

# Terms of Reference (TOR)

## For

### Purchasing Management Platform

### 采购管理平台

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## 1. Executive Summary 执行概要

Guangxi Nanning East Asia Sugar Group has planned to implement a business digital transformation project aimed at leverage business operations. The project will use an innovative technology to build the capacity of operations. The system will provide a platform to easily digitize data leading to business standardize within East Asia Sugar Group. 广西南宁东亚糖业集团计划实施业务数字化转型项目以优化业务操作，采用创新技术实现业务能力的提升。该系统将为数据的数字化提供平台，促进集团内部业务操作的统一和标准化。

## 2. Background 背景

Guangxi Nanning East Asia Sugar Group (hereinafter referred to as EAS) is invested by Mitr Phol Group of Thailand since its entering Chongzuo city of Guangxi in 1993. Now East Asia Sugar Group has 10 companies: 6 sugar mills with the cane milling capacity of 92,000 tons/day and sugar output of approximately 1 million tons per year, which crushed 8.74 million tons of cane and produced 1,040,000 tons of sugar in total in crop 2017/18, ranking the third place in China and the first place in Guangxi; 3 biomass electric power plants with the generating capacity of 390 million kwh per year; and 1 BB fertilizer plant with the capacity of 100,000 tons per year. The above 10 companies are accounted independently. At present, more than 3,500 employees work with and; over 350,000 cane growers build good relationship with the Group. The Group can realize sales revenue of approximately RMB8 billion yuan and tax payment of about RMB500 million yuan per year. 广西南宁东亚糖业集团（以下简称东亚糖业），由泰国两仪集团于 1993 年进入广西崇左市成立，现有 10 家公司：6 家糖厂，日处理甘蔗能力 9.2 万吨/天，年产糖量 100 万吨左右。2017/18 年榨季集团甘蔗压榨量 874 万吨，产糖量 104 万吨，居全国第三、广西第一；3 家 30MW 生物质能源发电厂，年发电能力约 3.9 亿度；1 家掺混肥料厂，年产肥料 10 万吨。集团 10 家公司独立核算。集团现有员工 3500 多人，与集团有密切联系的蔗农超过 35 万人。年销售额约 80 亿元，年度纳税总额 5 亿元左右。

Currently, business operation is mainly operated in both manually and also in the ERP SAP system. As a model, East Asia Sugar co., Ltd. would like to leverage the business process in area of PPP (Plants, Purchase, Pay) with process digitally and able to get advantage from digital theme. We are using SAP EHP8 ERP system and Weaver OA system. 鉴于目前各项业务仍以人工手动和 ERP SAP 系统操作为主，集团拟在工厂、采购、财务付款（PPP）三个业务系统先行实施数字化业务流程优化，并从中总结出业务流程数字化的优势，以此作为范例。我们正在使用的是 SAP EHP8 ERP 系统和泛微 OA 系统。

The proposed digital platform will mostly be utilized at first or second level operations in EAS. The development of technologies supporting this project, require tools and components that are user friendly, easy to sustain and possibly be replicated in various other facilities and settings in the future. The developer should interpret and prescribe suitable solutions, considering current industry standards, ease of use and maintenance, as well as sustained future outlook. 上述数字化平台将主要用于集团的一、二级业务。基于项目的技术研发要求相关工具和组件应以方便用户为主要考量，且易于将来维护和和其它设备、设置中进行复制。在制定相应方案时，开发人员应将现行行业标准、系统操作和维护是否简便纳入考虑，并具有一定的前瞻性。

## 3. Objective of the project 项目目的

- To create a platform that will assist EAS to address the challenge of digital business transformation through improve operation and data management at the required level. 通过平台的创建，优化操作和管理数据，帮助东亚糖业应对数字业务转型的挑战。

- Digitalize data with the aid of a coding system that is aligned to business requirements. 借助基于业务需求的编码系统对数据进行数字化处理。
- Alignment of system to digital tools such as mobile, QR code, workflow etc. through innovative mechanisms. 通过创新机制，使系统与手机、二维码、工作流等数字工具保持一致。

#### **4. Scope of work and key deliverables 工作范围和关键交付成果**

This assignment is to design, develop and deploy a customized programs. The detailed scopes of work are specified in Annexure I. 项目主要任务是定制程序的设计、开发和实施。具体工作范围详见附件一。

#### **5. Implementation Methodology and Deliverables 实施方案和交付成果**

The details explanation of methodology that is instructional steps or guidelines to manage the project to ensure project are working well and also completed on time. The method is use to achieve the objective of the project that will accomplish a perfect result. And also define the key check point with key deliverables to evaluate the status of the project. 实施方案是项目实施的指导方针，用于项目管理，以确保项目的顺利开展和按时完成。该方案对如何达成项目目标和理想效果、如何确定关键检查点和关键可交付成果以评估项目进度予以指导。

Project meeting and minute of meeting need to be defined regularly. 定期召开项目会议并形成会议纪要。

#### **6. Project Organization Structure with Role and Responsibility 项目组织结构（角色和职责）**

Project organization need to be described to ensure that there are enough team members and provide a team of experts with the approved skill sets who shall be adequately qualified and experienced in both development projects and IT related field to satisfactorily and timely deliver the expected outputs. 项目组织架构的制定是为了确保有足够的团队成员，并配备一个在项目开发和 IT 相关领域都具备足够资质和经验的专家团队，以圆满和及时地交付预期成果。

Profile of team members with their roles and responsibilities are also described in details. 同时详细描述了团队成员及其角色和职责。

#### **7. Project Timing 项目时间**

The project time frame need to be defined with list of deliverables as per explain in the detailed project methodology and deliverables. 根据项目实施方案和交付成果中列出的交付成果清单制定项目时间表。

#### **8. Ownership and Copyright 所有权和版权**

The developer is required to hand over the final product by 31.12.2019. 开发者必须在 2019 年 12 月 31 日前交付最终产品。

The final product is developed and customized for EAS. All source codes and technical documents shall be accessible by customers, convenient for maintenance, and the copyright rights shall be shared by both parties. 最终产品针对 EAS 定制开发，须开放所有源代码、技术文档给客户以供维护，版权双方共有。

## 9. Warranty 质保

Provide three-month online support after the implementation of the system, and then one-year warranty period after the end of the three-month online support. During this period, the developer is responsible for the following technical support 项目上线后提供 3 个月的上线支持，上线支持结束后，再提供一年质保。在此期间，开发人员应提供以下技术支持：

- Update patches 更新补丁
- Fix bugs 修复错误
- Make post-deployment changes to the system based on feedback from user experience 根据用户体验反馈，对系统进行部署后更改。

## 10. Scope of price proposal 价格

Vendors have to submit their technical and financial (price offers) as separate components of one application as follows 供应商应提交技术和财务（报价）方案，作为投标文件的组成部分，包括：

- Comprehensive CV 综合介绍
- Technical proposal 技术方案
- Financial proposal 财务方案

The offer should be all inclusive (Lump Sum Amount), with all costs (professional fees, travel costs, living allowances, communications, consumables, etc.) that could possibly be incurred by the consultant should already factored into the final amounts submitted in the proposal 报价应为包干价（包干总价），包含指派顾问在项目工作期间可能产生的所有费用（专业费用、差旅费、生活补助、通讯、消费品等）。

The contract price is fixed regardless of changes in the cost components. 即使费用细分项目调整，合同总价固定不变。

Applications must be clearly marked “MP & EAS PPP Project” 申请时候需要注明 “MP & EAS PPP 项目”

## 11. Annexure I – Detailed scope of the project 附件 1-具体项目范围

The details of the scope includes following 具体项目范围包括以下：

### 11.1 System Requirement Specification 系统需求规范

#### 11.1.1 Database 数据库

Using SQL SERVER database in EAS. 东亚采用 SQL SERVER 数据库。

he system must encrypt personal data, usernames and password stored in the database using Advanced Encryption Standards (AES). 系统必须采用高级加密标准（AES）对储存于数据库中的个人资料、用户名称及密码进行加密。

#### 11.1.2 Application 应用

All request and data transfer between the server and the database must be done over an SSL connection. 服务器和数据库之间的所有请求和数据传输都必须通过 SSL 连接完成。

The application shall have tutorial documentation, for the purpose of educating new users as well as acting as a reference. Clear procedures and proper protocol must be explained in detail, as often these tasks must respect both legal and business concerns. These procedures shall be presented in step by step instructions which are accompanied by both screenshots and application tooltips. The goal here is to produce an interface which can self-teach its own practice to any first time users. 应用文件应包含教程，以便对新用户进行指导并作为参考资料。必须有清楚流程和适当协议（计算机术语）的详细解释，通常应该既遵循相关法规又能符合相关业务需求，通过操作程序的逐步说明，并附带截图和应用程序工具提示，以方便首次使用的用户独立学习和操作。

### **11.1.3 Communication 通信**

All communication between the server, session app and system application will be done over SSL. 服务器、会话应用程序和系统应用程序之间的所有通信都将通过 SSL 完成。

The database will communicate via an encrypted remote connection using SSL. 数据库将使用 SSL 通过加密的远程连接进行通信。

### **11.1.4 Interoperability 互操作性**

System should support 系统需支持：

- Data transfer and sharing on much more than a local or enterprise-wide scale 远超本地或企业范围的数据传输和共享
- Knowledge transfer and integration 知识转移与整合
- Image transfer 图像传输
- Integration with SAP and non-SAP applications 与 SAP 和非 SAP 应用程序集成

### **11.1.5 System error correction 系统误差修正**

The system must require high levels of error correction and input validation. 系统要求高水准的误差校正和输入验证。

### **11.1.6 Others 其它**

All electronic approval processes shall be based on the organizational structure consistent with the one for OA system (synchronize with HR). 所有的电子审批流程，使用和 OA 系统一致的组织机构（同步 HR）。

## **11.2 Modules 模块**

The major features include, but not limited in each digital transformation process. 主要功能包括但不限于各项数字化转型流程。

Able to work flexible in the digital tools; QR code, Web-based both computers and mobiles/tablets, Mobile responsive, Work flow etc. 能够灵活地使用数字化工具：二维码、网络计算机和手机/平板电脑、移动端响应、工作流程等。

Develop Purchasing Management Platform at least following feature 开发采购管理平台至少要有以下特征:

### 11.2.1 Vendor registration 供应商注册

(1) The EAS Purchasing System is designed according to the East Asian system. It can publish purchasing policies, latest bidding information, provide new vendor registration and entry for vendors. All vendors can apply for registration by filling in materials on the website. However, the application submitted must be examined by purchasing department, technology department, quality management department, risk control department, law department and so on. Only after the examination and approval can the vendor become a potential vendor. Then, according to the actual situation, the purchasing department decides which potential vendors can register in SAP system and become a formal vendor. 东亚糖业采购系统根据东亚制度进行设计, 可以发布采购政策、最新招标信息, 提供新供应商注册、供应商登录入口。所有供应商都可以到网站填写材料申请注册。但提交的申请必须经过采购部、技术部、质量管理部、风险控制部、法务部等部门审核, 审核通过的供应商才能成为潜在供应商, 然后由采购部根据实际情况决定哪些潜在供应商可以注册到 SAP 系统, 成为正式供应商。

(2) The vendor clicks to apply for registration, and then pops up the registration declaration (the declaration includes the rights and obligations of both parties, such as the declaration of accepting payment terms after the expiration of qualification information or certificate, etc.). The price information issued by the vendor after successful registration has legal effect, and the vendor is responsible for it. The declaration documents need to be sealed and uploaded to the system for preservation). Click on the consent declaration to continue. Registration. Registration needs to be validated by entering mobile phone number or mailbox, and the validation code is correct before registration can continue. When vendors apply for registration, they need to fill in basic information: company name, country, province, city (country, province, city can be directly checked), address, unified social credit code, bank code, opening bank, public account, mailbox, telephone (fixed telephone and mobile phone, with more than two contacts); qualification information: registration fund, registration time, annual turnover. Vendors can select the scope of supply they apply for, and vendors need to upload relevant documents and attachments, such as company area, fixed assets, number of employees, main products, monthly production capacity, main customers, honors, patents and expiration time, certificates and expiration time. 供应商点击申请注册, 先弹出注册声明(声明内容包括双方权利义务, 如资质资料或证件到期后主动更新、接受我司的付款条件的声明等, 注册成功后供应商发布的价格信息具有法律效力, 供应商需负责等, 声明文件需盖章上传系统保存), 点击同意声明才能继续注册。注册需输入手机号或者邮箱进行验证, 验证码正确才能继续注册。供应商申请注册, 需要填写基本信息: 公司名称、所在国家、省份、城市(国家、省份、城市可以直接勾选)、地址、统一社会信用代码、银行代码、开户行、对公账户、邮箱、电话(固话和手机, 留两个以上联系人); 资质信息: 注册资金、注册时间、年营业额、公司占地面积、固定资产、员工人数、主要产品、月产能、主要客户、所获荣誉、专利及到期时间、证书及到期时间等, 供应商可以勾选自己申请的供货范围, 供应商需上传相关证件附件。

(3) After the vendor completes the information and submits the registration application, the purchasing department, the technology department, the quality management department, the risk control department and the law department will examine and approve according to the procedure. The vendor who has applied for registration can check the approval progress and result at any time by inputting the initially verified mobile phone number or mailbox. The vendor in the approval process can not repeat the application. The examining and approving department can reject to the vendor and

check the reasons for rejection or fill in the reasons for rejection by itself, and remind the registered vendor that the vendor should submit the information again after perfecting the information. The departments that have already examined and approved before do not need to re-examine and approve, but directly submit to the rejecting department. When the approval department approves, it can modify the information of vendor's supply scope, but other information can't be changed. After the approval has been passed, the vendor will become a standby vendor, and the information reminds the vendor to pass the audit. The system standby vendor function can be used. The approved vendor will automatically receive the login account (unified vendor number) and the initial login password (account and password are sent by SMS, email or displayed directly on the page), and the vendor can also pass the initial verification of the mobile phone number. E-mail or micro-mail scanning for login (after approval, you can modify the associated mobile phone number or e-mail). Purchasing Dept. can decide which standby vendors can submit to SAP system in batches or separately according to actual needs, which do not register for the time being, and the information of registered vendors submitted can flow directly to Computer Dept. for registration. Standby vendors who are not registered with the SAP system can also make normal quotations for the system, but cannot place orders and make payments. The home page of the system has the main function operation instructions, East Asian quotation requirements and vendor management system. After successful registration, vendors can be checked. After the vendor landed, the home page shows the name of the company and the vendor code. In order to prevent malicious application for registration, the enterprise information filled in is not true and should not be able to submit the application, with prompt information. The same company or mobile phone, e-mail repeated submission of registration applications failed five times, can not continue to apply within one day, and there is prompt information, administrators have the right to blacklist a company or mobile phone, e-mail re-application. Successful registered vendors need to enter validation codes and can modify passwords to support vendors to retrieve passwords through email and mobile phone validation. Administrators have the right to reset user passwords. 供应商填写完资料提交注册申请后, 采购部、技术部、质量管理部、风险控制部、法务部等按流程进行审批, 已申请注册的供应商通过输入初始验证的手机号或者邮箱可以随时查看审批进度及审批结果, 审批中的供应商不能重复进行申请。审批部门不通过可以驳回给供应商并可以勾选驳回理由或自己填写驳回理由并提醒给注册供应商, 供应商完善资料后重新提交, 之前已审批的部门不用再审批, 直接提交到驳回部门。审批部门审批时可以修改供应商供货范围信息, 其他信息不能修改。审批全部通过后成为备用供应商, 并信息提醒供应商审核通过, 可以使用系统备用供应商功能, 审核通过的供应商自动收到登陆账号(统一供应商编号)和初始登陆密码(账号和密码通过短信、邮件发送或者直接在页面显示), 供应商也可以通过初始验证的手机号、邮箱或者微信扫描进行登陆(审核通过后可以自己修改关联的手机号或者邮箱)。采购部可以根据实际需求, 批量或单独决定哪些备用供应商可以提交注册到 SAP 系统, 哪些暂时先不注册, 提交的注册供应商信息直接流到电脑部进行注册。未注册到 SAP 系统的备用供应商也可以进行系统正常报价, 但无法下单及付款。系统首页有主要功能操作说明及东亚报价要求和供应商管理制度, 供应商注册成功后可以进行查看, 供应商登陆后, 首页显示登陆的公司名称及供应商代码。为防止人为恶意申请注册, 所填写企业信息不属实应不能提交申请, 并有提示信息。同一公司或手机、邮箱重复提交注册申请 5 次未通过, 1 天内不能再继续申请, 并有提示信息, 管理员有权限拉黑某一公司或手机、邮箱再申请。注册成功的供应商登陆需输入验证码, 并且可以修改密码, 支持供应商通过邮箱和手机验证找回密码, 管理员有权限重置用户密码。

(4) Assessment teams composed of purchasing department, technology department, quality management department, risk control department and law department evaluate new vendors, information submitted by vendors, information submitted by purchasing department to audit business, technical department to audit technical information, quality management department to audit quality information, risk control department to audit comprehensive information, law department to audit

legal affairs information, etc. Vendor name or unified social credit code can be linked to the "National Enterprise Credit Information System" for verification, and early warning information will be issued when there are inconsistencies or abnormalities. 采购部、技术部、质量管理部、风险控制部、法务部等组成的评估小组对新的供应商进行评估，供应商提交的信息，采购部审核商务方面信息，技术部门审核技术方面信息，质量管理部审核质量方面信息，风险控制部审核综合信息，法务部审核法律事务信息等。供应商名称或统一社会信用代码可关联到“国家企业信用信息公示系统”进行验证，不符或存在异常时发出预警信息。

(5) According to the purchasing items that vendors apply for cooperation, they are automatically categorized (such as engineering, equipment, office supplies, labor insurance supplies, etc.). After the vendor applies for registration, all vendor information forms a database in the system. The vendor status includes audit, approval, registration (registered to SAP system), audit failure, freezing (vendor certificate expiration automatic freezing, vendor abnormal situation can apply for freezing, vendor continuous quotation without winning bid to reach 10 automatic freezing), etc., can be selected. Select different states for classified query, only the status is audited and approved and registered vendors can use the system function normally. Vendor information can also be queried by registration time range, vendor name, supply range, region, etc. The query results can be exported to EXCEL form. 根据供应商申请合作的采购项目，自动归类（如工程类、设备类、办公用品类、劳保用品类等）。供应商申请注册后，所有供应商信息在系统形成数据库，供应商状态包括审核中、审核通过、已注册（注册到 SAP 系统）、审核不通过、冻结（供应商证照到期自动冻结，供应商出现异常情况可以申请冻结，供应商连续报价而从未中标达到 10 次自动冻结）等，可以选择不同状态进行分类查询，只有状态是审核通过和已注册的供应商才能正常使用系统功能。供应商信息还能通过注册时间范围、供应商名称、供货范围、地区等进行查询，查询结果可以导出 EXCEL 表格。

(6) EAS provides the classification of purchased goods and services. After publishing to the system, it provides vendors with the choice when registering or updating information. 东亚糖业提供采购物资和服务的分类，发布到系统后，提供给供应商注册或更新资料时选择。

(7) After vendor data is updated, vendor can be notified to the vendor. When vendor applies for registration, it can check the status of approval at any time. If the approval is not passed, the information will be fed back to the vendor and the reasons for the failure will be indicated. After the approval, the information will be fed back to the vendor, and the information will remind the vendor what functions can be operated. After the vendor's approval, the information will be sent back to the vendor to remind him that the account can't be used normally after the certificate expires or is frozen for other reasons, so the account should be applied for thawing. If the certificate expires, the vendor should update the date of the certificate and re-upload the attachment before submitting it to the Purchasing Department for re-examination and approval. If multiple quotations fail to win the bid or quality issues are frozen, the purchaser can only apply for thawing and submit it to the purchasing manager for approval and thawing. 供应商数据更新后通知供应商，供应商申请注册可以随时查看审批状态，审批不通过会信息反馈给供应商并注明未通过原因，审核通过后信息反馈给供应商，并信息提醒供应商可以操作哪些功能。供应商审核通过后因证照到期或者其他原因被冻结后会信息反馈给供应商提醒被冻结，账号无法再正常使用，需申请解冻。如果是证照到期则需供应商更新证照日期和重新上传附件后提交采购部重新审批。如果是多次报价不中标或者质量等问题被冻结，则只能由采购员申请进行解冻，提交采购经理进行审批解冻。

(8) Vendors that fail to pass the audit or freeze may be removed in batches. To delete the approved vendor, it needs approval from the purchasing manager. Deletion is marked deletion, non-physical deletion. For the vendor that has applied, it can only be marked as deletion status, not physical



deletion of relevant information. 审核不通过或者冻结的供应商，可以进行批量删除。审核通过的供应商要删除需经过采购部经理审批。删除为标记删除，非物理删除，对于已申请的供应商，只能标记为删除状态，不能物理删除其相关资料。

(9) When vendors register, the scope of supply can be checked and revised by the approval department. If the vendor wants to increase or decrease the scope of supply, the purchaser must apply for approval by the evaluation team. 供应商注册时勾选供货范围，审批部门审批时可以修改，审核通过的供应商如要增加或减少供货范围则需由采购员进行申请，提交评估小组审批。

(10) Vendors who sign long-term contracts can upload and maintain product pictures, prices, price validity period, delivery date and other information for East Asian companies to choose and purchase. 签订长期合同的供应商可以上传、维护产品图片、价格、价格有效期、货期等信息，供东亚公司选择采购。

### **11.2.2 Purchase requisition 请购**

(1) User departments can directly enter purchase applications in this system through computer/mobile APP. Leaders of relevant authority will examine and approve the purchase applications in computer/mobile APP. Information reminders will be pushed in each link and imported into SAP system together with the appendix I uploaded after approval. 使用部门可通过电脑/移动 APP 在本系统直接录入采购申请，相关权限领导在电脑/移动 APP 进行审批，各环节推送信息提醒，批准后与上传的附件一并导入 SAP 系统。

(2) User departments can scan the QR code of the material, fill in the quantity, price and other information for purchasing application. 使用部门可通过扫描物料的二维码，填写数量、价格等信息进行采购申请。

(3) Purchasing applications run through MRP are generated after warehouse examination and approval, and the information of purchasing application forms is read by the system. 通过 MRP 运行出来的采购申请，经仓库审核通过后生成采购申请单，系统读取采购申请单信息。

(4) Users can create maintenance worksheets through SAP PM system for purchasing applications, and display the content and execution status of purchasing applications in the system. 使用部门可通过 SAP PM 系统创建维修工单进行采购申请，在系统中显示采购申请内容及执行状态。

(5) Real-time feedback of procurement application approval status in system/mobile APP, when overtime approval, send reminder information to relevant links 采购申请审批状态实时反馈在系统/移动 APP，超时审批时，发送提醒信息至相关环节。

(6) Purchasing application management is divided into three levels: emergency, routine and local. Priority approval and reminder authority for emergency purchasing materials 采购申请分级管理，分为紧急、常规、本地三级，紧急采购物资优先审批、提醒权限。

(7) Priority approval and reminder authority for Emergency Purchasing materials. The demand department applies in the system, and after approval by the authority leader of the factory, generates an emergency requisition workflow and submits it to the purchasing department for approval. After approval, it goes through the purchasing process. The emergency requisition warning information is sent to the relevant business personnel of the purchasing department, and shows the reasons for the

emergency and the time of arrival. For Emergency Purchasing without requisition, it is done offline, manually input the system after generating orders or contracts, and perform follow-up operations online. Strict classification and restrictions will be imposed on such requisitions. 紧急采购物资优先审批、提醒权限。由需求部门在系统中申请，经工厂权限领导批准后，生成紧急请购 workflow 提交到采购部审批，审批通过后走采购流程，紧急请购预警信息发送给采购部相关业务人员，并显示紧急理由及要求到货时间。对于未请购即要进行的紧急采购，在线下进行，生成订单或合同后手工录入系统，线上执行后续操作。将对该类请购实行严格的分类和限制。

(8) Local purchasing of less than 1000 yuan is carried out by factories in-situ with tripartite price comparisons. The price comparisons are created on the system and provided to the purchasing department for approval. After approval, orders can be placed. 小于 1000 元的本地采购由工厂就地实行三方比价，在系统上创建比价单提供给采购部审批，审批通过即可下订单。

(9) Provide an instant communication platform (Instant Messaging for EAS, vendors and buyers, clicking on the name of each sponsor can pop up the chat window, can send text, pictures, screenshots, and can provide personal information, fill in the phone, mailbox) 提供即时交流平台（东亚公司内部、供应商和请购人即时通讯，点击每个请购发起人名称可以弹出聊天窗口，可以发送文字、图片、截图，并且可以备注个人信息，填写电话、邮箱）。

(10) Purchase information is connected with SAP system in real time and budget control is implemented. Only purchasing within budget can continue online purchasing process. 请购信息实时与 SAP 系统对接，实行预算控制，只有预算内的请购才能继续走线上采购流程。

### 11.2.3 RFQ & Price comparisons 询价、比价

(1) To build an online electronic mall in East Asia, all vendors who have signed a long-term contract will put all the product specifications, models, prices, delivery dates and pictures in the mall. Each vendor can only see their own product information, but not the product information of other vendors. After the factory makes the requisition, if it is the product in the long-term contract, the factory directly goes to the mall to select the corresponding products and generates the purchase application form. After submitting to the factory leadership for approval, the factory directly creates the purchase order (the order can be printed according to the EAS format). Information will be alerted to the vendor after the order is generated. The vendor arranges the delivery directly. After receiving the goods, the factory will settle the payment directly according to the contract and the order. 构建东亚网上电子商城，所有签订了长期合同的供应商将合同内产品规格、型号、价格、货期、图片等全部放到商城，每个供应商只能看到自己的产品信息，不能看到其他供应商的产品信息。工厂做请购后，如果是签订长期合同内的产品，工厂直接到商城选定相应产品生成采购申请单，提交工厂领导审批后直接创建采购订单（订单按东亚格式，可以打印）。订单生成后会有信息提醒到供应商，供应商直接安排发货，收货后凭合同和订单，由工厂直接进行付款结算。

(2) In the future, if the E-commerce Mall in East Asia forms a scale, it can not only meet the needs of the group, but also sell to the outside world. The E-commerce Mall in East Asia collects service fees and needs to leave room for expansion of its functions to meet the registration and purchase needs of other enterprises and individuals. (Optional Features) 将来东亚电子商城如果形成规模，除了满足集团需求外，还可以对外进行销售，东亚收取服务费，需留有相应功能扩展空间，满足其他企业和个人注册、采购需求。（可选功能）

(3) Ordinary requisition, after the approval of the factory is completed, the corresponding purchasing agent will receive information reminding that there is no processing requisition, and can be inquired by the factory or by the tracing number of the agent in batches. The requisitions that have not been inquired, inquired and placed have different status. After receiving the requisition from the factory, the vendor is directly pushed to the corresponding vendor according to the material information. The information reminds the vendor to make a quotation, limits the quotation time, and cancels the quotation qualification of the vendor who has not made a quotation beyond the quotation time. Before the end of the quotation, the owner can not see the quotation information. At the end of the quotation time, the quotation sheet is automatically generated and sent to the corresponding purchaser. The quotation sheet is displayed as [no quotation]. The requisition that has been sent to the vendor for quotation can be inquired by the purchaser according to the key words of factory, sending date, requisition date, requisition number, vendor and so on, and the progress of quotation can be monitored. If the vendor completes the quotation in advance, or the purchaser wants to finish the quotation in advance, he can click to finish the quotation in advance. If the use department requests re-inquiry, the use department should fill in the reasons, and the purchaser should withdraw the inquiry form and re-issue it. If the purchaser fills in or chooses the vendor incorrectly, he should withdraw the inquiry form and re-modify it. The purchaser should fill in the reasons and submit them to the purchasing manager for approval. The vendor's quotation is the text information of the notes, which can be imported directly into the price comparison page. If some materials are not quoted by vendors, the purchasing department will initiate off-line communication and then re-initiate the quotation. When there are fewer than two quotations from vendors, the quotation is invalid and the inquiry needs to be re-initiated. 普通请购，工厂审批完成后，采购部相应经办人会收到信息提醒有未处理请购，可以按工厂或者按经办人跟踪号批量查询出来，未询价、已询价、已下单的请购有不同状态区别。收到工厂请购后，根据物料信息直接推送给相对应供应商，信息提醒供应商进行报价，限定报价时间，超过报价时间未报价供应商取消报价资格。报价结束前所有人看不到报价信息，报价时间结束自动生成比价单流给相应采购员，未报价客户，比价单上显示为【不报价】。已发送给供应商进行报价的请购单，采购员可以根据工厂、发送日期、请购单日期、请购单号、供应商等关键字批量查询出来，并可以监测报价进度，如果供应商提前报完价，或者采购员想提前结束报价，可以点击提前结束。如是使用部门要求重新询价，需使用部门填写原因，采购员撤回询价单后重新发布，如是采购员填写或选择供应商错误需撤回询价单重新修改，采购员需填写原因提交采购部经理审批。供应商报价是备注的文本信息可以直接导入到比价单页面。如部分物资无供应商报价，由采购部发起线下的沟通，再重新发起报价。供应商少于两家报价时，报价作废，需要重新发起询价。

(4) The price list of less than 40,000 yuan is examined and approved by the purchasing manager in the system. After the price list of more than 40,000 yuan is approved by the purchasing manager in the system, the purchasing agent needs to print it out and sign it to the president. The inquiry list of more than 100,000 yuan needs the participation of the internal audit department in the bid opening. The bid opening is carried out online, the bid opening workflow is set up and managed. More than 500,000 yuan needs to be tendered publicly. After vendor quotes price list, each line of material defaults to select the lowest quoted customers. Purchasers can adjust the number of vendors and the number of quoted price lines and the winning customers according to the actual situation. If the quoted price list is not automatically formed or abnormal (can be deleted), purchasers can query the quoted price list in batches, and then manually generate the quoted price list. Single submission. After checking the quotation without abnormality, the purchaser submits it to the purchasing manager for approval. When the quotation is finished, the price comparison sheet is formed. At the same time, the bargaining function is provided. The bargaining price over a certain amount (amount to be determined) needs internal audit to participate in, realizing the tripartite online negotiation (similar to the way of

Wechat group chat, Optional Features). After the bargaining, the vendor fills in the price again, but the original price needs to be retained and can be checked. The price list has text boxes to fill in instructions and instructions for purchasers and approvers. The price list is in EAS format and can be saved, printed and signed by leaders before submission. Purchasers or factories can manually send inquiries to target vendors according to the platform operation process. 4 万元以内的比价单由采购部经理在系统审批完成, 超过 4 万元的比价单由采购部经理在系统批完后, 采购经办人需要打印出来给总裁签字, 超过 10 万元的询价单需要内审部门参与开标, 开标在线上进行, 设置开标 workflow 进行管理, 超过 50 万元需要公开招标。供应商报完价形成比价单后, 每一行物料默认选择报价最低的客户, 采购员可以根据实际情况调整比价单上报价供应商数量及比价单行数和中标客户, 未自动形成比价单或者比价单有异常的(可以删除), 采购员可以批量查询到报完价的报价单, 然后手工生成比价单再提交。采购员核对报价无异常后提交采购经理审批, 报价结束形成比价单后, 同时, 提供议价功能, 超过一定金额(金额待定)的议价需内审参与, 实现三方线上议标(类似微信群聊的方式, 此为可选功能), 议价结束后由供应商重新填写价格, 但原始价格需保留, 可以查看。比价单有文本框给采购员及审批人员填写说明及批示内容, 比价单按东亚格式, 提交前可以保存, 可以打印, 有领导签字地方。采购员或者工厂按平台操作流程可以手动向目标供应商发送询价单。

(5) Online Bidding and Auction: Selectively send bidding and bidding information, set the base of price reduction/increase, real-time quotation by suppliers according to the specified time period, suppliers can see their real-time ranking situation.网上竞价、竞拍: 选择性发送竞价、竞拍信息, 设定降价/增价基数, 供应商按规定时间段实时报价, 供应商可看到各自实时排名情况。

(6) When the price list submitted by the purchaser exceeds the requisitioning unit price, the price list is transferred to the general manager of the use department for approval. When approving, budgetary data should be collected for judgment. If the price does not exceed the budget, after approval by the general manager of the use department, the approved new price will be updated to the requisitioning amount, and the next step of approval will be continued. If the factory has a designated brand, it also needs to be transferred to the factory for approval. Price list can be saved/printed before submission. Before submitting or after the authority leader refuses, the purchaser can modify the relevant contents, such as the amount, notes and other information on the original price list. 采购员提交的比价单超请购单价, 比价单转至使用部门总经理审批, 审批时, 需调取预算数据进行判断, 不超预算的, 经使用部门总经理批准后, 批准的新价格更新到请购金额, 继续下一步审批。工厂有指定品牌的也需要转至工厂审批。比价单提交前可先进行保存/打印。采购员在提交前或权限领导拒绝后, 可在原比价单上修改相关内容, 如金额、备注说明等信息。

(7) With the market price plate, even if the system does not have a requisition, vendors can publish their own market price and supply volume daily according to the material variety in the market price plate, forming a database, and can export the market price EXCEL form according to the time period, material variety, vendors and other queries. It can also automatically grab the vendor's system quotation or order price on the same day. The purchasing department can also publish the market price by itself. (Optional Features) 有行情价板块, 即使系统没有请购, 供应商也可以在行情价板块按物料品种每天发布自己行情价及供货量, 形成数据库, 可按时间段、物料品种、供应商等查询导出行情价 EXCEL 表格。也可自动抓取供应商当天系统报价或者抓取订单价格, 采购部也可自己发布行情价。(可选功能)

(8) The system can examine and approve the mobile client, quote and fill in the market price. The information reminder can be reminded by means of micro-mail and e-mail. At the same time, the system interface shows the information of the process that has not been processed. The mobile client reminder information only needs to remind the business that has not been processed, but does not need to remind every process. 系统可以在移动客户端审批，报价、填报行情价，信息提醒可以通过微信、邮件等方式进行提醒，同时在系统界面显示未办理流程信息，移动客户端提醒信息只需要提醒有未办理业务，不用每条流程都提醒。

(9) In addition to displaying the vendor name, the price comparison page should also show the vendor rank. 比价单页面除了显示供应商名称，还应该显示供应商等级。

#### **11.2.4 Vendor quotation 供应商报价**

(1) Send information to remind vendors (Wechat, e-mail, etc.) when inquiry form is sent, before quotation deadline, when winning bid or not winning bid is confirmed. 在询价单发送时、报价截止时间前、确定中标或未中标时发送信息提醒供应商（微信、邮件等）。

(2) Vendor quotation is tax-free price, tax rate is selected separately, delivery place and payment method can be selected (tax rate, delivery place, payment method and other conventional information can be set default, not to fill in every quotation), delivery time can be filled out manually. 供应商报价都为不含税价格，税率另外勾选，交货地点、付款方式可以勾选（税率、交货地点、付款方式等常规信息可以设置默认，不用每次报价都填写），交货时间手工填写。

(3) Since each purchase in SAP system is a separate tax rate, the system also needs to note the tax rate for each line (some will have different tax rates), but when quoting, the same quotation sheet can set the tax rate in batches at one time, vendors can also set the default tax rate, instead of filling in every quotation. 由于 SAP 系统上每一项请购都是单独备注税率的，所以系统也要每一行都要备注税率（有的会出现不同税率），但报价的时候同一张报价单可以一次批量设定税率，供应商也可以设置默认税率，不用每次报价都填一次。

(4) The text and accessories of factory requisition notes should be easy to see when vendor quotes, and the text box should be behind each item for vendor to note some information 工厂请购备注的文本及附件，供应商报价时要便于查看，并且每一项后面要有文本框便于供应商备注一些信息。

(5) The vendor can fill out the quotation form in the system, or export the inquiry information to EXCEL form, and import it into the system after completion. 供应商可在系统填写报价单，也可以将询价信息导出 EXCEL 表格，填写完毕后，再导入系统。

(6) The inquiry form is about to reach the quotation deadline and the vendor hasn't made the quotation yet. There will be prompt information on the system page. The vendor's Wechat and mailbox will also receive prompt information. No need to remind each of them. If there is a reminder information about the situation that has not been handled, the quotation will end or expire, and the reminder information will be automatically lifted. The vendor who has not quoted after the expiration of the quotation can not quote any more. To make the quotation again, the purchasing department should authorize the quotation separately. 询价单即将到达报价最后期限而供应商还未进行报价，在系统页面会有提示信息，供应商微信、邮箱也会收到提示信息，不用每一条都提醒，有未办理情况有提醒信息就行，报价结束或者到期，提醒信息自动解除。超期未报价供应商无法再报价，要重新报价需采购部单独授权。

(7) Every requisition shows the requisitioner. The vendor clicks on the name of the requisitioner to pop up an instant messaging dialog box, which can inquire about the number of requisitioners, send pictures and screenshots, and the dialog box can display the other party's contact telephone number. 每一项请购都显示请购人，供应商点击请购人名称可以弹出即时通讯对话框，可以询问请购人参数信息，可以发送图片、截图，对话框可以显示对方联系电话。

#### **11.2.5 Bidding management 招投标管理**

(1) Bidding documents are computerized. After examination, the documents are published on the website and can be sent to the mailbox of the designated vendor if necessary. 招标文件电子化，通过审核后，文档在网站公布，如有需要可发到指定供应商的邮箱

(2) Develop online bidding function to meet the online bidding function of procurement leading group and vendors. The process of negotiation should be recorded by video or voice, and the final result of negotiation should be recorded. 开发线上议标功能，满足采购领导小组、供应商一起参与的线上议标功能。议标过程要有影像或语音记录，并记录最终议标结果。

(3) The vendor replies to the quotation on the website at the prescribed time, and the technical information is sent to the designated technical group for evaluation. The evaluation results are fed back to the website platform for the reference of the bid evaluation team. The vendor's quotation information is summarized into a price list. The bid evaluation team reviews the website at the prescribed time and publishes it on the website. 供应商在规定时间内在网站回复报价，技术资料发给指定技术小组评审，评审结果反馈到网站平台，供评标小组参考，汇总供应商报价资料成比价单形式，评标小组在约定时间在网站进行评审，并在网站公布。

#### **11.2.6 Order management 订单管理**

(1) System orders (simple contracts) are made directly under 100,000 yuan. The orders have electronic signatures certified by third parties. More than 100,000 yuan for a formal contract, the formal contract signed and then transferred to the system order management, the order does not need to be signed and sealed by the vendor. Purchasing orders with long-term contracts, if the purchasing amount exceeds 100,000 yuan, do not need to re-conclude the contract and settle directly with the purchasing orders signed by both parties. 10 万元以下直接做系统订单（简易合同），订单上有第三方认证的电子签章。10 万元以上做正式合同，正式合同签订后再转成系统订单进行管理，该订单不需要供应商签字盖章。签订长期合同的采购订单，如采购金额超 10 万元，也不需要重新订立合同，直接以双方签订的采购订单结算。

(2) After the approval of the price comparison sheet, the purchaser can inquire the final winning materials and prices of each vendor in batches according to the key words of factory, vendor, date of the price comparison sheet, requisition number and so on, and the price can not be modified (the data can be exported to EXCEL form). Purchasers can select different materials in batches to generate one or more orders according to the winning bidding situation of each factory and vendor. The order price is the price approved by the price comparison order (different factories and vendors can not place the same order). 比价单审批完后，采购员可以按工厂、供应商、比价单日期、请购单号等关键字批量或单独查询到各个供应商最终中标的物料及价格，价格不能再修改（数据可以导出 EXCEL 表格）。采购员可以根据每家工厂、每家供应商中标情况，批量选定不同物料生成一张或者多张订单，订单价格就是比价单批准的价格（不同工厂、不同供应商无法下到同一张订单）。

(3) Payment methods for contracts and orders can be brought from the price comparison sheet or selected separately. Payment system can be increased. Because of the excessive payment methods, it is better to find out the required payment methods directly when you select them manually, instead of looking for them one by one. 合同、订单的付款方式可以从比价单带过来，也可以另外选定。付款方式系统可以增加，由于付款方式过多，手工选定的时候最好可以直接查询出所需要的付款方式，不用一个个去找。

(4) For purchasing projects over 100,000 yuan, formal contracts should be made. Contracts can be created directly according to price comparison orders or entered manually. Contract numbers can be automatically generated by the system. Systematic contracts need to be saved without leadership approval. Contracts can be generated only after approval by the purchasing manager. The purchaser can check the status of the order (saved, submitted, approved) by vendor, order date, order number, batch or individually, and can submit the order in batches or separately after storage. An order that has been approved may be amended, but it needs to be resubmitted after modification, and an order that has been submitted for approval may be withdrawn and resubmitted after modification. The order system automatically stamps the electronic stamp after the entry into force, and the vendor sees it and starts to execute it. The order generated by the contract shall not be sealed by both parties, and the contract shall prevail. 超过 10 万元的采购项目要做正式合同，合同可以根据比价单直接创建，也可以手工录入，合同编号由系统自动生成，系统合同只需保存，不用领导审批，合同生成订单，订单需要采购经理审批后才能生效。采购员可以按供应商、订单日期、订单号批量或单独查询到订单审批情况，查看订单状态（保存、已提交、已审批），并且可以批量提交审批，也可以单独保存后提交。已审批完毕的订单可以修改，但修改后需重新提交，已提交未审批的订单可以撤回修改后再提交。生效后的订单系统自动加盖电子章，供应商看到后开始执行。由合同生成的订单不用双方盖章，以合同为准。

(5) The vendor can check the order status in the system, and the order approval is passed. After the vendor audit is correct, the electronic seal is affixed. The order is valid, and both parties can print. If the vendor finds that the order information is incorrect, he will not stamp it first and inform the purchaser to modify or delete it. 供应商可以在系统查到达的订单状态，订单审批通过，供应商审核无误后加盖电子章，订单生效，双方可以打印。如供应商发现订单信息有误，则先不盖章，通知采购员进行修改或者删除。

(6) When an order is completed, both parties can inquire and print in batches, displaying the number of times of printing. Each order generates a two-dimensional code to display on the order. The two-dimensional code contains all the contents of the order. 签订完成订单，双方可以批量查询、打印，显示打印次数，每份订单生成一个二维码在订单上显示，二维码包含订单的所有内容。

(7) With the purchase order inquiry report, you can inquire the historical order price, order quantity, payment method and so on in batches according to the keywords of vendor, material and time period for reference. The inquiry result can be exported to EXCEL report form. 有采购订单查询报表，可以按供应商、物料、时间段等关键字批量查询历史订单价格、订货量、付款方式等情况，以供参考，查询结果可以导出 EXCEL 报表。

(8) There are purchase order tracking reports, which can query the results of arrival, warehousing, acceptance and payment according to the key words such as time period, factory, vendor, material, order number and so on. Vendors can also inquire about the implementation of their orders (arrival, warehousing, acceptance, ticket arrival, payment, etc.) by keywords such as time, factory, material, order number, etc. 有采购订单一站式跟踪报表，可以按时间段、工厂、供应商、物料、订单号

等关键字批量或单独查询出订单到货、入库、验收结果、付款情况等结果。供应商也可以按时间、工厂、物料、订单号等关键字查询出自己订单的执行情况（到货、入库、验收、到票、付款等）。

(9) With automatic reminder function, the vendor will have early warning information for the contract or order that is due. The system page, Wechat, e-mail and so on show that the vendor can click to see which contract orders are due. Early warning information of contract is read from contract management system 有自动催货功能，供应商即将到期而为到货的合同或订单有预警提醒信息，在系统页面、微信、邮件等显示，供应商点击可以查看哪些即将到期的合同订单。合同的预警信息从合同管理系统读取。

### 11.2.7 Contract management 合同管理

(1) Electronic contract: Realize the online drafting of contract, contract review and approval, electronic signature (support by a third-party platform is required) and filing. 实现合同电子化：合同的拟定、审批、电子签章（需要第三方平台支持）归档实现线上操作。

(2) Uniqueness of contract code, using factory English code + year + contract category + serial number 合同编码唯一性，采用工厂英文代码+年份+合同类别+顺序编号。

(3) Docking and sharing with SAP so that each department can understand the implementation of the contract (including arrival, progress, acceptance, payment, internal audit, vendor invoice, vendor score, supply-related information, etc.) 与 SAP 对接并共享，以便每个部门清楚合同的执行情况（包含到货情况、进度实施情况、验收情况、付款情况、内审审定情况、供应商开票情况、供应商得分、供应相关资料等）。

(4) Automatic push function: The system will automatically push notifications, such as time of payment, time of check and acceptance etc., two business days prior to the due time which is set in accordance with relevant contract terms. 各工作环节自动推送功能：系统根据采购合同的相关条款设定时间节点，到时间节点前 2 个工作日开始推送相关信息，如付款时间、验收时间等。

(5) Push of payment time: The basic information of the contract (contract parties, contract number, amount of payment, type of payment, name of equipment purchased, equipment code etc.) shall be shown when the payment notification is pushed. The said information shall be automatically generated in system and pushed level by level subject to the payment process. Apart from being displayed on PPP system interface, the notification shall be sent to related responsible person by text message, email, WeChat etc. in the meantime, preventing them from being missed in case the responsible person is away. 付款时间推送：推送付款信息时应显示合同的基本信息（如合同各方、合同编号、付款金额、金额类型、购买设备名称，设备编号等），系统自动形成该等信息后按公司的付款流程逐级推送，逐级推送时除了在采购管理平台系统界面显示外，还应有短信、邮件、微信等发送给相关负责人，预防相关负责人外出时因不打开采购管理平台系统而漏掉审批。

(6) Push of check & acceptance time: The acceptance form will be generated automatically in system according to the terms of the purchase contract and the nature of the purchase object, and automatically pushed to the business department and the check & acceptance team two business days prior to the due time. The check & acceptance team can confirm on computer or mobile APP directly, and then submit for approval level by level subject to the check and acceptance process. 验收时间推送：系统根据采购合同的条款及采购标的性质自动形成验收表，到时间节点前 2 个工作日自动



将验收表推送给业务部门及验收小组，验收小组可直接在电脑上或移动端应用程序上进行操作验收确认，并根据公司的验收流程逐级报送。

(7) Transform the contract contents into the traceable workflows in accordance with the regulation for authority limit. For instance, transform purchase contract into specific contract execution process (drafting - review & approval - formal contract – check & acceptance – receiving confirmation – receipt of invoice – payment). With the realization of contract review and approval on line (including approval on mobile APP), the approver can revise the contract on system. For contract revision, the reviser and revisions shall be recorded in system. For contract execution likewise, the payment of advance payment, retention and deposit shall be recorded in system. The status of contract execution and related evidence shall be input/edited by related department, or the data can be obtained from SAP, image system and other systems (able to provide data to other systems like SAP and contract management system meanwhile), for authorized person's inquiry/edition. 将合同内容转化为符合公司权限的可跟踪的工作流，如：将采购合同转化为具体的合同执行环节（拟定-审批-正式合同-验收-收货确认-收到发票-付款），合同审批时实现线上审批流程（含移动 APP 上审批），审批人可以在系统上修改合同，修改时体现修改人和保留修改痕迹，以及合同履行时体现预付款、质保金、保证金的相关支付记录等。合同执行的各环节状态及相关依据由相应部门录入/编辑，或从 SAP、影像系统等其他系统抓取数据（同时也需支持向 SAP、合同管理系统等其他系统提供数据），可供相应权限人员查看/编辑。

(8) After review and approval by authorized leader, the contract can be printed out, with the contract number, QR code (contains purchase materials, supplier, contract number , contract amount, etc.) and watermark on. 合同审批环节结束经权限领导批准后可以打印，打印出来的合同直接印有合同编号、二维码及水印，二维码包含请购物料、供应商、合同编号、合同金额等。

(9) In the event of supplement to, change on or termination of the contract required, the evidence and supplementary contract shall be filed with the master contract together. Meanwhile, the tracking information (terms) in the original contract shall be adjusted accordingly. 若合同需要补充、变更、解除时，将其依据和补充的协议与主合同一起归档，并根据变更内容调整原合同的跟踪信息（条款）。

(10) Automatic reminder and alarm: A deadline shall be set for each operation of the contract execution in accordance with the contract terms and the company regulations. In case any operation is about to expire or exceeds the time limit, the system will automatically remind the responsible person concerned. 自动提醒和预警：根据合同条款、公司规定设置合同执行过程中每个环节的完成时限，若某环节即将到期/超时，系统可自动提醒相应责任人。

(11) The template of the contract generated after review and approval each time shall be put into the contract pool, for options next time. 对每次生成的已审核过的合同样式，存入合同库，可供下次选择。

(12) Statement analysis function: Able to provide statement inquiry and analysis regarding the contract under execution or completely executed, including the amounts of advance payment, progress payment, payables and payment without invoice, so that every department can track the status of the contract execution (arrival of goods, execution progress, check before acceptance, payment, internal audit, invoice, supplier score, supplier information etc.). Besides, the monthly statement of each plant will be generated automatically consisting of the number of contracts and the contract amounts etc., which shall be pushed to the President and CEO. 报表分析功能：对正在执行

或执行完成的合同，可提供报表查询与分析，例如预付款、进度款、未付款、已付款未到发票的金额等分析与查询，以便每个部门清楚合同的执行情况（包含到货情况、进度实施情况、验收情况、付款情况、内审审定情况、供应商开票情况、供应商得分、供应商相关资料等），每个月自动按工厂生成报表，统计合同数量、合同金额等信息推送给总裁和 CEO。

(13) According to the contractual stipulation, the company's workflows and the nature of the purchase materials, a certain time flow shall be set in system, for instance, pushing reminder for check and acceptance X days after goods receipt, pushing reminder to supplier for invoicing X days after acceptance and pushing reminder for payment X days after invoice validation. 根据采购合同的约定、公司的操作流程及采购物料的性质，系统设置一定的时间流程，如收货后 X 天后自动推送信息提醒验收，验收合格后 X 天后自动推送信息提醒供应商开票，收到发票经校验真伪无误后 X 天推送信息提醒付款。

(14) In the event of breach of the contract by the supplier, the responsible person shall describe the breach in system, then the system will send related information to the address of service of the supplier reserved (email, WeChat, text message etc.). Afterwards, the information sent by the system can be the evidence that EAS has carried out the obligation of notification if EAS holds the supplier responsible for the breach of contract. The supplier's behavior may be regarded as breach of contract in the following circumstances of: failure to invoice within the stipulated time, overdue delivery, goods delivered not conform to what was specified in the contract, and failure to assume the warranty obligation in the event of quality issue during the warranty period. 当供应商出现违反合同约定的情形时，负责人在系统上描述违约情形后由系统将信息发送给供应商预留的资料送达地址（邮箱、微信、短信等），之后如果 EAS 要求供应商承担违约责任的话，可以以此证明 EAS 已经履行了告知义务，供应商出现违约的情形可能有：不按约定时间开票、逾期交货、交付的货物不符合合同约定、在质保期内出现质量问题不按合同约定承担质保义务等。

(15) For the function of contract management, an interface should be reserved to connect with the image system for some information, which might be required in the course of contract execution. File and save e-contract in the image system, easy to be found through interface when needed. 合同管理功能需预留接口与影像系统对接，合同执行过程中可能有些资料需要关联到影像系统。把电子合同归档存放在影像系统，可通过接口关联调用

### **11.2.8 Vendor Management 供应商管理**

(1) The system supports from vendor registration to certification evaluation, vendor primary selection to eventually becoming qualified vendor, vendor performance appraisal to vendor promotion or elimination, forming closed-loop management of vendor's whole life cycle, and continuously optimizing supply partner team. 系统支持从供应商注册到认证评估、供应商初选到最后成为合格供应商、供应商绩效考核到供应商晋级或淘汰，形成供应商的全生命周期的闭环管理，可不断优选供应合作伙伴队伍。

(2) Show the vendor's grade, check and pass the vendor's grade by vendor's qualification rate, price, quantity of supply (or amount of supply), arrival time rate and so on. (You can adjust the evaluation index and weight at any time, you can set different evaluation criteria according to different materials.) Over 85 scores are A, 70-84 scores are B, 60-69 scores are C, below 60 scores are D, and D scores are D. Customers can choose to freeze and suspend cooperation in batches. The vendor's grade information appears on the homepage in real time. The vendor clicks to see the main reasons for the deduction, and gives early warning and improvement suggestions (the early warning information can be preset

according to the grade and grading standard, or can be entered manually one to one. After the release of the assessment data, the vendor can see its assessment results on the homepage).显示供应商等级, 审核通过供应商通过供货合格率、供货价格、供货量(或供货金额)、到货及时率等进行打分(可以随时调整考核指标及权重, 可以按不同物料分别设定不同考核标准), 85分以上评级为 A, 70-84分评级为 B, 60-69分评级为 C, 60分以下评级为 D, 评级为 D 的客户可以批量选择进行冻结暂停合作。供应商等级信息实时出现在页面首页, 供应商点击可以查看主要扣分原因, 并给出预警和改进建议(预警信息可以按等级及评分标准预设, 也可以一对一手工录入, 考核数据发布后供应商可以在首页看到自己考核结果)。

(3) Different materials can be assessed according to different standards. The results can be inquired in batches according to assessment grade, material variety, grade score, etc., and can be arranged in ascending and descending order according to grade or equal division. The EXCEL table can be derived. 不同物料可以设置不同考核标准, 考核结果可以按考核等级、物料品种、等级分数等批量查询出, 并可以按等级或等分进行升序、降序排列, 可以导出 EXCEL 表格。

(4) In addition to displaying the vendor name, the price comparison page should also show the vendor rank. 比价单页面除了显示供应商名称, 还应该显示供应商等级。

### **11.2.9 Warehouse management 仓库管理**

(1) The vendor inputs and prints the invoice in the system. Each invoice has a two-dimensional code. The invoice arrives at the warehouse with the goods. The warehouse scans the two-dimensional code to store the invoice. The information of the invoice is sent to the user department. 供应商在系统录入、打印发货单, 每份发货单有一个二维码, 发货单随货到仓库, 仓库通过扫描二维码办理入库, 入库信息发送给使用部门。

(2) After submitting the application for material collection in the system, the authority leader passes the examination and approval, and then pushes it to the warehouse department. After the warehouse examination and approval is correct, the product will be delivered in SAP system. 使用部门在系统提交领料申请, 权限领导审批通过后, 推送到仓库部门, 仓库审核无误后在 SAP 系统发货。

(3) After the goods are stored in warehouse, information such as email and Wechat will be sent automatically to the vendor to remind them to issue invoices, and at the same time, it will be pushed to the user department to remind them to follow up the invoices. Invoice issuance progress can be inquired, such as: not notified, notified, issued, received, etc. 货物入库后, 自动发送邮件、微信等信息给供应商, 提醒其开具发票, 同时推送至使用部门提醒其追踪发票。可查询发票开具进度, 如: 未通知、已通知、已开具、已接收等。

(4) After arrival of the goods or completion of the project, the acceptance department fills in the "acceptance form" in the system and submits it to the authority leadership for approval. 到货或工程完工后, 验收部门在系统填写《验收单》, 并提交权限领导审批。

(5) Return or other acceptance exception information needs to be pushed to the vendor (WeChat, e-mail, etc.) 需要将退货或其他验收异常信息推送给供应商(微信、邮件等)。

(6) Each time the goods are received, the vendor should be graded. In the course of using, the vendor can also be graded once more.每次收货需对供应商进行评分，使用过程中还可以追加评分一次。

#### 11.2.10 Payment management 付款管理

(1) Before the SAP system confirms the service, the business department imports the content of the "Engineering Approval Form" and verifies it with the vendor. The "Engineering Approval Form" can be edited and revised at the mobile end. The internal audit department examines the quantity and unit price of the bill of quantities, fills in the "Approval Form" on the system, and after the approval of the vendor, the purchaser will submit the paper quality form. According to the purchase order uploaded to the relevant and made corresponding amendments, the final settlement price of the purchase order is based on the price approved by the internal audit and consultation with the vendor.工程类采购订单，在 SAP 系统做服务确认前，业务部门导入《工程核定表》内容，与供应商一起核定，《工程核定表》可在移动端编辑、修改，内审部门对工程量清单的数量和单价进行审核，在本系统上填写《审定单》，《审定单》经供应商同意后，采购员将纸质单据上传至关联的采购订单并做对应修改，采购订单最终结算价以内审与供应商协商核定的价格为准。

(2) The invoice and order can be matched quickly by EIS and QR, and the corresponding invoice information can be queried in the purchase order information.通过影像系统及二维码可将发票与订单快速匹配，在采购订单信息中可查询到对应的发票信息。

(3) In advance payment process, according to the judgment result of payment terms such as maturity date, the application data of advance payment will be automatically pushed to purchasing department for approval of invoice verification application of SAP system.预付款流程中，根据到期日等付款条件的判断结果，自动将预付款申请数据推送至采购部进行 SAP 系统发票校验申请审批。

(4) It can inquire about the proportion of advance payment of purchase order, the progress of advance payment and the invoice status of advance payment, and automatically remind the vendor of the business that the advance payment has not arrived (automatically send mail, Wechat and other information to remind the vendor of invoice issuance, at the same time push it to the use department to remind him to track the invoice)可查询采购订单的预付款比例、预付款进度、预付款发票情况，并对预付款未到票业务进行自动提醒（自动发送邮件、微信等信息给供应商，提醒其开具发票，同时推送至使用部门提醒其追踪发票）。

(5) Purchasing order status information can show the process progress (purchase application - purchase order - acceptance - warehousing - reminding invoice - receipt of invoice - invoice verification - payment request - payment approval - paid), including the quality deposit, margin related records and progress. After payment is completed, the vendor does not need to push the information to the vendor. The vendor inquires the purchase order/contract status information in the system.采购订单状态信息中可显示流程进度（采购申请-采购订单-接收-验收-入库-提醒开票-收到发票-发票校验-付款请求-付款审批-已支付），包括质保金、保证金的相关记录及进度。付款完成后，不需要推送信息给供应商，由供应商在系统中查询采购订单/合同状态信息。

(6) All approval procedures can be performed on mobile phones, tablets and laptops according to the authority.所有审批环节均可根据权限在手机、平板电脑、手提电脑进行审批操作。

(7) It has automatic checking function and generates regular checking bills within a certain period of time. The purchasing department and vendors can view and export them. The purchasing department can inquire the payment results and status in batches according to the name of vendor, payment time, factory, order number, agent, etc. The vendor can also inquire the payment results in batches. 有自动对账功能，定时生成一定期限内对账单，采购部、供应商可以查看，导出。采购部可以按供应商名称、付款时间、工厂、订单号、经办人等批量查询付款结果及状态，供应商也可以批量查询付款结果。

(8) At a specified time each month, non-material purchase order line information signed and not 100% service confirmation is sent to the user department for progress confirmation. After confirmation, the system automatically summarizes and fills in the Schedule Confirmation Form and sends it to the accounting department. 在每月指定时间将已签订且未 100%服务确认的非物料类的采购订单行信息发送给使用部门进行进度确认，确认完毕后，系统自动汇总成填入《进度确认表》并发送给财会部门。

#### **11.2.11 Material Master Data Management 物料主数据管理**

(1) The addition, modification and maintenance of material master data are not directly carried out in SAP system. The workflow of material master data is established in this system. The application for material addition or modification is submitted by the user department. After approval and approval by the Ministry of Technology, the material master data is imported into SAP system to update material master data. Updated reminders are pushed to relevant personnel. 物料主数据的新增、修改、维护不直接在 SAP 系统进行，在本系统建立物料主数据 workflow，由使用部门提出物料新增或修改申请，经技术部审批同意后，导入 SAP 系统更新物料主数据。更新后有提醒信息推送至相关人员。

(2) The historical price of materials can be shown on a chart. 物料的历史价格可图表显示。

### **11.3 General system requirements 系统通用要求**

#### **11.3.1 Technology Transfer 技术转移**

The developer needs to engage with the EAS's project team during the project period, this is to harness transfer of technology as minor corrections and support will be done in house. However the developer must note that the EAS team have limited IT knowledge. 项目期间，开发人员应与东亚糖业项目团队合作，通过技术转移使其能够自行对微小错误予以校正，相应的技术支持公司内部即可提供。但开发人员也应注意到东亚糖业团队的 IT 知识有限。

#### **11.3.2 Deployment of the system 系统部署**

The developer is required to come up with a schedule of activities highlighting; milestones and expected deliverables such as; signing of contract, collecting user requirements, the different phases of system development, deployment and roll out etc. 开发者应制定具体行动计划，包括重大事项和预期交付成果，例如：合同签订、收集用户需求、各阶段的系统开发、部署、上线等。

The developer should also support user in terms of stabilization and making the system acceptable by the end users. 开发人员还应在稳定性、促使终端用户认可和接受该系统等方面提供支持。

### **11.3.3 Training 培训**

The developer is required to provide training to the end users how to operate, management and administration of the system. This is also to provide an understanding of the system, its database and infrastructure configurations used during the implementation of the system. 开发者应为终端用户提供系统操作和管理等相关培训，加强对该系统及其数据库、以及所需基础设施配置的了解。

### **11.3.4 Documentation 文件**

Content business design document including data model, user manuals (including screenshots) and any other documentation of the assignment have to be completed and handed over to the user. 须完成业务设计文档，包括数据模型、用户手册（包括屏幕截图）和其它相关文档，并移交给用户。

### **11.3.5 Technical Support 技术支持**

The developer shall render all support activities related to the following up until the warranty period expires 质保期到期之前，开发人员还应提供后续支持：

- Troubleshooting at both application level and user level 应用程序故障的排除、用户问题的解决
- Assist focal official/client in operation of the portal 协助关键人员/客户熟悉门户网站的操作
- Fixation of bugs, incorporation of minor changes, etc. 错误修正、微调整合等