From New Technology
To Smart Business

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Smart Business – Digital Transformation 2.0

New Tech: Artificial Intelligence, Blockchain, Cloud
Reference Case #1 - GCL

About GCL:
- GCL-Poly Energy Holdings Limited is the largest supplier of polysilicon in China and in the world
- One of the top green energy suppliers in China

Industry:
- Solar cell manufacturing
- Green energy

Problem:
- Defect rate for the production of solar cells was extremely high, e.g. yield rate was low
- This resulted in unnecessarily high production costs

Results:
- Yield rate improved by 1%
- This directly led to an increase of millions of dollars in profit due to GCL's significant market share and production volume
Reference Case #2 - DunAn New Energy

About DunAn New Energy:

- DunAn New Energy specializes in the development, construction and operation of wind farms and photovoltaic power plants, as well as the R & D and manufacture of renewable energy.

Industry:

- Wind farms operation
- Photovoltaic power plants operation

Problem:

- When wind turbine failure occurs, DunAn has to shut down the production, resulting in lost production time and revenue.
- Wind turbines only underwent maintenance in event of failure, which resulted in maintenance complexity and high maintenance costs.

Results:

- By accurately predicting the fan’s high frequency harmonics, a potential generator failure can be detected and an alert generated up to two weeks in advance. This greatly improved the maintenance process and decreased the associated costs.
Results:

About ZC-Rubber:
- #1 tire manufacturer in China
- #10 tire manufacturer globally
- $3.4 billion in sales revenue in 2016

Industry:
- Tire manufacturer
- Rubber processing

Problem:
- The process for turning rubber into tires required extremely high fuel costs
- This in turn made production costs very high

Results:
- The accuracy of the Mooney viscosity metric increased by 14% (this accuracy is important in determining the quality of the end product)
- Rubber processing time decreased by 10%
- Production temperature decreased by 6%, which means less fuel is needed to power the production process
Reference Case #4 - Trina Solar

About Trina Solar:
- Trina Solar delivers PV products, applications and services to promote global sustainable development.
- Through 2016, Trina Solar accounting for more than 10 percent of global market share, this makes Trina Solar the largest solar module supplier in the world.

Industry:
- Solar module manufacturing and delivering

Problem:
- Defect rate for the production of solar module was extremely high, e.g. yield rate was low.
- This resulted in unnecessarily high production costs.

Results:
- **Yield rate of A improved by 7%**
- This directly led to an increase of millions of dollars in profit due to Trina Solar’s significant market share and production volume.
Reference Case #5- HENGYI

About HENGYI:

- Products mainly produced by Hengyi Petrochemical include: benzol, PX, PTA, MEG, CPL, PA6, PET chips bottle grade, PET chips super bright, PET chips semi dull, POY, FDY, PSF, DTY and Differential Fibers.

Industry:

- Petrochemical manufacturer

Problem:

- The coal consumption is high because of the burning rate of coal is low, it results in high fuel costs

Results:

- **Consumption of coal decreased by 3%**
- This directly led to an **decrease of millions of dollars in cost per year** due to HENGYI’s significant coal consumption volume
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Thank you

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