Chinese automotive logistics in the 2020s
2020年度中国汽车物流

Automotive Logistics Conference, Shanghai

上海汽车物流大会

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RPA：是一种企业级软件自动化解决方案

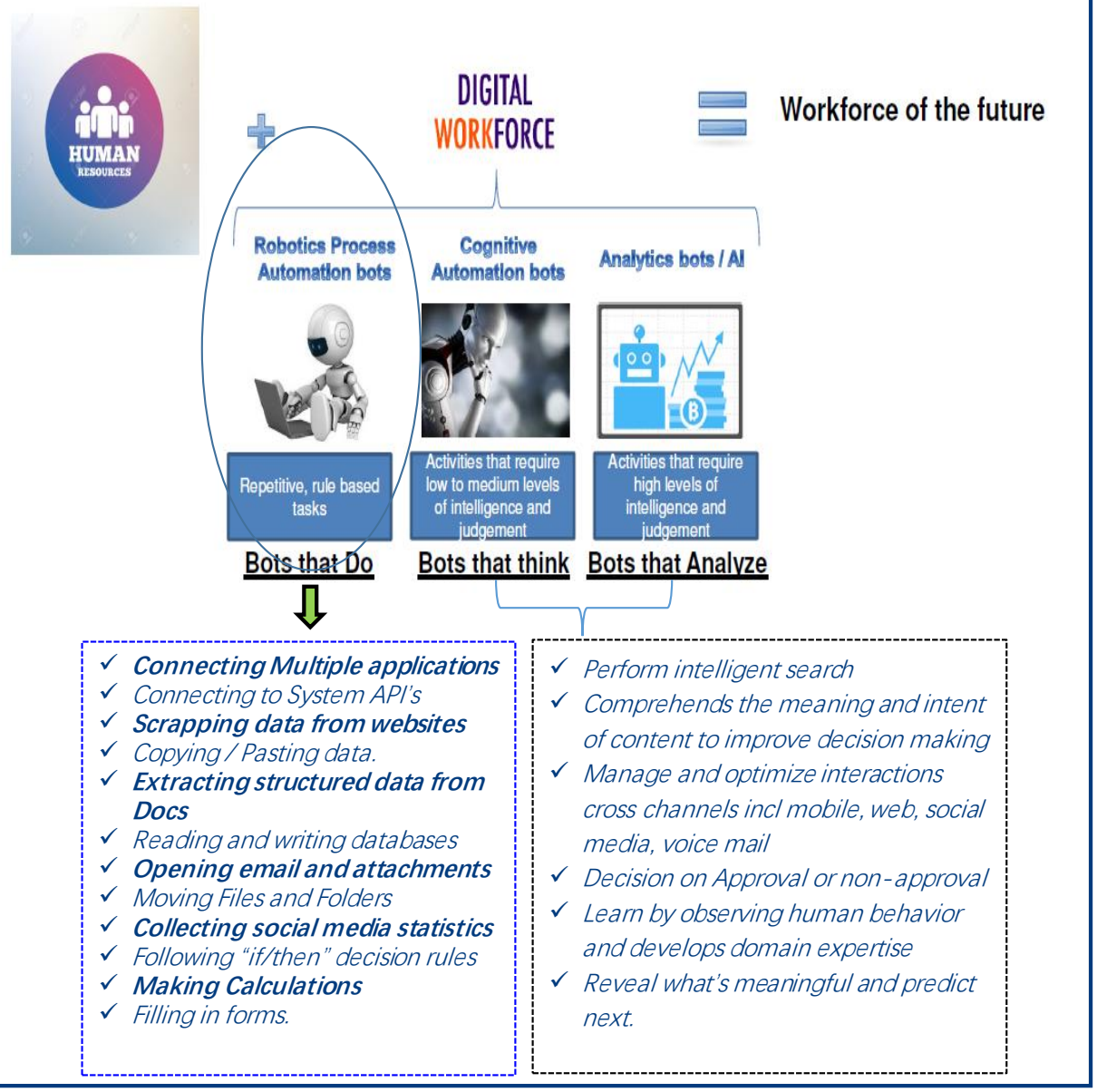
RPA is an enterprise software automation solution*

科技契机

Technology opportunity

概述：Overview：

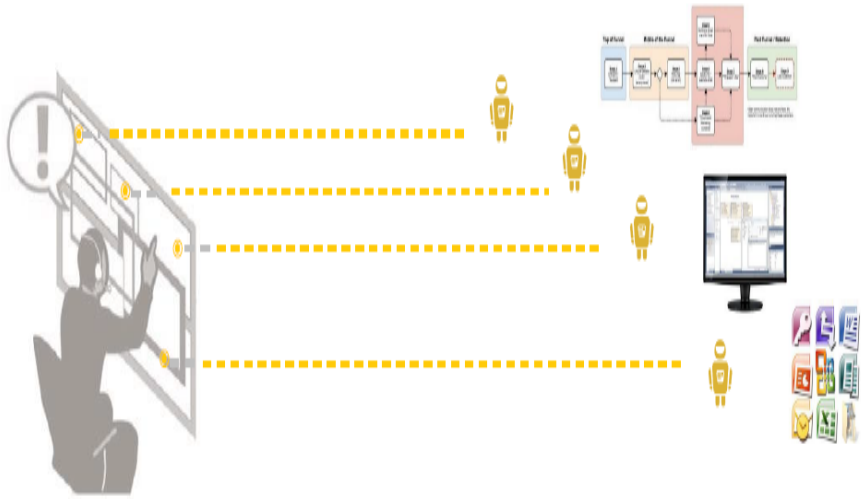
- ✓ Robotics Process Automation (RPA) is a **software program** designed to perform human tasks autonomously 软件程序
- ✓ RPA is a low investment solution, which is **scalable and can be rapidly implemented** throughout the company 规模化及快速发展
- ✓ RPA Deployment is **Business Centered Process** and can be adopted for changing business situations商务中心流程



透过现在跨业务应用界面，模仿员工执行重复的任务，提高效率并降低人为错误
Improving efficiency and reducing human errors by imitating employees to perform repetitive tasks through current cross-business application interfaces

创造收运营团队管理的虚拟劳动力，有效节约宝贵人力成本
Create virtual labor force managed by operation team and effectively save valuable labor cost

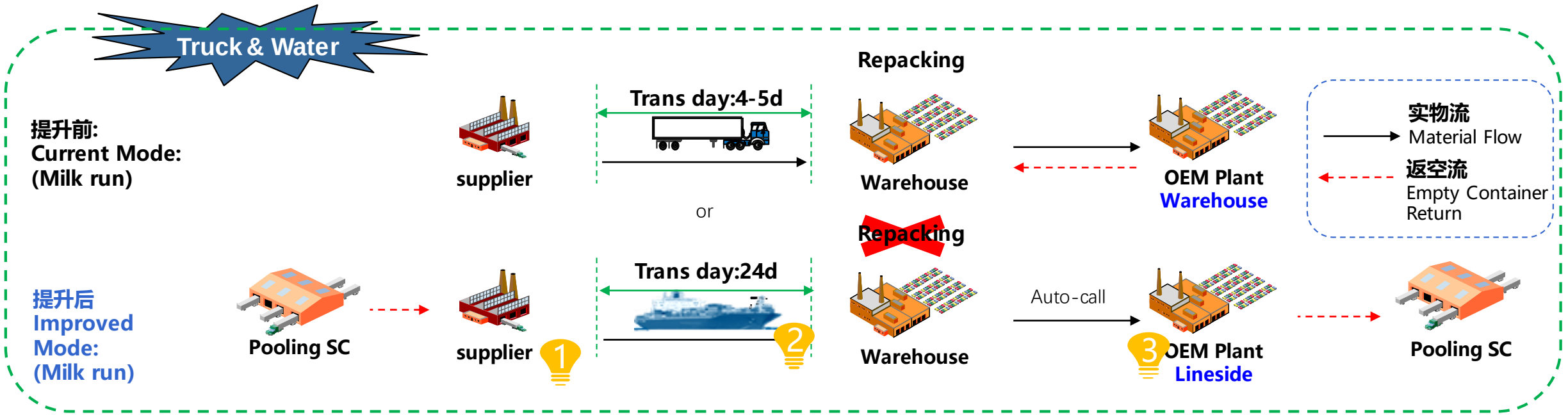
与现有的应用和基础设施完美融合，减少现有系统上线变更频率
Perfect integration with existing applications and infrastructure to reduce the frequency of online changes in existing systems



* 3rd party solution

供应商包装优化机会 Supplier Packaging Optimization Opportunity
入厂及厂内物流 In-bound and In-plant Logistics

入厂物料流优化机会
Logistics Process Improvement opportunity



Stage 1:
包装优化 Packaging Optimize

- 寻找包装费用降低方案
  To seek the package cost reduction solution
- 周转包装替代一次性包装，减少纸箱使用，提倡绿色环保理念
  replace expendable package by returnable, reduce carton box to be more environmental protection.
- 提高包装标准化程度
  Standard package

Stage 2:
运包一体化 Transportation & PKG Integration

- 已牵头启动包装服务商运包一体化调研，
  Work with PKG provider to submit the transportation & PKG integration solution. opportunities.
- 增强集并功能 enhance transportation consolidation
- 提升运输装载率 improve truck/container utilization

Stage 3:
厂内物流配送优化
In-plant material flow Improve

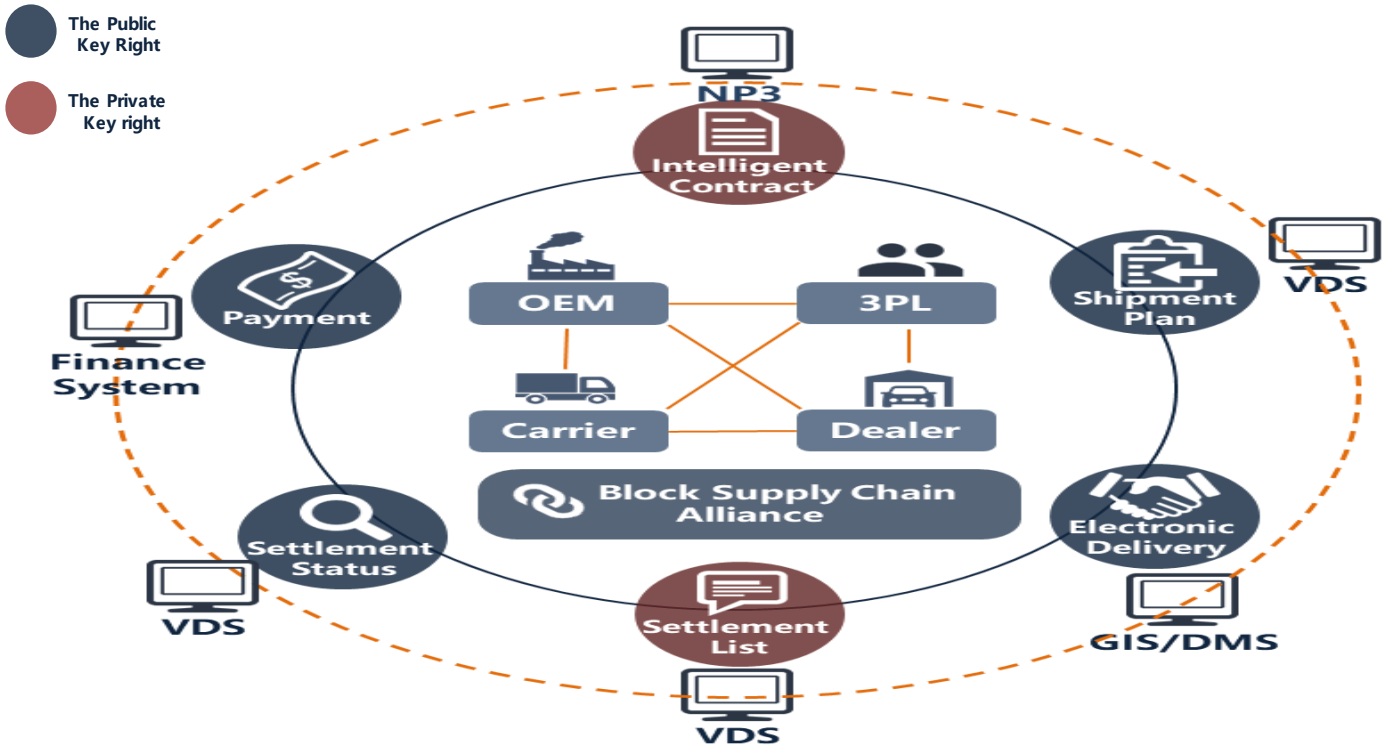
- 在WH进行auto-call物料拉动测试，预计不久后正式启用；减少不增值的中间环节，在WH翻包完毕后直接配送上线；
  Auto-call process from central warehouse. This effort will eliminate the non-added value operation at OEM plant warehouse. Parts will be delivered to lineside directly.

在出厂物流应用方案
Block chain Application in Vehicle Logistics (VL)

新领域的协同工作
Framework for New collaboratior

■**整车物流应用场景：关键单据全流程**上链，替代纸质单据，多方维护一个分布式的**公共账本**，所有相关方以公共账本数据进行对账结算，消除对账周期。

■Vehicle logistics application scenarios : Instead of paper documents, a distributed public ledger is maintained by multiple parties, and all relevant parties conduct reconciliation and settlement based on the public ledger data to eliminate the reconciliation cycle.



- **先期：** 进行**电子运单**试运行，缩短回单周期、对账周期，提高结算效率，培养操作习惯、建立参与方信任体系；开展基于自动对账的账期内运费预付等内部金融服务；
- **1st stage：** Use electronic waybill to improve settlement efficiency，Carry out internal financial services such as freight prepayment in account period based on automatic reconciliation;
- **后期：** 引入银行、保理等外部金融机构，提供融资、保理、即时支付等供应链金融业务服务。
- **2nd stage:** Introduce external financial institutions to provide financing, factoring, real-time payment and other supply chain financial services.

■ **该项目实施的收益包括以下方面:**
Benefits:

安全收益
Security benefits

- 无单据丢失、错乱风险 Documents safe
- 数据加密传输与保存，保护数据主权 Data safe
- 数据确权与不可篡改，增进业务方互信 Data reliable

管理效率
Management efficiency

- 缩短单证流转周期 Shorten document circulation cycle
- 缩短对账周期 Shorten reconciliation cycle
- 数据同步共享，提高合作效率 Real-time data sharing, improve cooperation efficiency

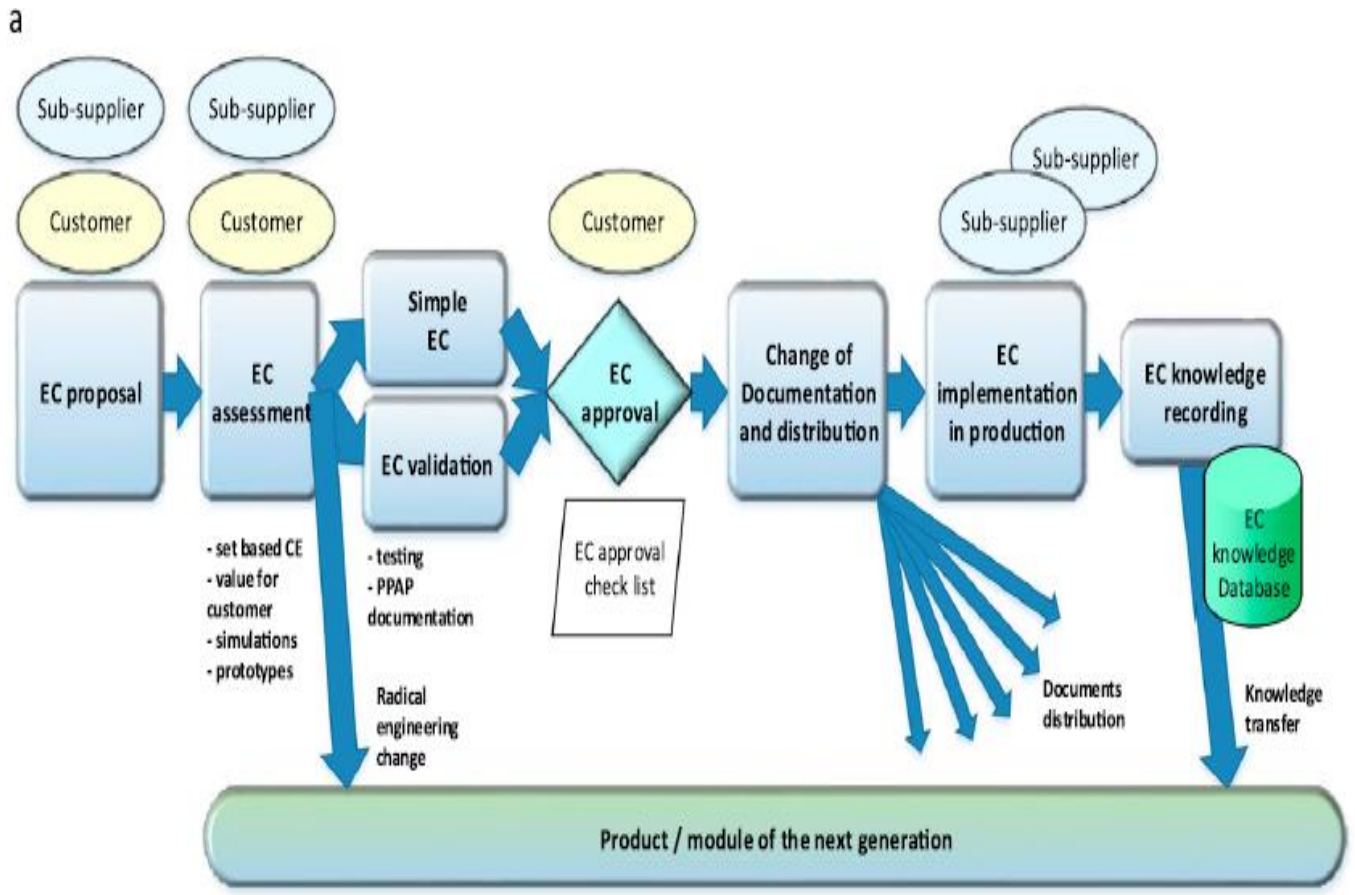
直接降本
Saving

- VLSP：单据打印、快递、保管、审核等费用
- OEM：单据打印、保管等费用
- **Documents cost saving of VLSP**

金融收益
Financial benefits

- 应付账款贴现融资收益
- **Discounted financing income of accounts payable**

工程变更流程优化与提升
Engineering Change Process Optimization



汽车供应链工程变更流程概述
Generalized ECC Process in the Automotive Supply Chain

Source: **Jože Tavčar, Ivan Demšar & Jožef Duhovnik** (2018)
ECM maturity assessment model with lean criteria for automotive supply chain

加速操作需求
Operational requirement to improve speed

- 项目关键问题定义
- Definition of Project Key Issues

项目中需要解决的关键问题包括以整合视角发现流程中痛点有哪些，造成问题出现的根本原因是什么，可以有效解决问题的手段是什么，以及如何平稳有效地推进新流程的导入等问题
Key issues to be solved in the project include finding out what pain points are in the process from an integrated perspective, what are the root causes of the problems, what are the effective solutions to the problems, and how to smoothly and effectively promote the introduction of new processes.

现有流程梳理
Current process Collation

流程诊断与评估
Process Diagnosis and Evaluation

流程优化
Process optimization