

# 星辉数控 EXCITECH



领先·创新——专注家具产业智慧化生产

## 自动化解决方案

- 智能信息化工厂生产解决方案
- 板式家具生产解决方案
- 智慧包装生产解决方案
- 橱柜门板生产解决方案
- 实木生产解决方案
- 五轴联动加工(先进材料)生产解决方案
- 雕刻设备生产解决方案
- 软件应用方案

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# We Are EXCITECH®

EXCITECH® 星辉数控是一家专注于自动化木工数控设备研发、制造及生产软件开发和应用的企业，北方基地位于济南国家级高新开发区，华南生产基地位于广东肇庆大旺国家高新区，是高新技术企业。

- ◆ 我们专注于打造家具产业智能工厂，产品涵盖板式家具生产线设备、裁纸机、数控开料机、数控裁板锯、激光封边机系列、数控排钻加工中心系列、镗铣加工中心系列、全系列五轴立体化加工中心、不同规格型号的加工中心和雕刻机等机械设备，广泛应用于板式家具、定制橱柜衣柜、五轴三维立体化加工、实木家具等非金属数控加工领域。
- ◆ 我们是国内率先能够进行专业智能工厂整厂规划并提供相关成套设备及软件的厂家，全球上百套成熟落地案例，我们的数控开料设备、全自动封边机、高速排钻加工中心及包装线系列产品，结合自动化软件的定制家具柔性加工生产线，能够真正为您量身打造板式橱柜衣柜生产的一揽子解决方案，将定制化纳入规模化生产。
- ◆ 我们的质量标准定位与欧美同步，全线产品标配国际品牌零部件，是国内少数采用数控加工设备加工全部机械零部件的厂家，配合先进的加工和装配工艺，并有严格的过程质检把关，致力为用户提供长期工业化使用下稳定可靠的设备，产品已出口100多个国家和地区。
- ◆ 我们的技术能帮助您以更简单的方式、用更低的投入以及更少的时间，将理念和设计迅速转化为产品，提高您的工业自动化水平，摆脱对技术工人的依赖，有效地提高管理效益和生产效益。

真诚的欢迎您来公司实地考察参观，我们的理念和品质您可亲眼见证！



山东济南北方生产基地



广东肇庆南方生产基地

## 专注品质、注重服务、全心全意为用户创造价值

### Honors 企业荣誉 截至到2024年初统计

<p>49项 国家认定的荣誉及奖项 National Awards</p> 	<p>40项 软件著作权 Software Copyright</p> 	<p>160项 发明及实用新型专利 Invention and Awards</p> 
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定制家具生产线科技鉴定为“国内领先水平”  
 公司荣誉  
 “高新技术企业”  
 山东省专精特新企业  
 第一批“高端装备制造创新型企业”  
 “山东省工程技术研究中心”  
 “山东省科技进步一等奖”  
 ... ..



了解更多

### Partners 合作伙伴 我们还有更多合作伙伴，期待您的加入！

声明：以上排名不分先后，客户名称及商标所有权归客户所有，不做任何其他用途！

# We Are **EXCITECH**<sup>®</sup> —

## Quality Defines Us

### Global Presence, Local Reach

Excitech has proven itself quality-wise by its successful presence in over 100 countries worldwide. Supported by a strong and resourceful sales and marketing network as well as technical support teams who are well trained and committed in providing our partners the best possible service, Excitech has gained a global reputation as one of the most reliable and trusted CNC machinery solution providers. Excitech provides 24hr factory support with a team of highly experienced engineers that serve customers and partners around the world, around the clock.

### A Commitment to Excellence

Excitech, a professional machinery manufacturing company, was established with the most discriminating customers in mind.

### Your Needs, Our Driving Force!

We are committed to making your business a success by providing customized solutions necessary in achieving your goals. The seamless integration of our machineries with industrial automation software and system enhances our partners' competitive advantages by helping them achieve:

### State-of-the-Art Products and Facilities

Our wide variety of readily available high quality portfolio includes Fully Automatic Smart Factory, Panel Furniture Production Solutions, Packaging Solutions, Multi-Sized 5-axis Machining Centers, Panel Saws, Point-to-Point Work Centers and other machineries dedicated to woodworking and other key applications.

Quality is never outsourced—The whole manufacturing process is meticulously and systematically controlled to achieve the guaranteed precision and quality.

- ◆ High quality products with the high production efficiency
- ◆ Lower costs thus measurable savings
- ◆ Shortened production time
- ◆ Maximized capacity for better profits
- ◆ Dramatically reduced cycle times

### 产品远销

### 100多个国家和地区

EXCITECH has proven itself quality - wise  
by its successful presence in over 100 countries worldwide

### 服务网点覆盖全球，售后无忧

Global presence + 7/24 online support



Quality, Service and Customer Centric while Creating Unending Value  
—These are the Fundamentals of EXCITECH



瑞士ABB战略合作 Join Force with ABB



# Smart Factory Total Solutions



全球上百套成熟落地方案  
已为多家用户高效生产保驾护航

Countless Customers Benefited from Smart Factory  
--Contact Us for Tours

## 智能信息化工厂整厂解决方案 组合灵活、工艺多变 打造符合客户整厂需求的智能化生产模式

We understand different applications require different manufacturing equipments.  
Thus we personalize the projects so each of investors can produce with the right technologies that match their exact needs.



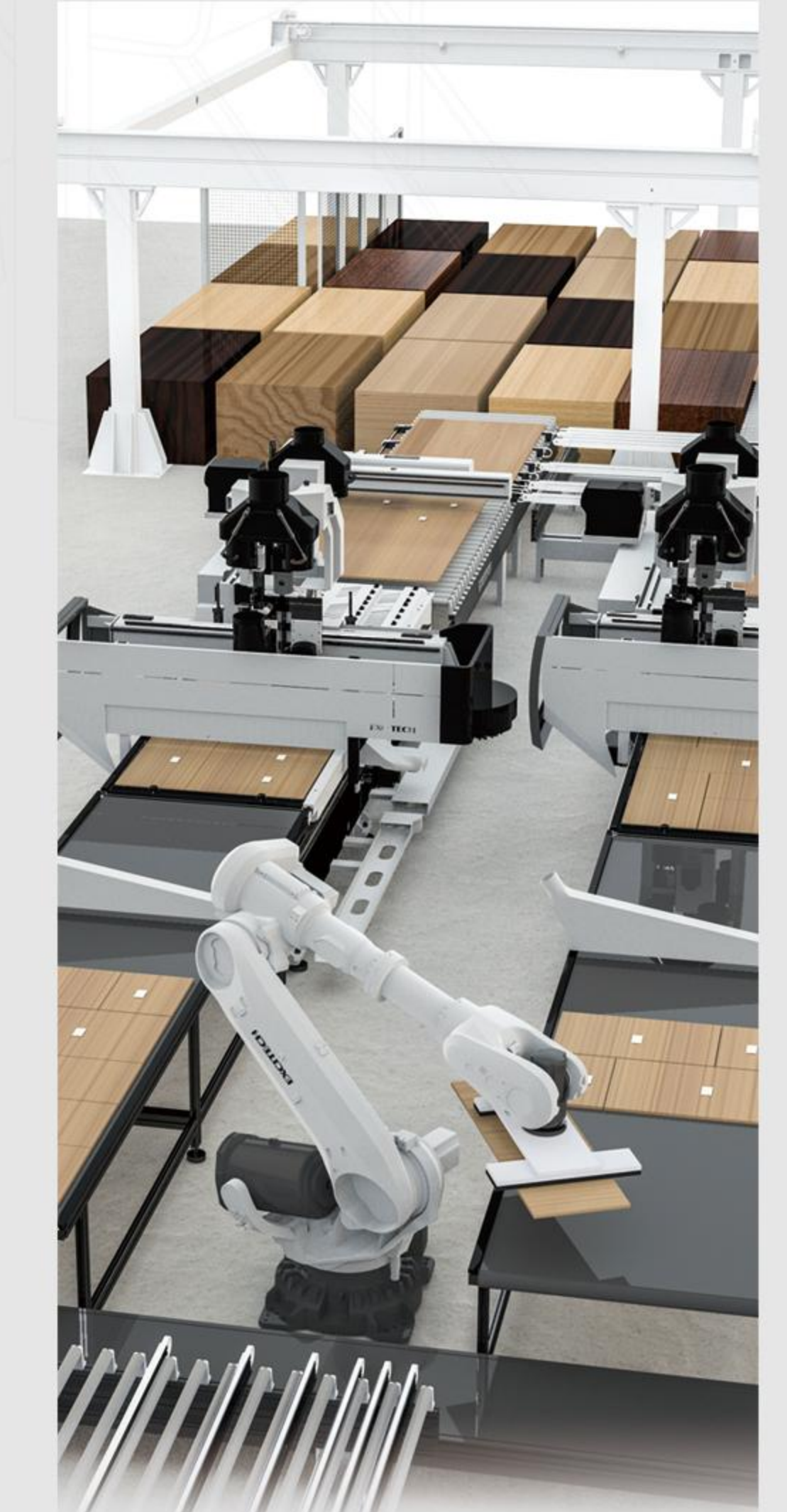
柔性化  
Flexible



信息化  
Intuitive



自动化  
Automated



智能化  
Intelligent

## 目录 Contents

### 智能工厂生产解决方案 SMART FACTORY

智能工厂简介 ..... 3  
Introduction

智能工厂客户实例 ..... 9  
Customer Spotlights

智能工厂软件建设 ..... 11  
Software Implementation

### 智慧包装生产解决方案 SMART PACKAGING

智慧包装线 ..... 19  
Smart Packaging Line

智慧纸箱裁切机 ..... 21  
Smart Carton Machine

### 板式家具生产解决方案 PANEL FURNITURE SOLUTION

数控开料设备 ..... 27  
Nesting

全自动电脑裁板锯 ..... 35  
Panel Saw

全自动直线封边机系列 ..39  
Edge Bander

数控打孔设备 ..... 53  
Drilling

### 橱柜门板生产解决方案 AUTOMATIC CABINET DOOR SOLUTION

门板专用加工中心 ..... 63  
EMZ Work Center for Door

高定专用加工中心 ..... 65  
PTP All-round Work Center

模压门板生产线 ..... 67  
Cabinet Door Production Cell

橱柜门板加工中心（三轴丝杆）... 68  
Precision Ball Screw Driven Machine

### 五轴联动加工生产解决方案 FIVE-AXIS MACHINE CENTER

定梁定柱中型五轴加工中心 ..... 69  
E9 Venture Five-Axis Machining Center

定梁定柱小型五轴加工中心 ..... 71  
E8 Mini Five-Axis Machining Center

桥式大型龙门五轴加工中心 ..... 70  
E10 Vantage Five-Axis Machining Center

### 实木生产解决方案 WORK CENTER AND CNC ROUTER

重型加工中心 ..... 75  
Heavy-Duty Work Center

标准型加工中心 ..... 76  
Venture Work Center

数控雕刻设备 ..... 77  
Manual Tool Changer Product

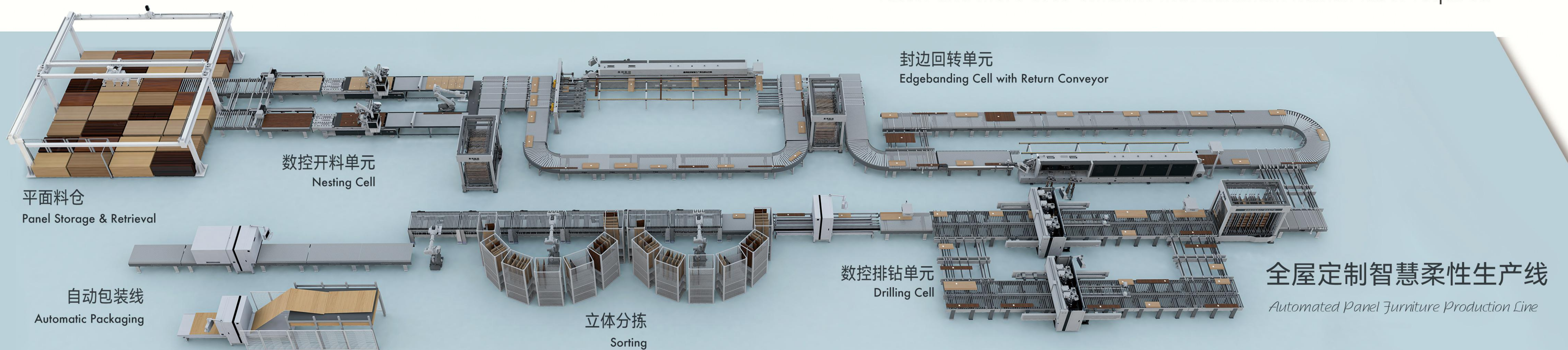
# 无人线，看星辉！

EXCITECH-Reliable, Affordable Total Solutions

专注于推动家具产业信息化、智慧化建设

We strive to make your production smarter,

faster and more cost-efficient with minimum human labor required



## 柔性生产线发展时间线

Milestones — Maintain the Lead by Continuous Efforts to Grow and Innovate



# 人员不变，产能翻倍，多班生产不停机

We Simplify and Optimize Your Manufacturing



- ◆ 2班倒不停机生产，轻松躺赢，增加节假日收入
- ◆ 5公分以上板件全自动上线，上线率高达90%+
- ◆ 减少不良品率和生产错误
- ◆ 减少在线人工，实现减员增效，降低管理成本
- ◆ 上线率高，揉单优化率提升
- ◆ 人效、平效双效结合，产能充分释放，效率翻倍
- ◆ 避免板材流转停滞，原材料到成品持续流转
- ◆ 彻底放手生产管理，专注扩充市场份额
- ◆ Multiple shifts,uninterrupted work cycles—mutiplied ROI.
- ◆ Parts≥5mm processed automatically.
- ◆ Greatly reduce defective products.
- ◆ Optimization rate dramatically increased.
- ◆ Doubled efficiency and output.
- ◆ Consistent work flow from raw materials to finished products.
- ◆ Production management is made easier.

**85%**

降低不良品率  
Reduced Defect Rate

**5cm**

最小板上线尺寸  
Small Parts

**90±1%**

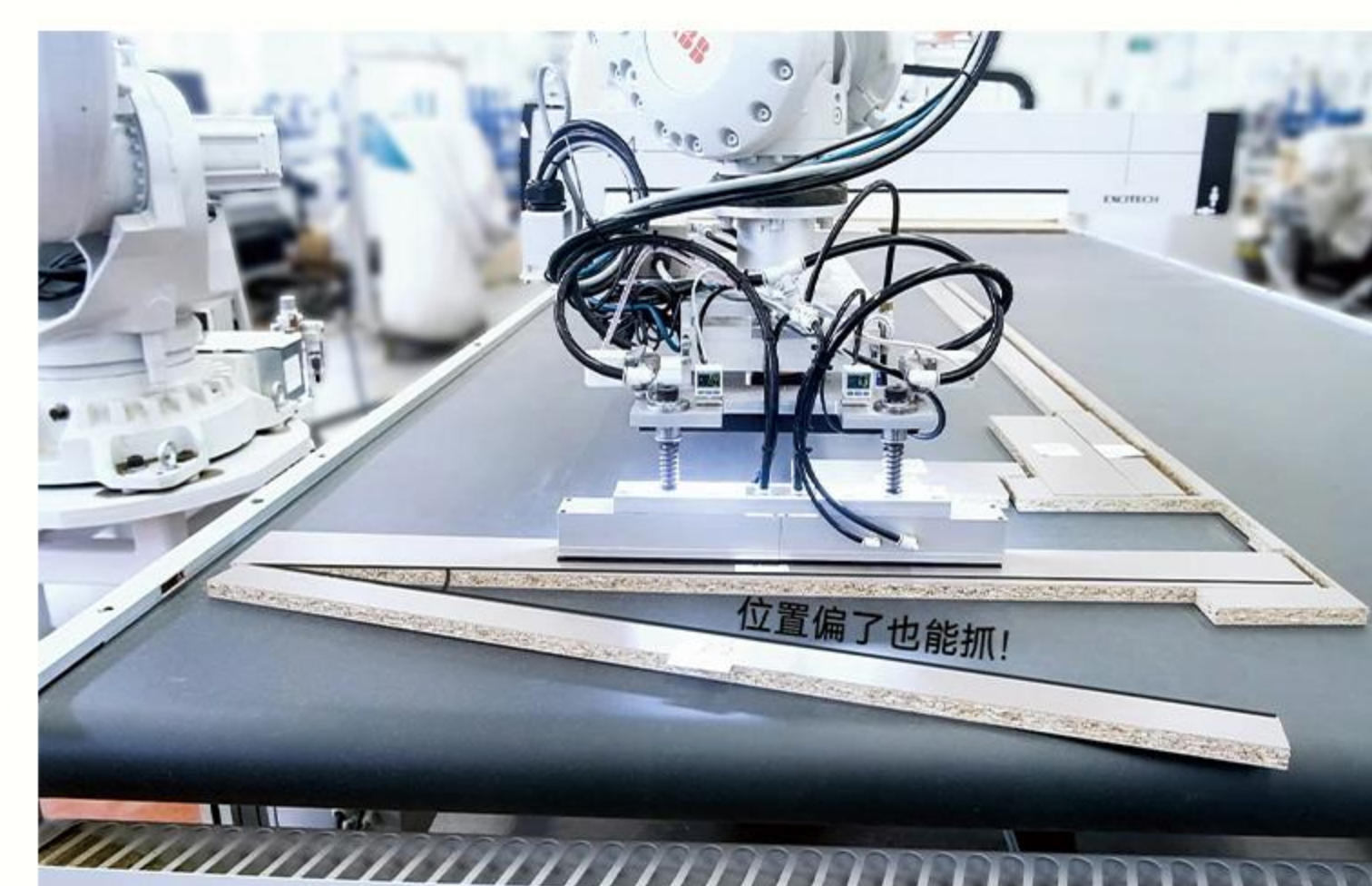
揉单优化率  
Optimization Rate

**90%+**

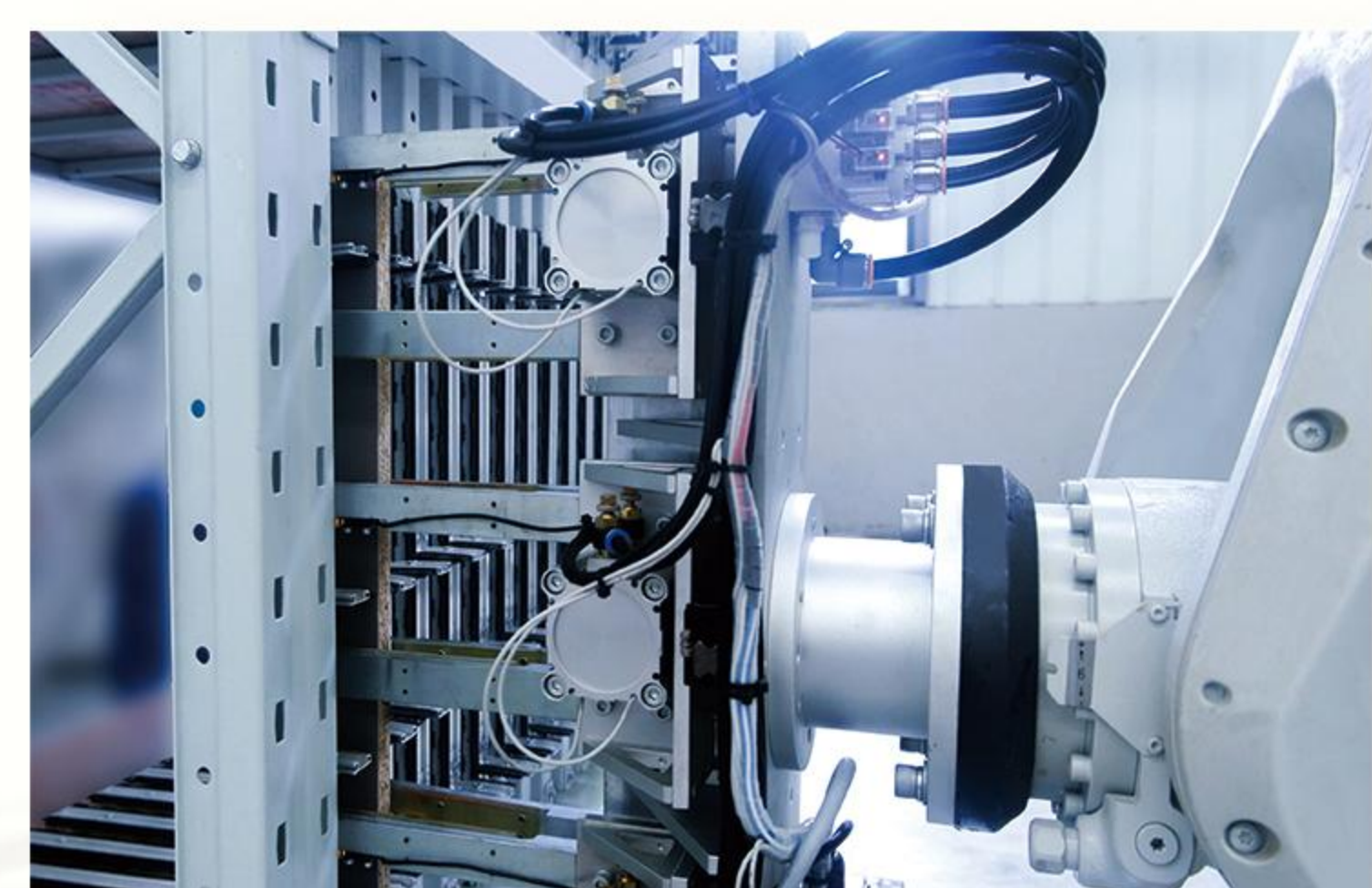
上线率  
Automotized



**星辉专利：** 5公分窄板全自动生产线，解决窄板自动化生产世界难题  
EXCITECH Patent  
Intelligent production line for small parts ≥5cm



**自研独有：** 视觉辅助定位系统  
Unique Advantage  
Vision-based robot unload navigation system



**自研独有：** 5公分窄板缓存定位  
Unique Advantage  
Accurate positioning & handling of small parts ≥5cm



书本架立体分拣单元  
Vertical Sorting Unit



更多智慧工厂资讯

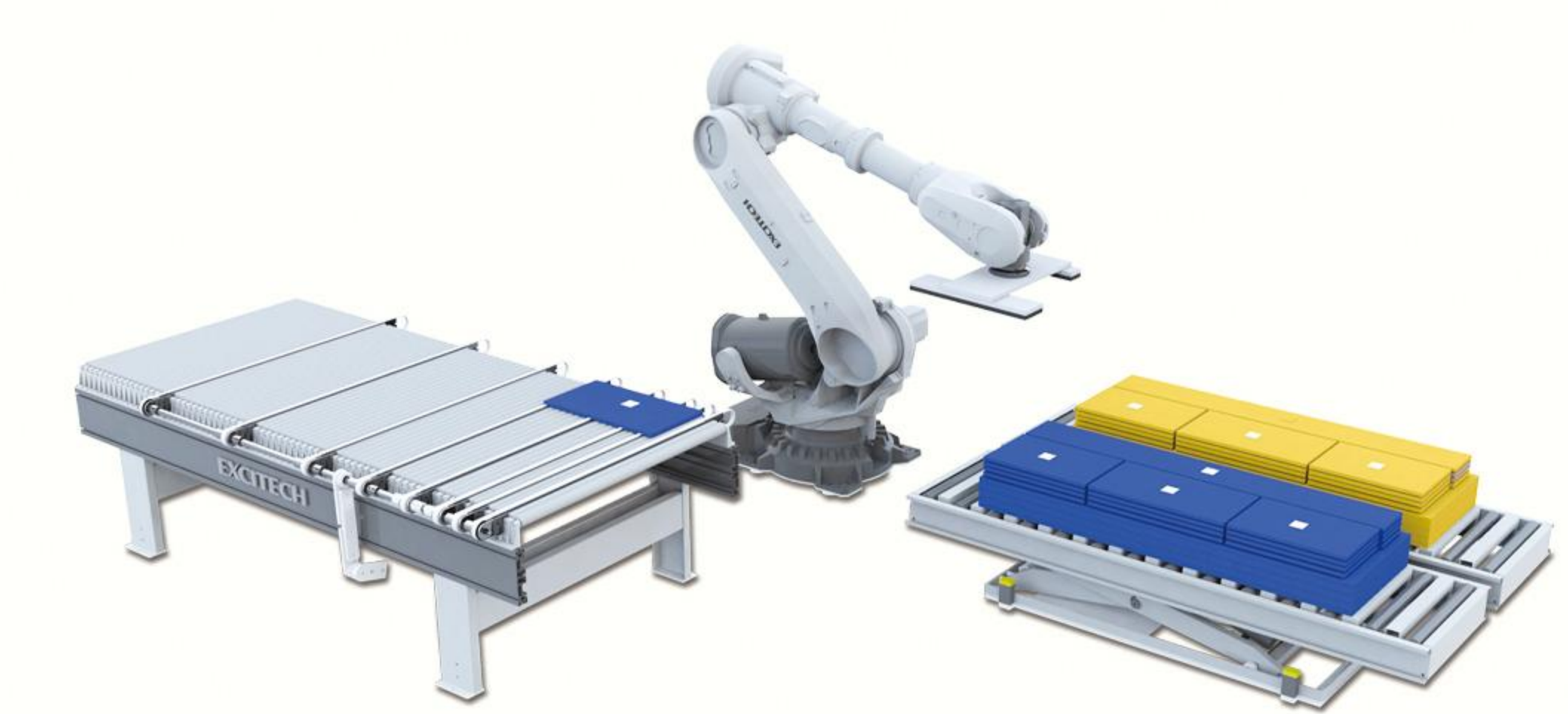
# 多年实践与经验 软硬件自主研发



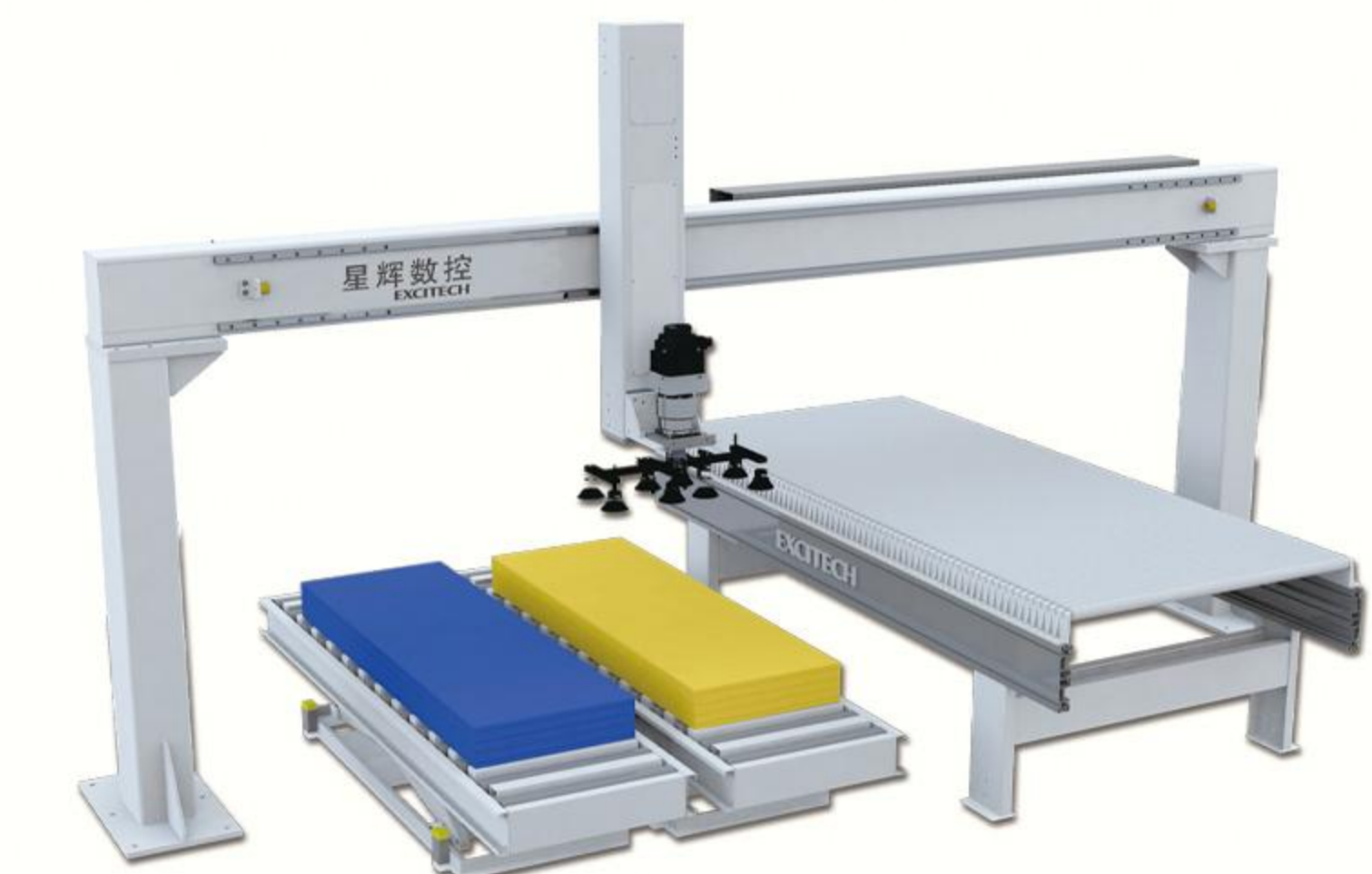
## 客制化方案 Production Planning 整厂智慧生产规划

根据工厂布局，结合工艺、产能等客制化需求，进行合理的工业4.0智慧工厂规划。  
有效提高管理和生产效益的同时，避免因软件、硬件产生的多头对接。  
Grow and prosper with our tailor-made production solutions.  
One stop service from project planning to fully automated production lines.  
Count on our expertise and experience!

机械手+视觉拆垛/码垛  
Robot with vision cameras



龙门机械手拆垛/码垛  
Gantry loading and stacking



## 多元化智慧生产模式

书本架立体分拣单元  
Vertical Sorting Unit



平面分拣单元  
Horizontal Sorting Unit



AGV/RGV搬运机器人  
Auto/Rail Guided Vehicle



立体仓库  
Vertical Storage



**上百套方案全球成熟落地，欢迎实地考察！**  
*Hundreds of projects have been implemented globally!*

**部分客户生产实景**  
 Customer Spotlights



**定制家具智慧生产全生命周期解决方案**  
 整厂规划、设计拆单软件、MES生产管理软件、自动化设备...



原材料仓储、RGV转运供料、开料、封边、钻孔、清洁、质检、  
 齐套、分拣、码垛、包装等全流程自动化解决方案





# 我们的优势 星辉数控软硬件一体化解决方案

ADVANTAGES Integrated Total Solutions--Softwares, Controls and Machines

## 生产指挥系统 Production Management

通过SCADA数字采集、视频监控，以工业大屏、电子看板等可视化的方式，将生产现场、生产数据、订单状态等数据实时呈现在管理和生产巡检人员的眼前。

Real time monitoring is made possible by integrating SCADA data collection and camera system. All kinds of data including order status, production plan and progress are presentable through live feedbacks via industrial monitor screen, tablets or mobile device.

## 多终端可视化生产数据管理

- ◆ 实时监控生产数据，提高设备利用率和车间生产能力  
Real time machine production and process monitoring
- ◆ 提高现场异常情况的响应和处理能力  
Reports any interruption immediately
- ◆ 缩短计划编制周期以及人力成本  
Embedded advanced planning and scheduling
- ◆ 提高生产计划准确性，精细化管理  
Facilitates lean management
- ◆ 提高生产统计的准确性和及时性  
Connected systems help businesses grow with more effectiveness and competitiveness

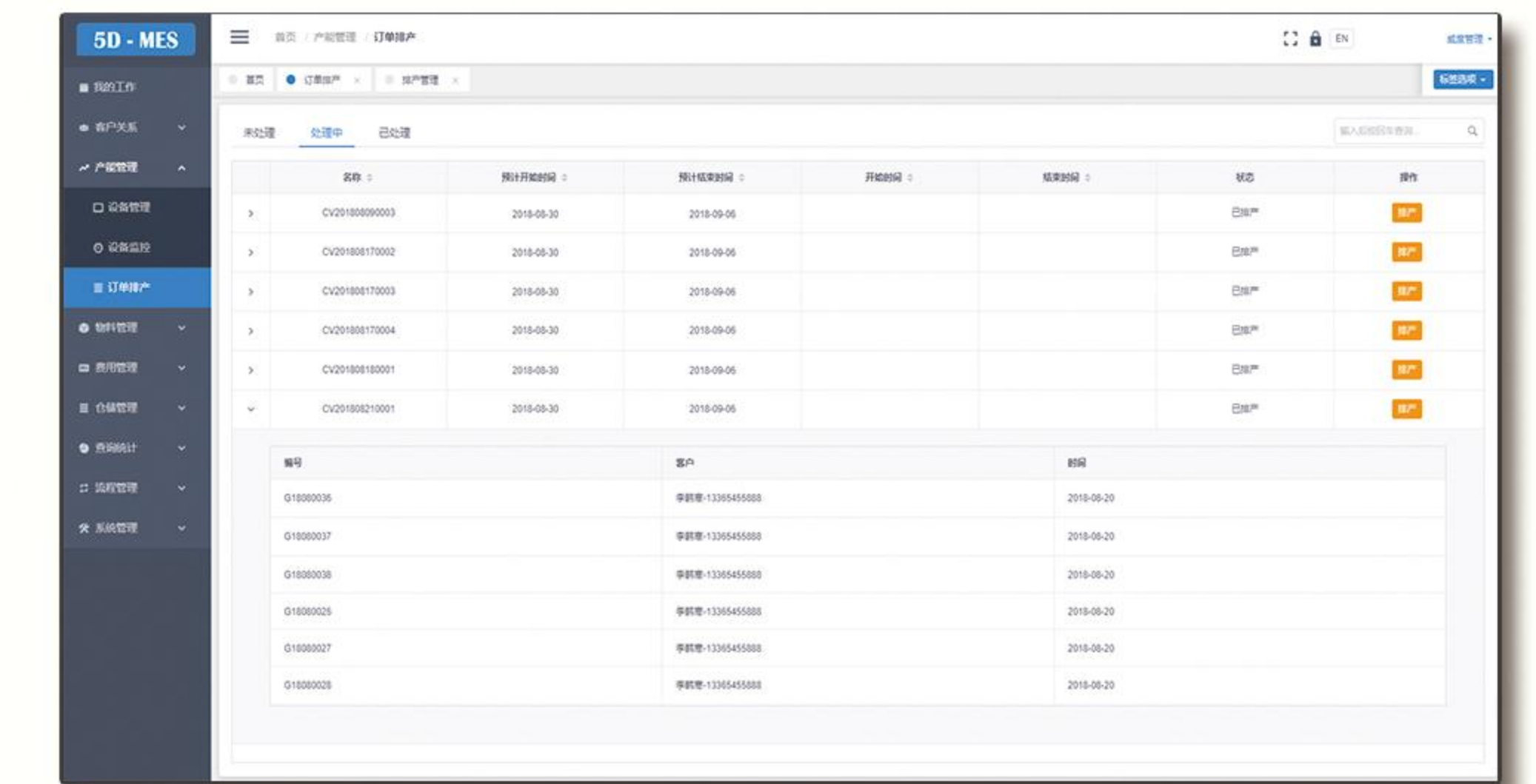


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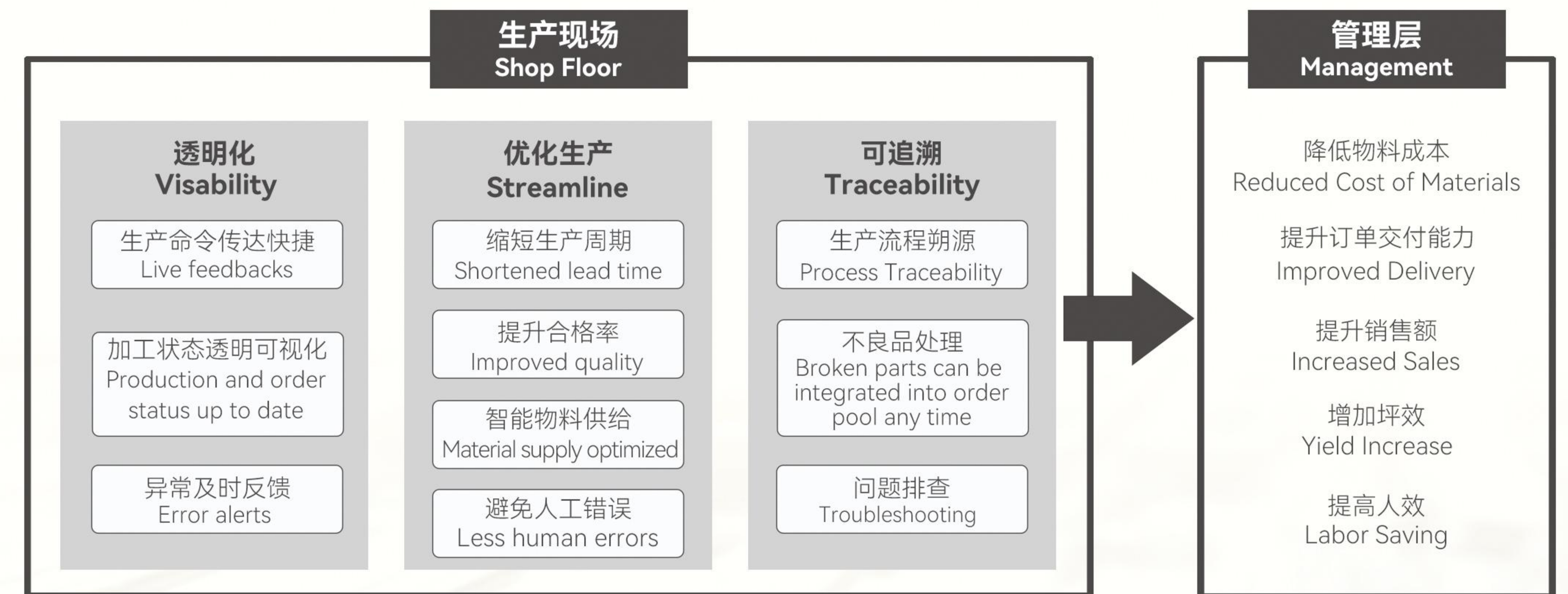
## 智慧排产系统 Production Planning

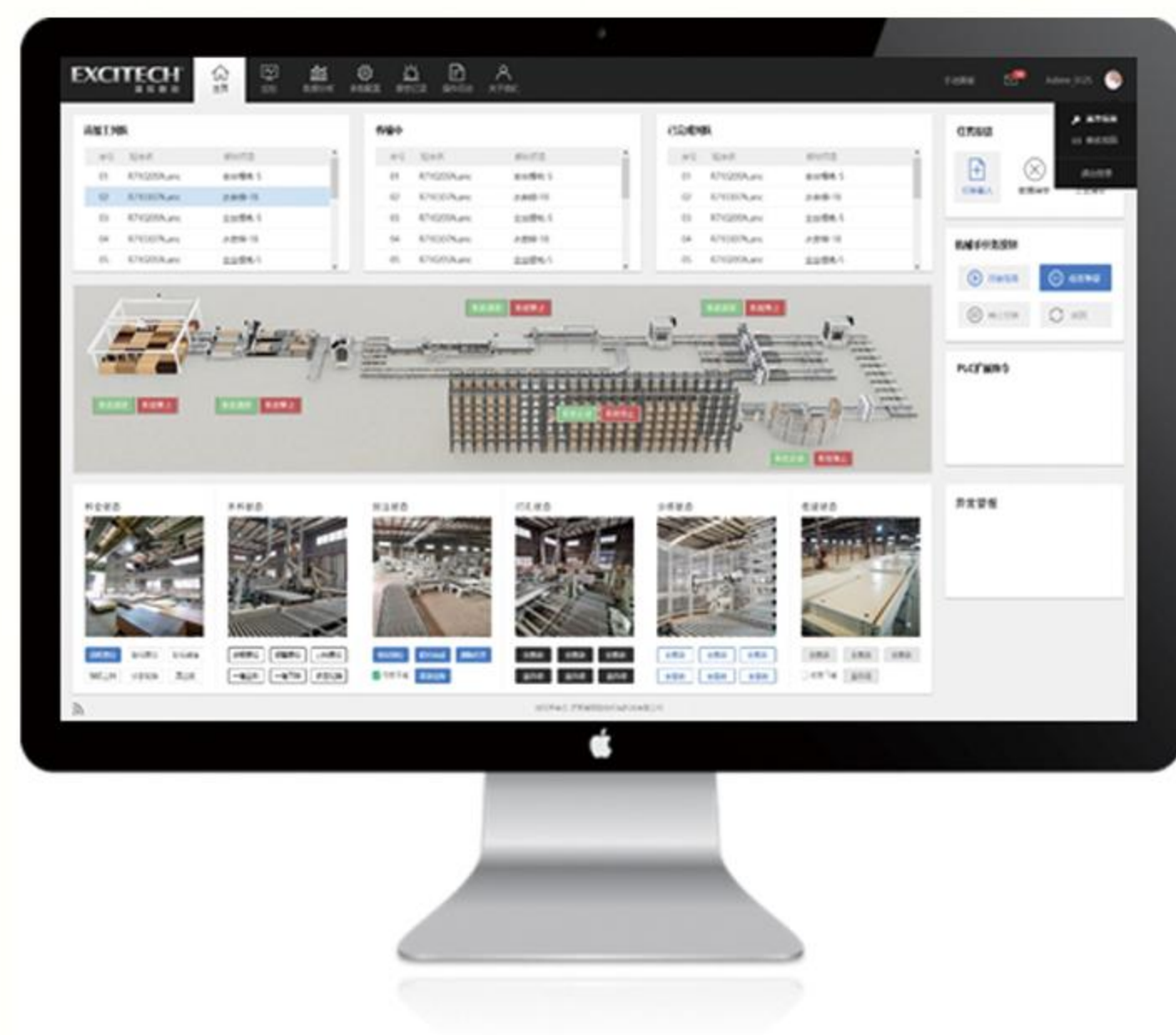
多订单根据交期智能优化排产，提高板材利用率，缩短交期，提高客户满意度和返单率

- ◆ 科学规划生产计划  
Accurate planning
- ◆ 机器获取生产任务，执行加工优化  
Optimized machine assignment and production
- ◆ 智能排产：科学管控生产  
Intelligent registration and arrangement in sequence
- ◆ 设备产能监控  
Machine capacity monitoring
- ◆ 与生产管理系统交互同步  
Synchronization with production management system
- ◆ 补板信息统计，实现快速补板  
Broken parts and rework can also be integrated into planning



信息化工业大屏 Real Time Monitoring





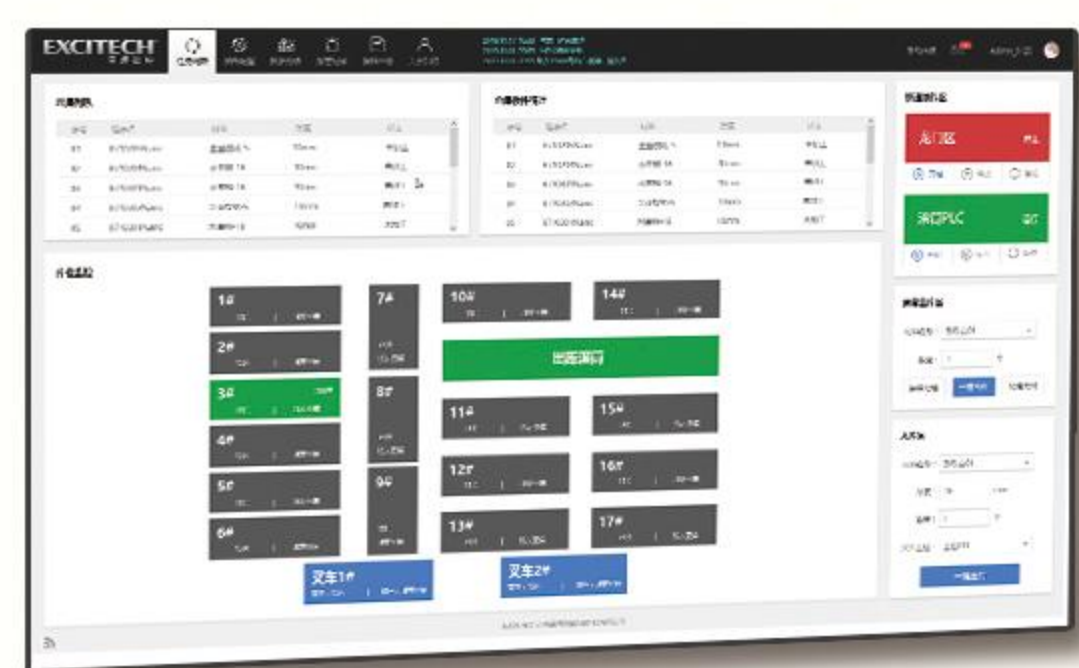
### 中央控制系统 Central Control

及时、准确进行生产数据统计分析，规范企业管理  
 Real time and accurate data collection and report propel lean management.  
 移动端实时监控生产状态  
 Accessibility from mobile device makes management as mobile as you are.

星辉数控生产控制系统，将生产线上设备状态、订单状态、生产数据、工作状态、生产计划、完成情况等数据采集，形成基于车间生产现场的实时状态信息，指挥人员可发送控制指令，实现对设备、物料等资源的监控与调度，是智能化协同交互决策的新型管理模式。

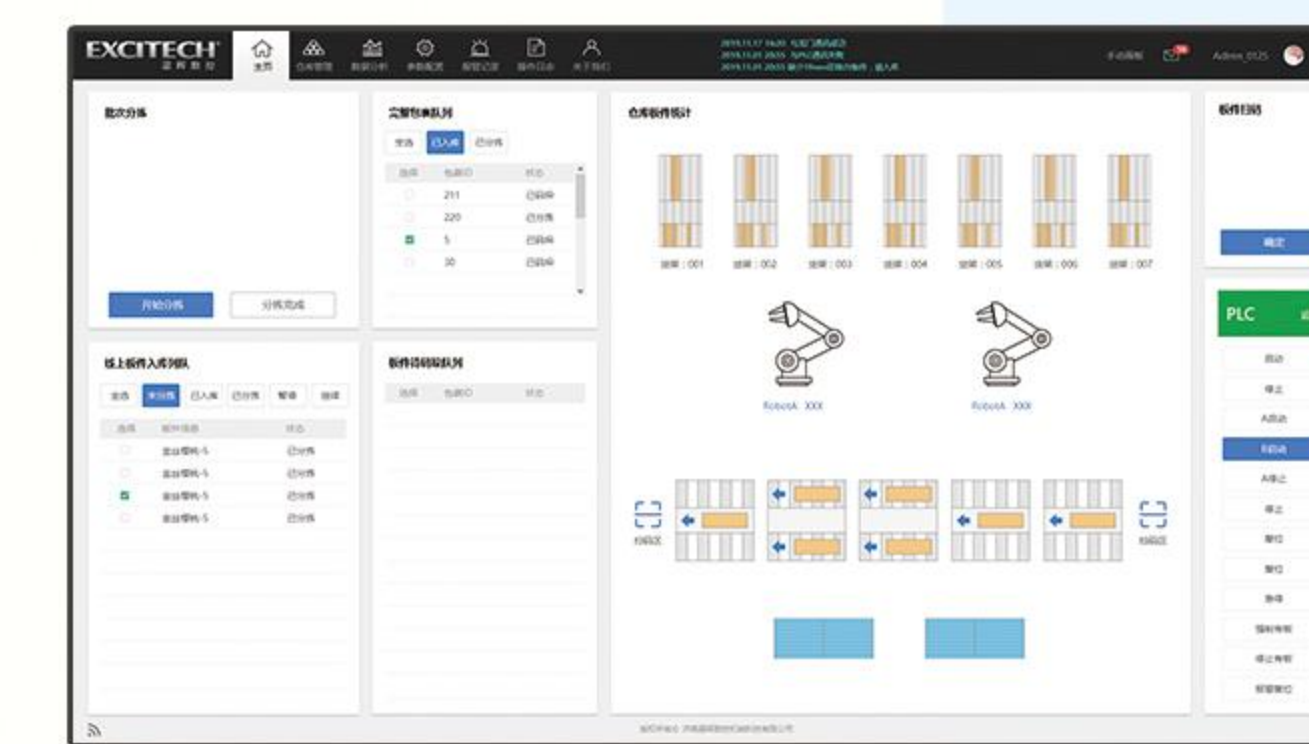
Excitech Manufacturing Execution System is an integrated solution that monitors, reports, and communicates all manufacturing related information including machinery status, order status, production data, capacity, production planning and scheduling, and more. All information is accessible to relevant parties so they can make informed decisions, manage performance on different levels, and reach new and industry-leading levels of management.

### 智能料仓系统 Panel Storage and Retrieval System



将原材料端与设备端无缝衔接，可视化管理  
 根据订单信息，配板码垛与板件入仓随时切换，满足生产节拍  
 料仓大小可根据产线产能及场地定制  
 Rational utilization of shop floor that combines material storage, manufacturing equipment and logistics functionalities.  
 Planning ahead of production, stack and stock all in one.

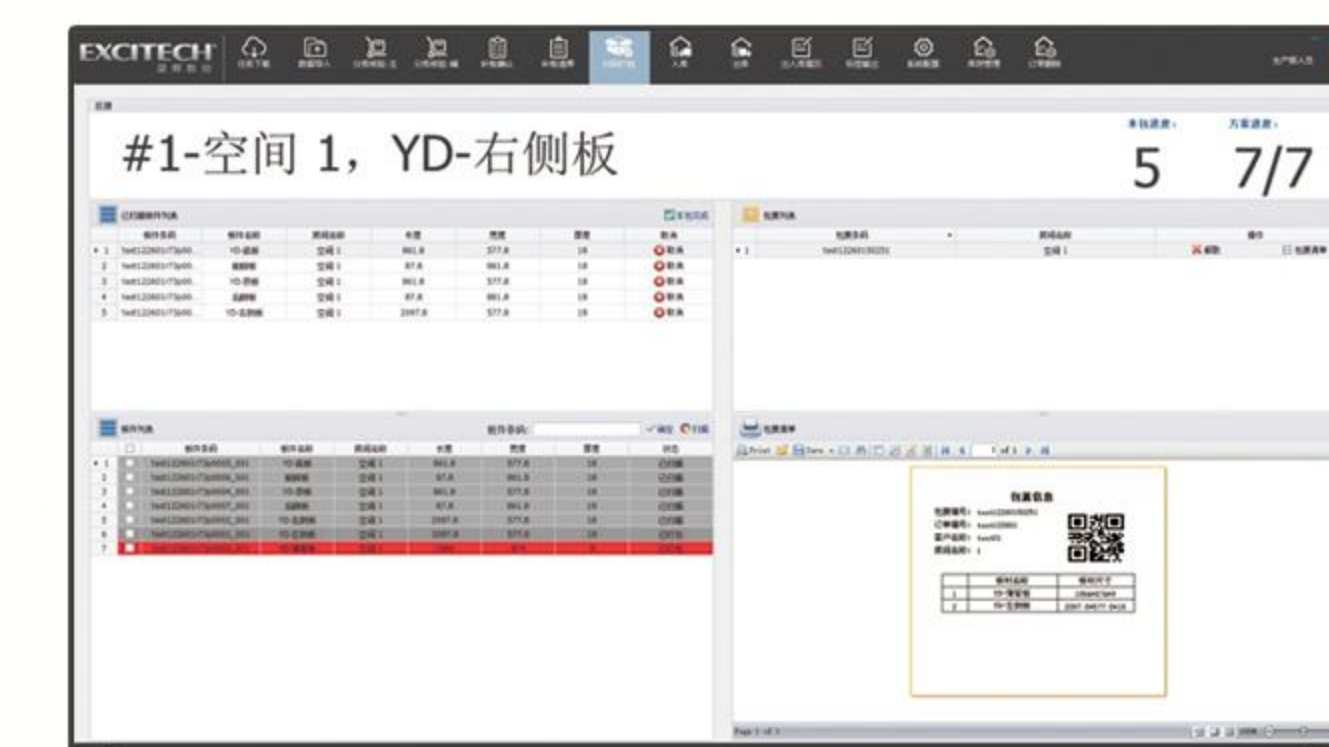
### 分拣控制系统 Sorting Control System



作业效率高，减少对作业人员的要求  
 适合多品种、高频率、柔性生产现场  
 对终端客户实现当天配送的物流现场

Highly flexible solution for temporary storage, sorting, sequencing and batching that greatly improves turnover.  
 Available in both vertical and horizontal styles to accommodate various dimensions.  
 Robots pick-up and transportation is not only efficient but also error-free.

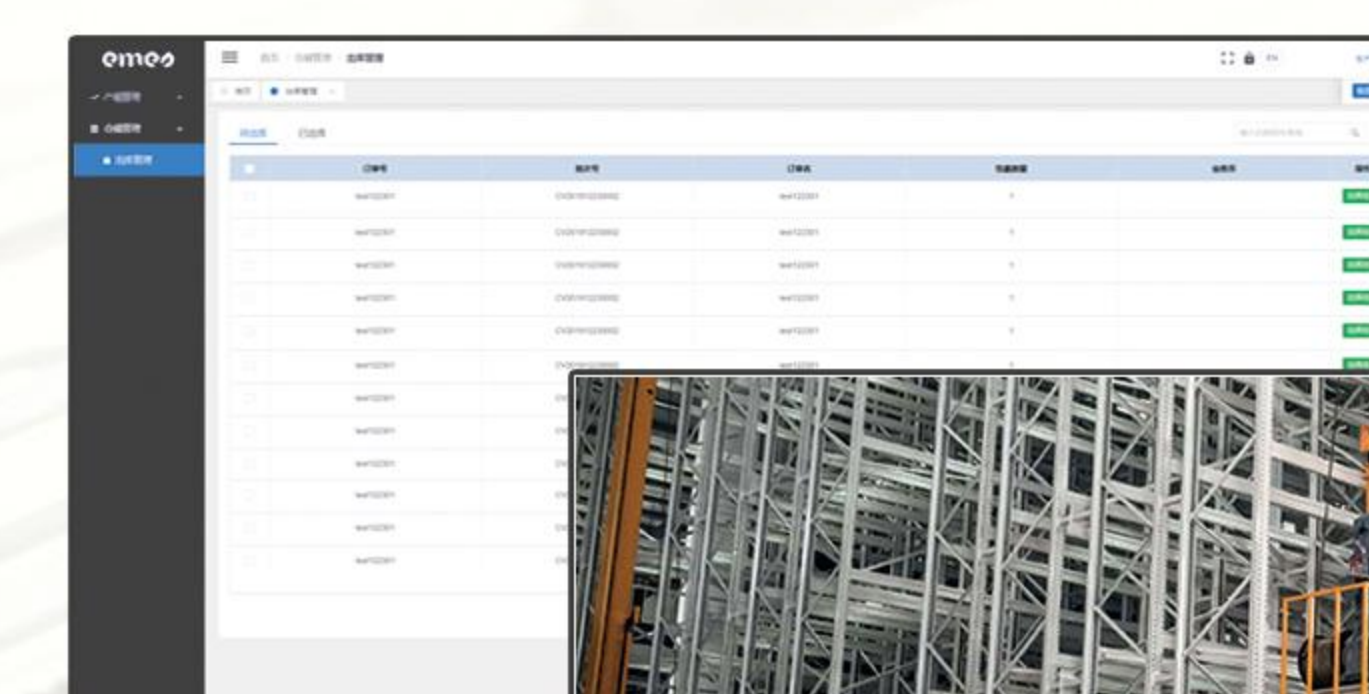
### 自动打包控制系统 Packaging Control System



- ◆ 获取打包任务和分拣状态
- ◆ 支持多种打包规则
- ◆ 根据板件、五金等进行分拣打包后入库
- ◆ System dispatches packaging tasks and sorting status to specific operators or work stations.
- ◆ Supports various packaging algorithm.
- ◆ Generates streamlined packaging solutions.
- ◆ Orchestrates single piece, batch, and complex workflows.
- ◆ Communicates with Excitech MES
- ◆ ...

Planning and sorting according to parts, and hardware before packaging.

### 成品仓储系统 Warehouse Control System



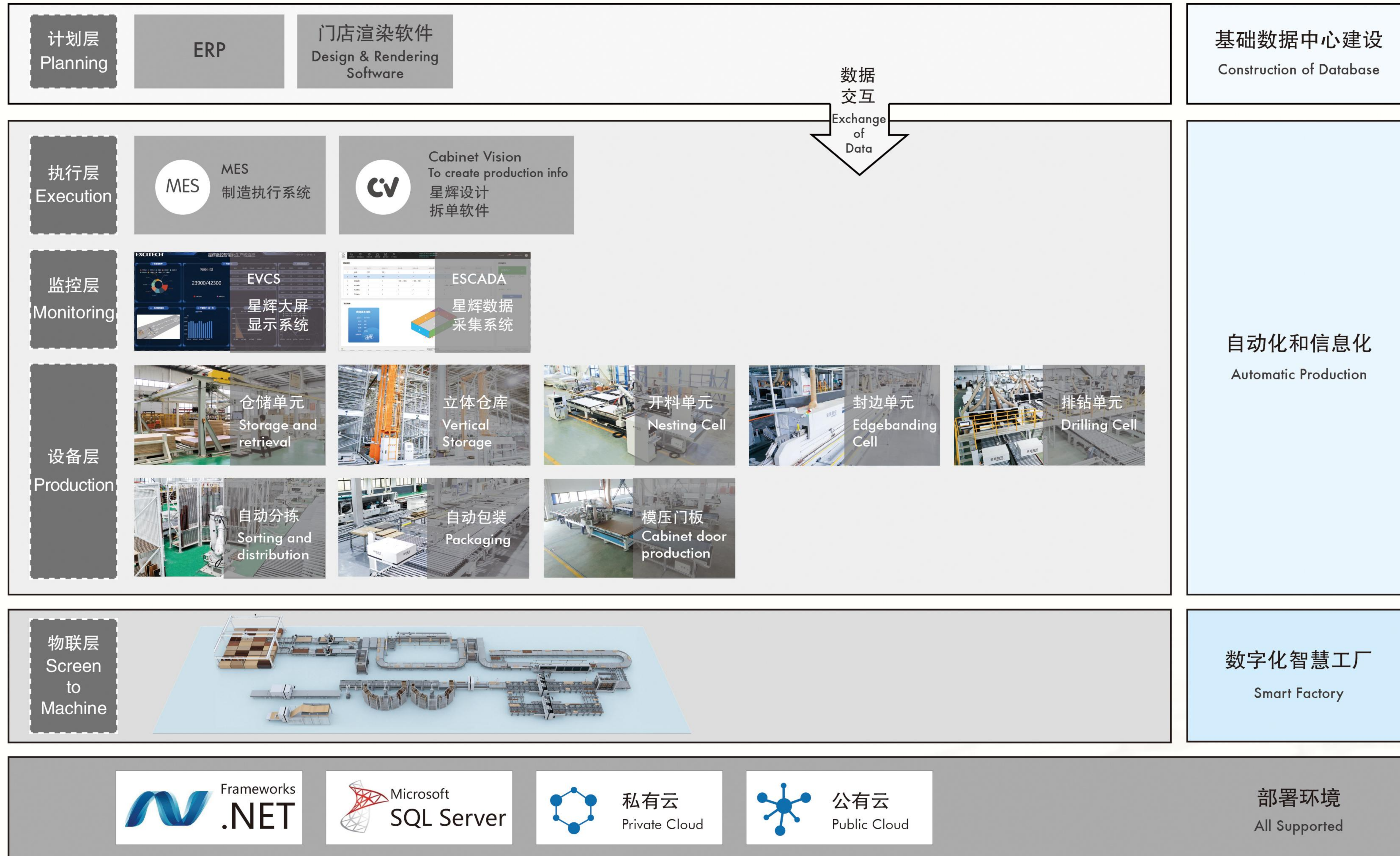
- ◆ 实现仓储作业精益化
- ◆ 出入库操作简单快速且准确
- ◆ 库存明细实时更新
- ◆ Ease of operation
- ◆ Real time update of stock status and reports
- ◆ Shipping and receiving management

# 星辉数控智能工厂信息化体系建设

互联、智能，构建企业智慧大脑

## Smart Factory Software Implementation

Total transformation towards intelligent & inter-connected production



- 优化企业生产制造管理模式，实现精细化管理
- 可视化动态监控生产过程，合理安排生产流程
- 实时数据分析，及时调整生产策略
- 统一推进订单状态，保证按时完成交期
- 加工履历实时记录，生产问题溯源，提高生产效率
- Our softwares give your business a brain so it can produce and profit in a smart, efficient and cost-effective way
- Design to production in a few mouse clicks
- Softwares and machines are perfectly integrated. The whole production processes are transparent and easily accessible



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了解更多详情

# 定制家具设计拆单软件 Design Software

星辉前端软件体系建设集ERP对接、门店渲染、各类设计拆单软件对接功能于一体，专为橱/衣柜企业打造，可以适应任何规模的企业从设计、渲染展示到生产，从门店到工厂，从前端到后端的各种需求。

Excitech Design Software is dedicated to the cabinet/wardrobe builders as well as retailers.

Emerging manufacturers, mid-sized companies as well as large multinationals are all able to find solutions that support the integration with ERP, generate great rendering effects, and synchronizing with production softwares.

- ◆ 优化企业生产制造管理模式，实现精细化管理
- ◆ 提高协同办公工作效率、降低生产成本
- ◆ 及时、准确进行生产数据统计分析，规范企业管理
- ◆ 移动端实时监控生产状态，高效管理

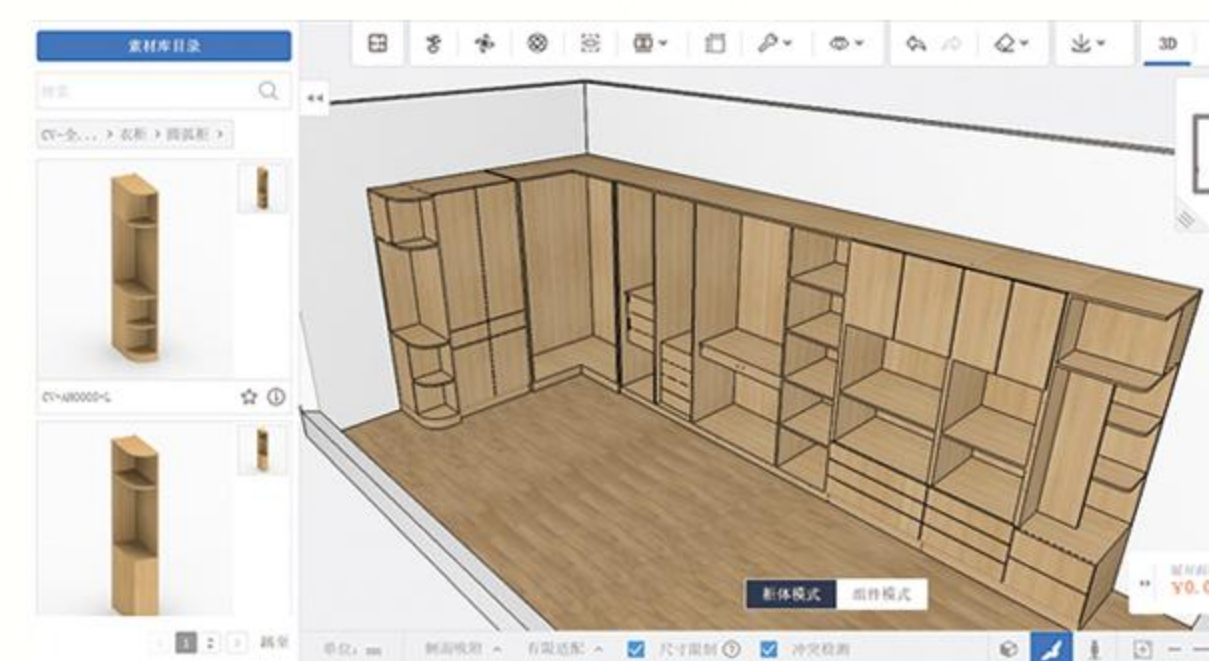
- ◆ Supports lean initiatives.
- ◆ Boosts collaboration and efficiency, ultimately enhances profitability.
- ◆ Real time production and process monitoring and analyzing.
- ◆ Access to system data through portable devices.

## 前端设计软件

精确设计，照片级渲染

### STEP1 门店设计渲染 Design&Rendering

在前端网页作出所要生产的柜体  
Web-based and easy to use



支持对常规柜体及异形柜体的还原，支持断面编辑功能，可对还原的柜体进行二次编辑

Compatibility with other design software—general and special boxes can both be translated directly to Excitech design without rework.



3D渲染功能，可实现照片级渲染，方便进行实景效果展示

Powerful 3D rendering engine creating photo-like effects.

### STEP2 数据解析 Data Analytics

可对接市面常见多种设计软件  
可同时转入客户订单信息

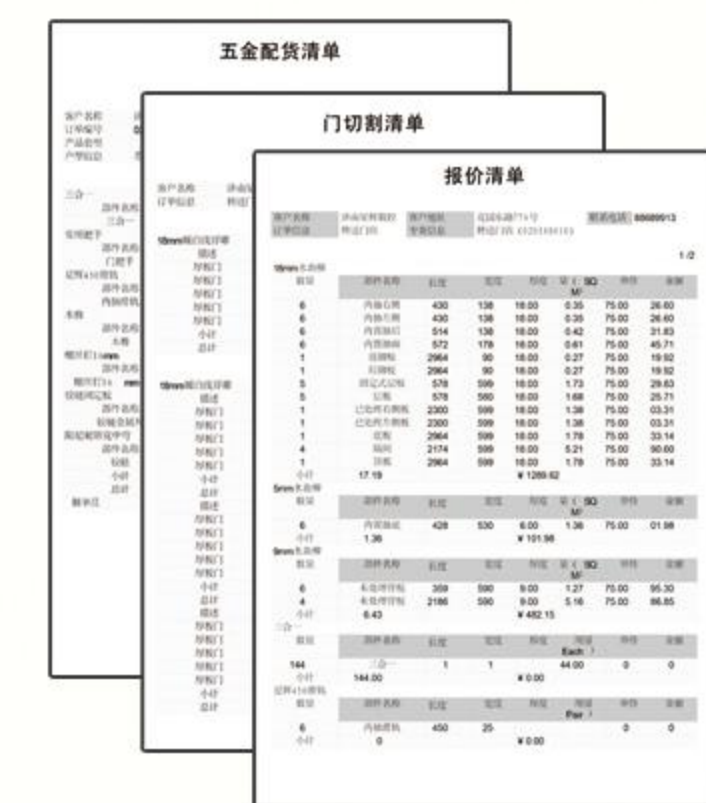
Link and integration with different design software without generating double references.

Synchronization of order information .



支持五金和连接件加工还原

Production processes involving use of hardware and connectors are factored in

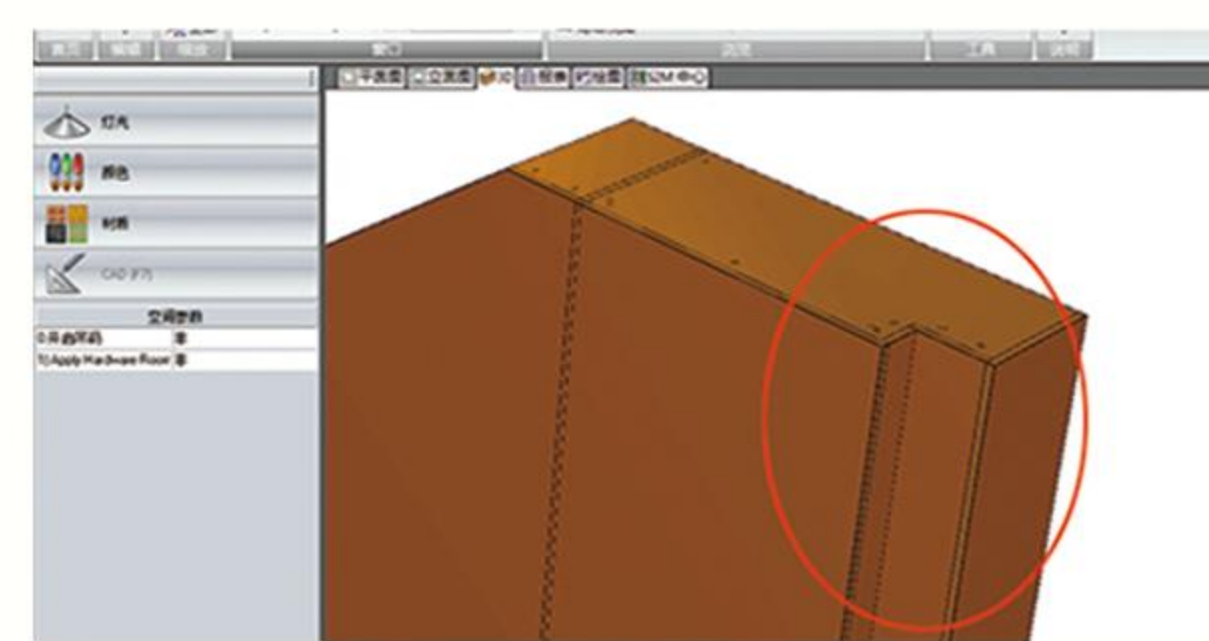


切割清单、物料清单、五金件清单、人工成本、材料成本、装配示意图、尺寸规格全部一次性生成

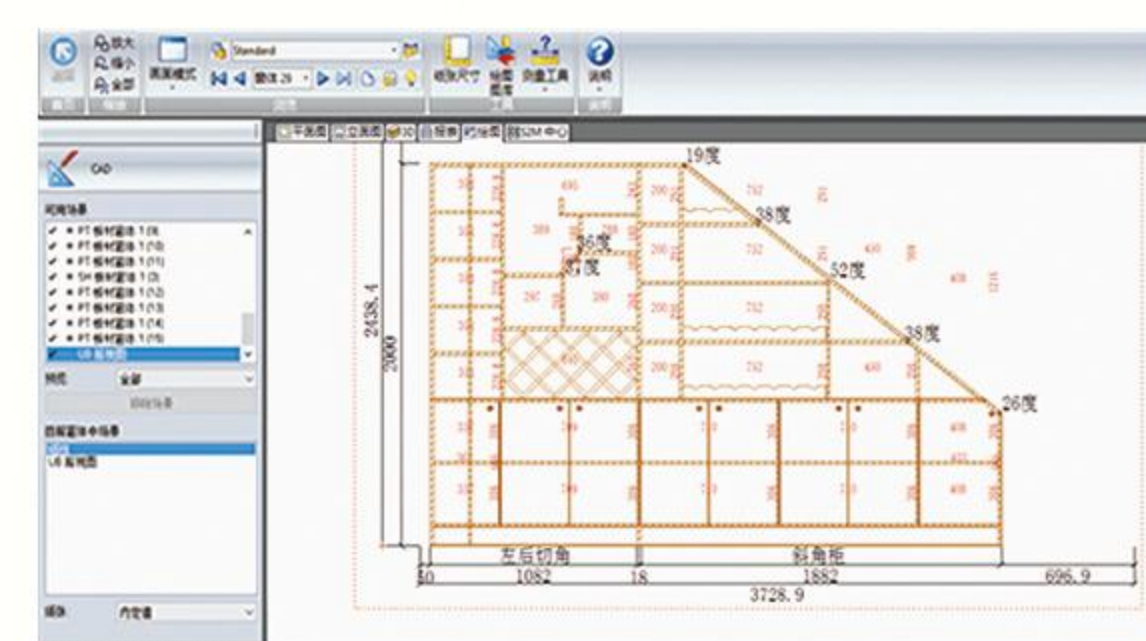
Cut list, BOM, bill of hardware, labor cost, cost of materials, assembly schematics and dimensions all generated by one simple mouse click

### STEP3 拆单生产 Production Simulation

批量优化合单，同步实现自动精确拆单，无需人工介入



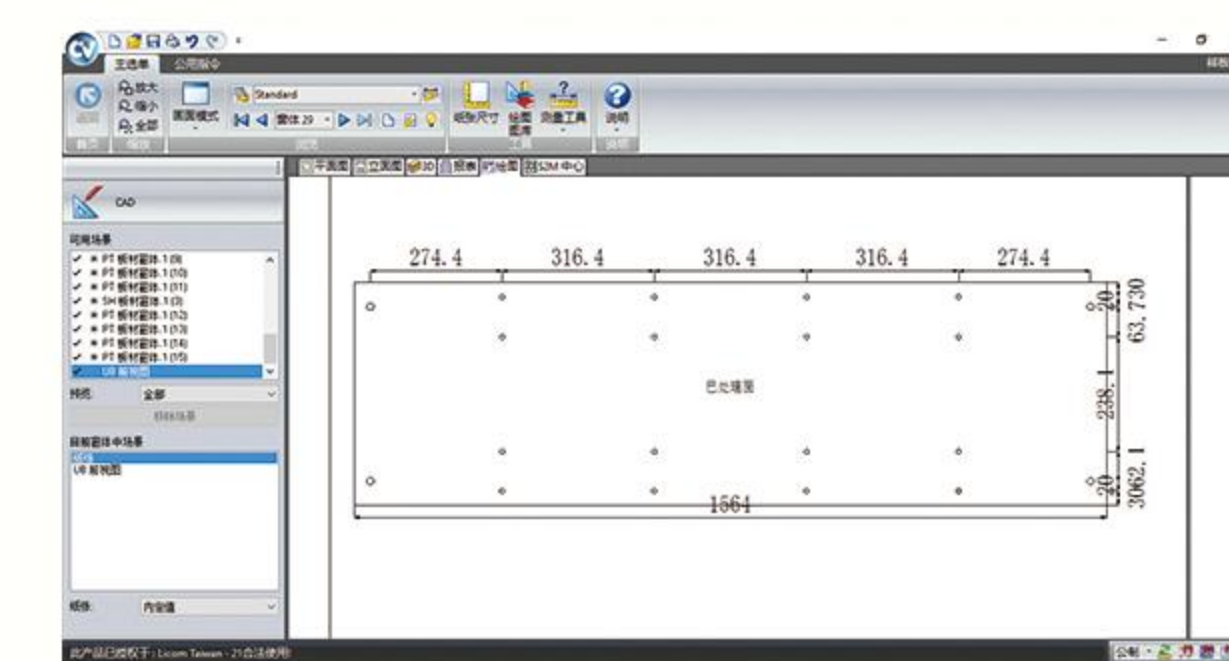
对接庞大的前端设计软件模板库  
Vast library



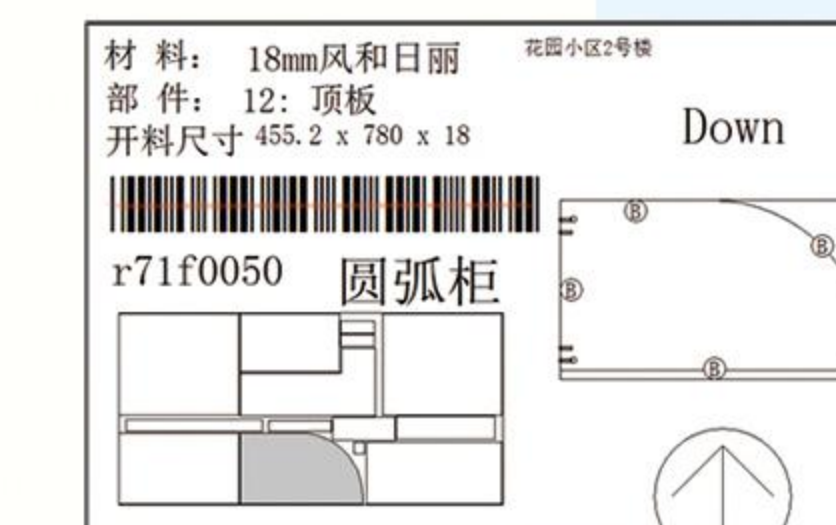
自动生成装配示意图，一目了然  
Automatically generated assembly schematics

## 快速准确拆单 BOM Calculation

- ◆ 批量优化合单，同步实现自动精确拆单，无需人工介入
- ◆ 生成CNC及生产线可以识别的生产数据
- ◆ 在合单过程中，优先使用余料



生成CNC识别的加工代码  
Automatically generates barcode

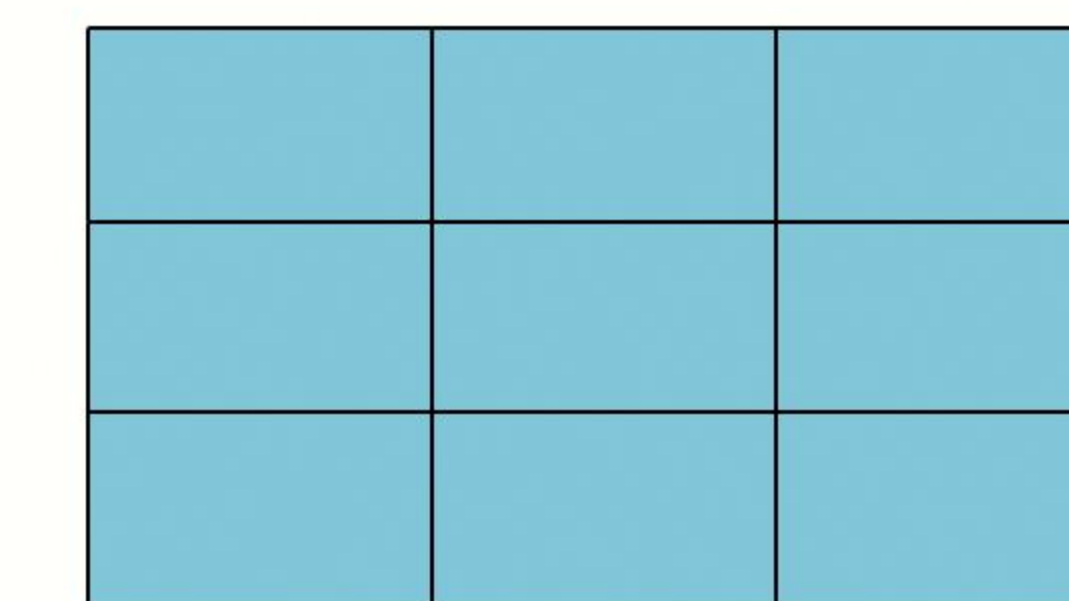


生成CNC识别的加工代码及标签，生产时可直接扫描条码，无需输入加工代码  
Scan the barcode and set this machine in motion

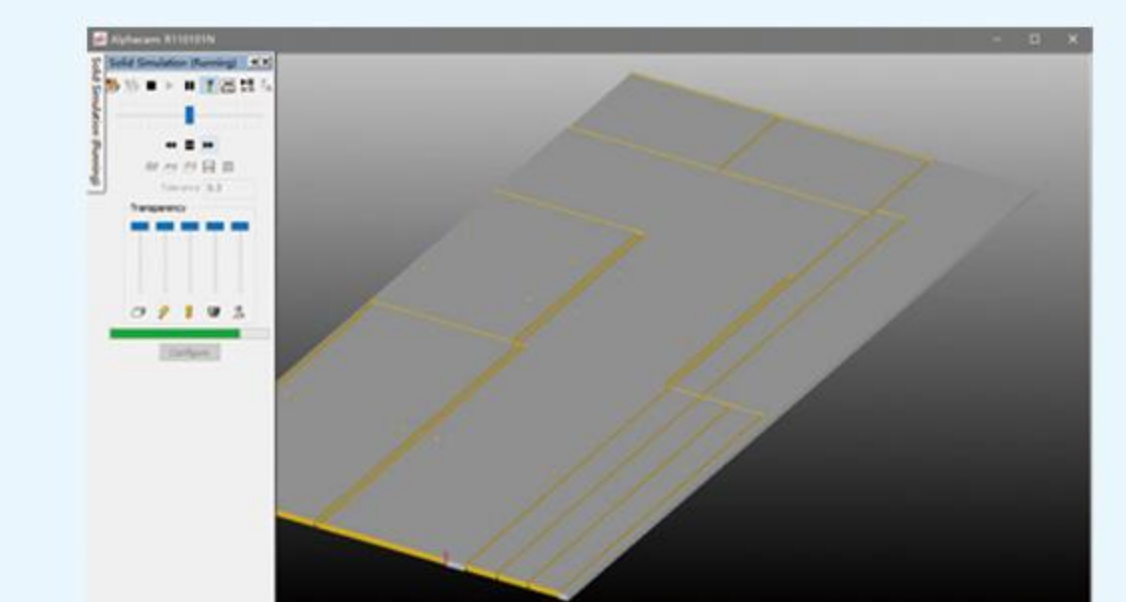
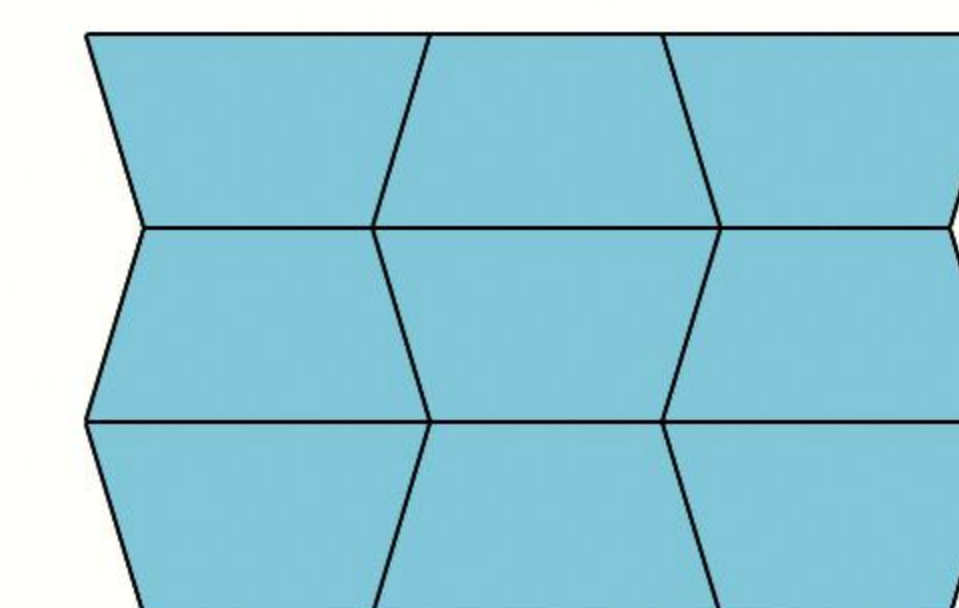
## 自动优化排版 Cutting Plan Optimization

- ◆ 余料管理：实现余料的一键自动回收与利用  
Reduces offcuts and increases offcut usage.
- ◆ 根据加工设备自动采用矩阵/真实形状排版，提高加工效率，节省原材料损耗  
Freedom to choose from different optimization pattern.

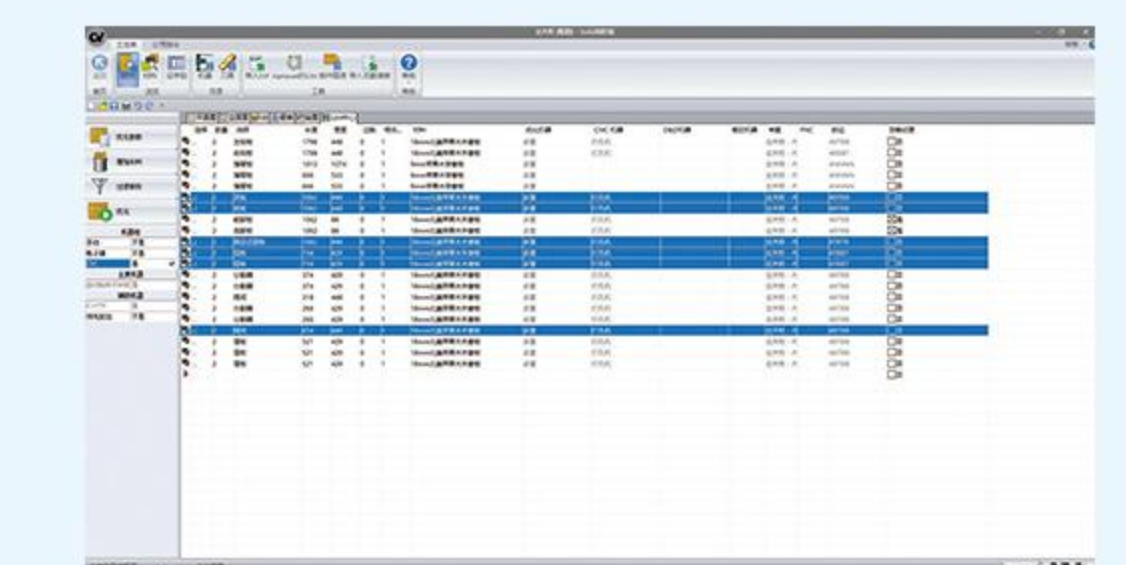
矩形排版，提高加工效率，节省原材料损耗  
Rectangular Optimization



真实形状排版，异形部分自动互补融合  
True Shape Optimization



更直观的加工模拟  
Processing simulation



板件自动分线加工，可自动区分板材分属的加工设备，异形/矩形分线排版输出，方便规划生产，提高设备效率及产能  
Production planning according to job composition —automatically assigns jobs to machines



视频演示  
星辉数控前后端一体化体系