

76 Profits Fund Global Holding Ltd. (Hong Kong, China)

77 Sichuan Antai Cocoon Silk Group Co., Ltd. 78 Zheijang Canyuan Home Textile Co., Ltd.

79 Zhejiang Light Industrial Products Inspection and Research Institute

80 Hangzhou China Silk Town

81 Qianteng Exhibition (Suzhou) Co., Ltd. 82 Suzhou Institute of Trade & Commerce

83 China Textile Engineering Society (China) 84 Filande Levade SA (Switzerland) 85 Bahauddin Zakariya University College of

Textile Engineering (Pakistan) 86 Iran Silk Research Center (ISRC)

87 SS Bursa Koza Tarim Satis Kooperatifleri Birlini (KOZABIBLIK) 88 Italtextil Sarata SRL (Romania)

#### 常条理事单位

01 意大利丝绸协会 (意大利)

02 达利国际集团有限公司(香港)

03 The Thai Silk Company Limited (泰国) 04 Fabric Plus Pvt. Limited (印度)

05 Hoi An Silk Group (越南)

06 Bisa Overseas (巴西) 07 丸八生糸株式会社(日本)

08 Spun Silk World Co., Ltd. (泰国)

09 浙江凯喜雅国际股份有限公司

10 中国丝绸博物馆 11 广东省丝绸纺织集团有限公司

12 浙汀理丁大学 13 江苏苏豪国际集团股份有限公司

14 上海丝绸集团股份有限公司 15 山东省丝绸集团有限公司

16 广西丝绸 (集团) 有限公司

17 杭州东方丝绸文化与品牌研究中心 18 现代丝绸国家工程实验室(苏州)

19 家蚕基因组生物学国家重点实验室(西南 大学)

20 中国农业科学院蚕业研究所

21 国家丝绸及服装产品质量监督检验中心

22 中国茧丝绸交易市场 23 四川省丝绸科学研究院

24 浙江嘉欣丝绸股份有限公司 25 山东海润投资集团有限公司

26 万事利集团有限公司

27 丝绸之路控股集团有限公司

28 浙江中维丝绸集团有限公司 29 鑫缘茧丝绸集团股份有限公司

30 淄博大染坊丝绸集团有限公司 31 重庆宏美达欣兴实业(集团)有限公司 32 云南保山利根丝绸有限公司

33 浙江金鹰股份有限公司 34 浙江米奥兰特商务会展股份有限公司

35 法国丝绸协会(法国)

36 柬埔寨丝绸行业促讲发展委员会(柬埔寨)

37 巴西丝绸协会(巴西) 38 越南蚕桑协会(越南)

39 松村株式会社(日本) 40 Kailpar Engineering Co., Ltd (印度)

41 THM International Import & Export Pte Ltd. (新加坡)

42 四川南充六合集团有限责任公司

43 四川顺成纺织品有限公司

44 Trudel Fashion Group (瑞士) 45 PT. Sutra Alam Nusantara (印度尼西亚)

46 上海浦东技术创业促进中心

#### 理事单位

01 亚洲丝绸联盟

02 Coponat SA (法国)

03 北西产业株式会社(日本)

04 Kyauk Se Silk Co., Ltd. (缅甸)

05 Crown Textile Pte Ltd. (印度尼西亚)

06 Sovereign Crown Pte Ltd. (澳大利亚)

07 中和株式会社(日本) 08 横浜松村株式会社(日本)

09 浙江省检验检疫科学技术研究院 10 嘉兴埃迪尔丝绸有限公司

11 日照海通茧丝绸集团有限公司

12 安徽京九丝绸股份公司 12 深圳华丝企业股份有限公司

14 广西华虹蚕丝股份有限公司 15 汀两省绿冬丝科实业有限责任公司

16 湖北怡莲蚕桑科技股份有限公司 17 安康巴山丝绢有限责任公司

18 辽宁采逸野蚕丝制品有限公司 19 金富春集团有限公司

20 四川朗瑞丝绸有限公司 21 吴江市鼎盛丝绸有限公司

22 浙江湖州梅月针织有限公司 23 浙江米赛丝绸有限公司 24 中国绸都南充丝绸文化研究会

25 淳安县茧丝绸有限公司 26 重庆祥飞智能科技有限公司

27 杭州纺织机械有限公司 28 四川丝纶兴进出口贸易有限公司 29 山东广通蚕种集团有限公司

30 杭州丸富贸易有限公司 31 苏州泰发花线织造有限公司 32 杭州尼特尔纺织有限公司

33 杭州一慧文化创意有限公司 34 《丝绸》杂志社

35 四川依格尔纺织品有限公司 36 湖州绫绢研究所

37 杭州天下丝绸有限公司 38 南充银海丝绸有限公司

39 SentoSaSilk (柬埔寨) 40 Artisan Angkor Co., Ltd. (柬埔寨)

41 Institute of Nature Fibers and Medicinal Plants (波兰)

42 浙江美嘉标服饰有限公司 43 VESITH DEVY Sik Association (東埔寨)

44 金城江新兴茧丝有限公司 45 苏州刺绣研究所有限公司

46 桐乡市河山伟业纺织有限责任公司 47 杭州衣语无香服饰有限公司

48 杭州金怡明纺织丝绸有限公司 49 杭州职业技术学院 50 北京凯丽丝绸有限公司

51 广西桂合集团有限公司 52 浙江华芝丝绸股份有限公司 53 杭州华龙纺织机械有限公司

54 湖州市质量技术监督检测研究院(湖州市 纤维质量监测中心、国家茧丝质量监督检验

中心) 55 湖州宝宝蚕业有限公司 56 杭州新洁绣丝绸有限公司

59 August Silk Inc (美国)

60 同兴商事株式会社(日本)

57 杭州吉祥进出口有限公司 58 Vietnam Sericulture Corporation -Joint Stock Company (越南)

61 南充尚好桑茶有限公司

62 苏州先蚕丝绸生物科技有限公司 63 湖州沐晨文化发展有限公司

64 杭州奥罗拉实业有限公司 65 广西大宗茧丝交易市场有限责任公司

66 嵊州市领带行业协会

67 麦地郎集团有限公司 68 杭州宏华数码科技股份有限公司

69 Kei Meas Handicrafts (東埔寨)

70 Lao Sericulture Co., Ltd. (老村) 71 Uzbek Research Institute of Natural

Fibers (乌兹别克斯坦) 72 南宁海关技术中心

73 塔里木大学 74 Hand Touch (孟加拉国)

75 Color Silk (柬埔寨) 76 利达丰环球控股有限公司(中国香港)

77 四川安泰茧丝绸集团有限公司 78 浙江蚕缘家纺股份有限公司 79 浙江省轻工业品质量检验研究院

80 杭州中国丝绸城 81 骞腾会展(苏州)有限公司

82 苏州经贸职业技术学院 83 中国纺织工程学会 84 Filande Levade SA (瑞士)

85 Bahauddin Zakariya University College of Textile Engineering (巴基斯坦) 86 Iran Silk Research Center (ISRC) (伊朗)

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