

ECOPLANT

IMPROVING PRODUCTION RELIABILITY AND EFFICIENCY
BY LEVERAGING
IOT & MACHINE LEARNING

利用物联网和机器学习提高生产的可靠性和效率

UTILITIES 公用事业前三为

ELECTRIC 电

WATER 水

GAS 天然气

AND THE 4TH UTILITY:

第四个是

COMPRESSED AIR

压缩空气

90%

OF PRODUCED PRODUCTS
CONTAIN COMPRESSED AIR!
的产品都含压缩空气!

1



2



3



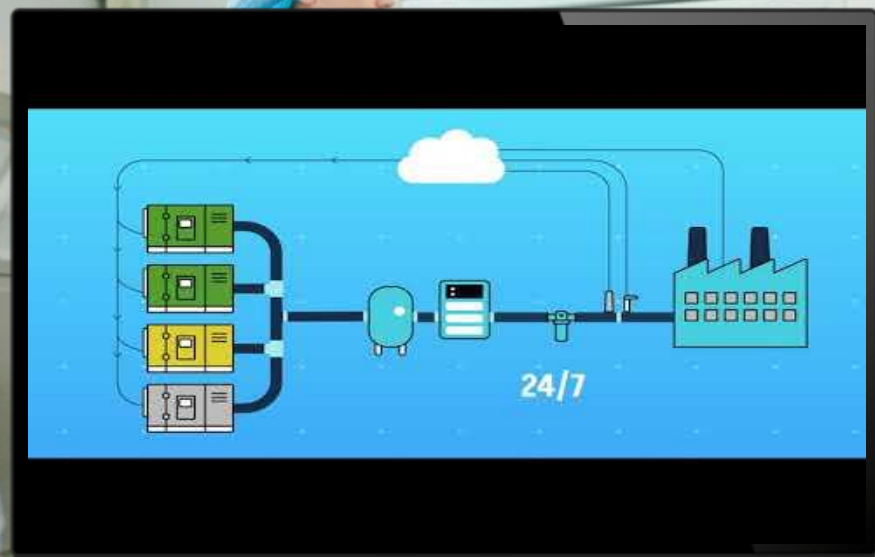
4



VIDEO

WE BRING MACHINE
INTELLIGENCE TO
COMPRESSED AIR

我们为压缩空气带入
机器智能



COMPRESSED AIR SYSTEM 压缩空气系统

BUSINESS OPPORTUNITIES 商业机会



CONTINUITY OF PRODUCTION

生产的延续

ELIMINATE UNPLANNED DOWNTIMES
排除非计划中的停机时间



ENERGY & CO₂ EFFICIENCY

能源和二氧化碳效率

STAY GREEN WITH MINIMAL ENERGY & CO₂ WASTE
保持绿色环保
最小的能源和二氧化碳消耗



MAINTENANCE OPTIMIZATION

优化维护

OPTIMIZED EQUIPMENT TREATMENTS & EXPENSES
优化设备维护和费用

ONGOING DYNAMIC OPTIMIZATION 持续的动态优化



\$100Ks

RISK REDUCTION ANNUALLY
每年降低风险



~ 50%

ENERGY WASTE / SAVINGS
减少能源浪费/节省费用



\$10Ks

MAINTENANCE SAVINGS ANNUALLY
每年节省维护成本

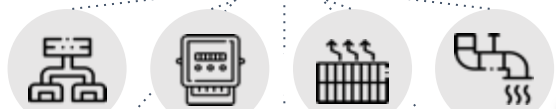
ECOPLANT - SOLUTION OVERVIEW 解决方案概览

SMARTENING YOUR ASSETS 将您的资产智能化



MANUFACTURING COMPANY

制造商



Flow
流量

Pressure
压力

Dryers
干燥机

Air Quality
空气质量



Ecobox



Ecobox



Ecobox

Compressors
压缩机

Compressors
压缩机

Compressors
压缩机

PROACTIVE CLOUD BASED
DYNAMIC CONTROL

基于云的主动动态控制



Machine Intelligence
机器智能

ECOPLANT 360



IOT Collection

物联网数据收集

Data Analysis and Dynamic Control

数据分析和动态控制

Visualization

可视性

ECOPLANT'S TOTAL VALUE DELIVERY 总价值交付

JOLIET, IL - MID SIZE DETERGENTS PLANT 洗涤剂厂

CUSTOMER EXAMPLE
客户实例

PRODUCTION RISK REDUCTION
降低生产风险



\$120K Value

Prevent Production Capacity Reduction
防止产能下降



Over 60

Critical Alerts
关键警报

\$293,000

EXPECTED ANNUAL VALUE
预期年价值

EFFICIENCY & SUSTAINABILITY IMPROVEMENT
提升效率和可持续性



\$52K
Leakage Reduction
减少泄漏



~17%
\$41K
Electrical Savings
节约用电



245T
CO₂
Reduced Carbon Dioxide (CO₂) Emissions
减少二氧化碳排放



>15%
Water consumption Improvements
改善耗水

EQUIPMENT & MAINTENANCE OPTIMIZATION
优化设备和维护



\$10K Value
Professional Consulting
专业咨询



\$50K Value
Infrastructure Optimization
基础设施优化



4 Quarterly Site audit 季度现场审计
\$20K Value



400 Hr
Professional Headcount savings
节省专业人员的工时



WHY 为何选择 ECOPLANT?

INDUSTRY 4.0 FULL SCALE SOLUTION

工业4.0 的全规模解决方案



How can an autonomous response be achieved? "Self-optimising"

如何能实现自主应对? 「自行优化」

What will happen? "Being prepared"

什么将会发生? 「预备」

Why is it happening? "Understanding"

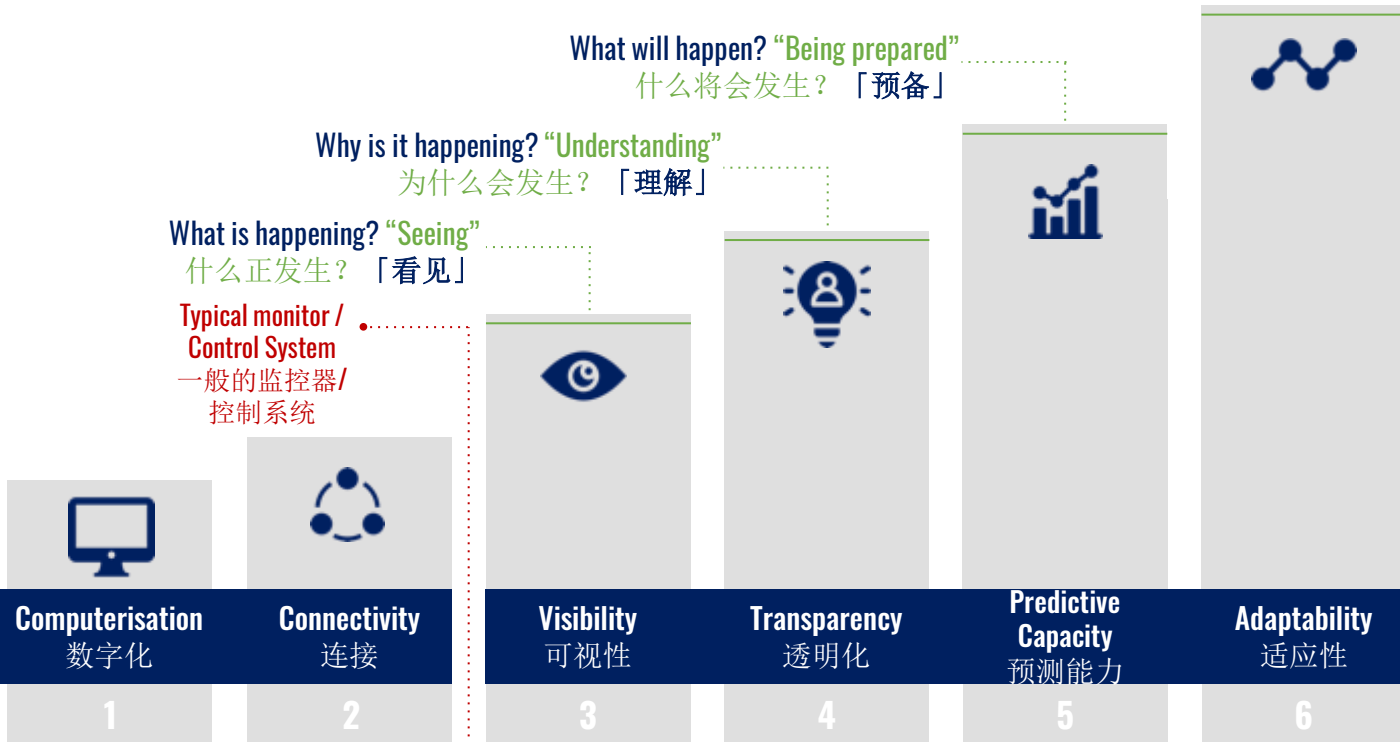
为什么会发生? 「理解」

What is happening? "Seeing"

什么正发生? 「看见」

Typical monitor /
Control System
一般的监控器/
控制系统

VALUE
价值



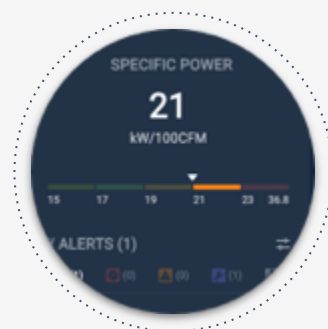
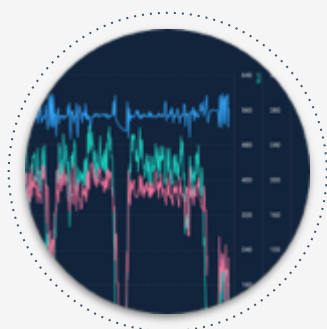
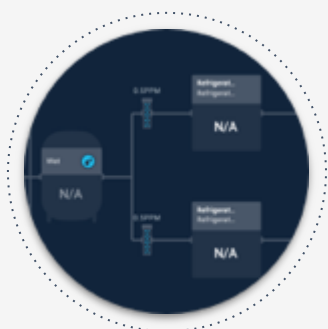
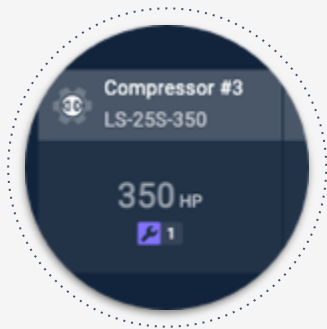
ONBOARDING PROCESS 启动流程

CUSTOMER DATA
COLLECTION
客户数据收集

INSTALLATION &
TRAINING
安装和培训

BASELINE AIR
STUDY
基线空气研究

DYNAMIC AUTO
OPTIMIZATION
动态自动优化



2-3 HOURS 小时

1-2 DAYS 天

2-3 WEEKS 周

ONGOING 持续

SUBSCRIPTION
订阅

CALCULATE MY SAVINGS
计算省下的费用



WHY 为何选择 ECOPLANT?



CASH FLOW POSITIVE ON DAY 1

从第一天起
现金流便为正数



PREVENT UNPLANNED DOWNTIME

防止非计划中的停机时间



REDUCE ENERGY COSTS

降低能源成本



FUTURE-PROOF YOUR CUSTOMER'S BUSINESS

使您客户的业务
对未来就绪

PROVIDE PEACE OF MIND 让人放心

NEXT STEPS 下一步

STRATEGIC PARTNERSHIP 战略伙伴关系

- PARTNER WITH A STRONG PLAYER IN REGION 与当地该领域的强势企业合作
 - DISTRIBUTION/INSTALL CAPABILITIES (PREFERED)
分销，倾向也有协助安装能力的伙伴
 - INVEST IN THE PARTNERSHIP 愿意在合作上进行投资

MANUFACTURING CORPORATES 制造业

- COMPRESSED AIR SOLUTION 压缩空气解决方案
 - >700HP TOTAL & >3 COMPRESSORS
整体超过700马力、大于3台压缩机
- LEVERAGE/THROUGH EXISTING ECOLAB PARTNERSHIP
利用/通过ECOLAB 现有的伙伴关系



EXECUTIVE TEAM 高管团队



Aviran Yaacov *Co Founder & CEO*
联合创始人和首席执行官
Entrepreneur, 15+ years of SaaS sales.
SAP alum, over \$2M ARR, Colman Exec
MBA



Yaron Harel *Co Founder & CTO*
联合创始人和首席技术官
Machine learning and AI expert, former
Head of Data at Iron Source



Gonen Dahan *COO 首席运营官*
15 Years experience in IoT and
TeleComm. products ex. Head of
Mission Critical IoT Motorola Solutions.



Avinoam Nowogrodski *Executive Dir. 执行董事*
20+ years of experience as a founder and
CEO. fund numerous successful companies,
specialising in SaaS businesses



Stephen Haan *GM of North America 北美总经理*
Former VP & General Manager F&B NA for
Ecolab. +20 years of experience in different
sales and management roles. BS in
Mechanical Eng. from Purdue University



THANK YOU 谢谢!

ECOPLANT 360

END TO END COMPRESSED AIR MANAGEMENT 端到端压缩空气管理

SUBSCRIPTION BASELINE (AIR STUDY & REPORT)

订阅基线（空气研究和报告）

- **Current Status Report** 当前状态报告
- **Saving Opportunity Analysis** 节约机会分析
- **Operational Fixes Recommendations** 修理操作建议
- **Leak Detection Report** 泄漏检测报告
- **Air Study Annual Savings Opportunity – Report**
空气研究年度节约机会 - 报告

STANDARD SENSOR PACKAGE INCLUDED

Sensor and Install:

标准传感器方案包含：传感器和安装

1 Flow
流量

1 Pressure
压力

Power (Per Compressor)
电源 (每台压缩机)

EcoBoxes (Per Compressor +1)
(每台压缩机再加一)

Router & Switch
路由器和交换机

CASH FLOW
POSITIVE
DAY 1

现金流在第1天
便为正

ZERO
UPFRONT COST
沒有前期成本

SUBSCRIPTION FEATURES 订阅功能

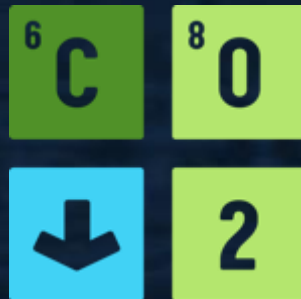
FEATURES INCLUDED 功能包括

- **Standard HW & sensor package**
标准硬件和传感器包
- **Value Dashboard** 价值仪表盘
- **Proactive Engine** 主动式引擎
- **Leak Projection** 泄漏预测
- **Production risk reduction** 降低生产风险
- **Alerts (Custom)** 警报（自定义）
- **Periodic reports & Trends**
定期报告和趋势
- **Predictive Maintenance** 预测性维护
- **Investigate** 调查
- **Expert Insights** 专家洞察

OPTIONAL FEATURES 选择性功能

- **Periodic Visits** 定期勘查
- **Air Quality (if applicable)**
空气质量（若适用）
- **Sensor Additions** 额外传感器添加
- **Valve Control** 阀门控制
- **Dryer Management** 干燥机管理
- **Multisite - Corporate Level**
多站点 - 公司层面

BY 2030, ECOPLANT DYNAMIC CONTROLS WILL REDUCE CO2 EMISSIONS IN MANUFACTURING PLANTS GLOBALLY BY
到2030年， ECOPLANT的动态控制会帮助全世界的制造业减少



1 MILLION Metric Tons

一百万公吨的二氧化碳排放量



120,000
homes' energy use for one year
12万个家庭一年的能源用量



16.5M
tree seedlings grown for 10 years
1650万棵树苗长10年

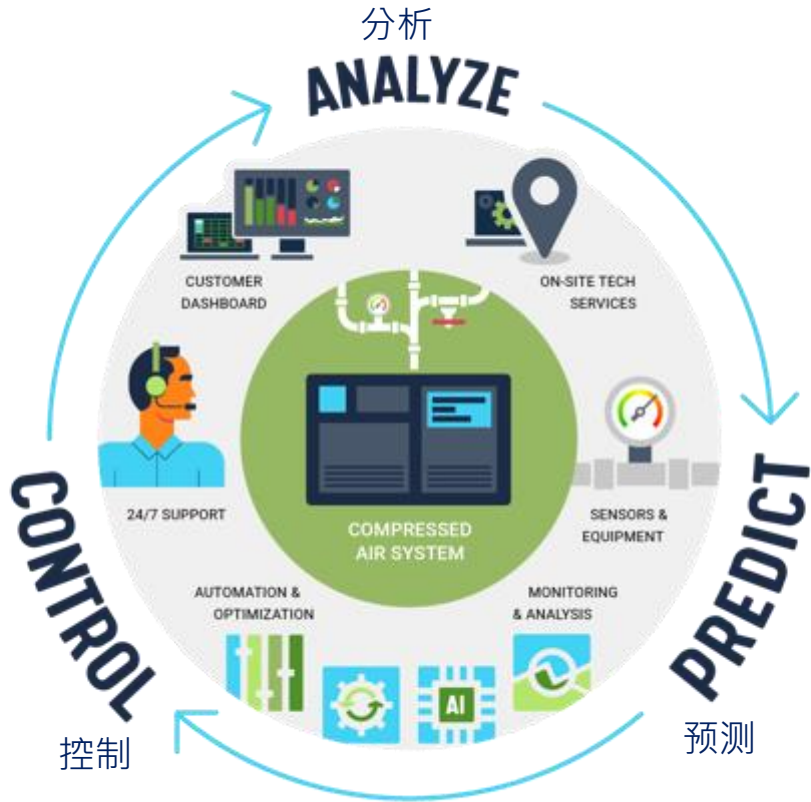


2.5B
Miles driven by an average passenger vehicle
一台行车里数为平均值之乘用车行驶**25**亿英里



CONTINUOUS VALUE DELIVERY 持续的价值交付

ECOPLANT 360 SOLUTION 解决方案



CONTINUOUS MONITORING

24/7 W/ UNLIMITED HISTORICAL DATA
全天候
加上无限历史数据



PREDICTIVE MAINTENANCE

FORECASTED FOR INDIVIDUAL AIR COMPRESSORS
预测性维护
对每一空气压缩机进行预测



DYNAMIC CONTROL

MACHINE LEARNING & DATA BENCHMARKS
动态控制
机器学习和数据基准



AUTOMATIC PRE-ALERTS

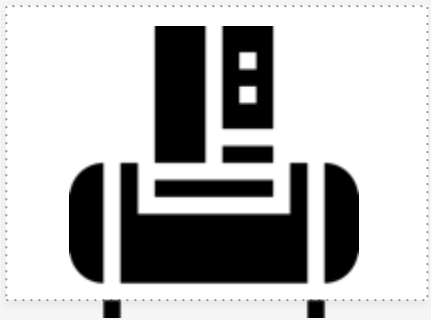
CONNECTED TO SERVICE PROVIDERS AND SITE MANAGERS
自动预先警报
提供给服务提供商和现场管理人员



COMPRESSED AIR SYSTEM - PROFILE 压缩空气系统条件

TARGET CRITERIA 目标标准

GO!!!! 可行



> *700HP TOTAL

总功率大于700马力

> 3 COMPRESSORS 超过3台压缩机

*AVG HP Per COMPRESSOR >150HP

每台压缩机的平均功率大于150马力

NO GO!!!! 不可行



<500HP 低于500马力

SMALL STATION 小厂房



WHY 为何选择 ECOPLANT?

HIGHLIGHTS 亮点



CASH FLOW POSITIVE DAY ONE

第一天现金流便为正



COMPRESSOR AGNOSTIC

所有压缩机种都适用



REAL TIME DYNAMIC

OPTIMIZATION 实时动态优化



ZERO DOWNTIME INSTALLATION

安装不需停机



RISK, ENERGY, MAINTENANCE

OPTIMIZATION 风险、能源、维护优化



ANYTIME ANYWHERE MONITORING &

CONTROL 随时随地监测和控制



CONTINUOUS IMPROVEMENTS AND

UPDATES - FUTURE PROOF

持续改进和更新 - 未来就绪

YOUR PEACE OF MIND 让人放心

ECOPLANT

OUR JOURNEY 历程

From idea to vision

从想法到愿景

The company was founded by entrepreneurs who come from field of compressed air and software development.

是由三位具有压缩空气和软件开发背景的创业家创立的

Monitoring only solution

仅能监测的解决方案



2016

2018

2019

2020

2021

First Pilot in Israel, Patent Protected

在以色列的第一个试点、技术有专利保护

The first installation at the Danone plant in Israel, participation in IBM's acceleration program
技术首个安装是在达能以色列的制造厂、参与IBM的加速计划

Introducing Dynamic Controller v1

推出动态控制器的第一个版本



US DOE recognition, Techstars

美国能源部认可、Techstars加速

First recognition in the US, got accepted to the US DOE Bird program. Participating at Techstars Farm to Fork '19 sponsored by Ecolab and Cargill

在美国首次获得认可，获选参与美以双边国家工业研究与开发能源计划。2019年也参加了由Ecolab和Cargill赞助的Techstars Farm to Fork 加速计划

US Deployments, TOP-30 Startup

美国市场部署、前30强初创企业

Penetration into the American market: installations at ECOLAB, Hillrom and other factories. EcoPlant was selected as one of the TOP-30 emerging startups of energy efficiency and IoT applications.
渗透美国市场：产品安装在ECOLAB、Hillrom等工厂。EcoPlant被选为能源效率和物联网应用领域的前30强新兴初创企业

"TOP-10 fastest growing IoT firms to watch in 2021". CIO VIEWS, May 2021

2021年5月受到CIO VIEWS杂志评为“前十大增长最快值得关注的物联网公司”



Ecolab / EcoPlant Reseller Partnership

经销商伙伴关系

Nalco Water sells the EcoPlant 360 solution to its customers

Nalco Water 向其客户销售

EcoPlant 360解决方案

Scaling EcoPlant system to 100s of clients

将EcoPlant系统扩展至100多个客户

