

# Bluence

*Enhance your profitability*

## O&M for PV Series: State-of-the-art monitoring, automation and data analytics

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by isotrol

# Global Technology provider

Main references worldwide, more than 35 countries



34 years experience.  
20 years Renewable



+ 250 people  
80% M. Sc

## 7 Offices

- Headquarter
- Local Office
- Project



+ 25 Gigawatts



- 35 Countries
- 1.523 Plants
- 778 SCADAS
- 24 Control Centers
- 16,2 Back up GW

## Main clients


# Bluence

*enhance your profitability*

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# Background

Past

## Business Evolution

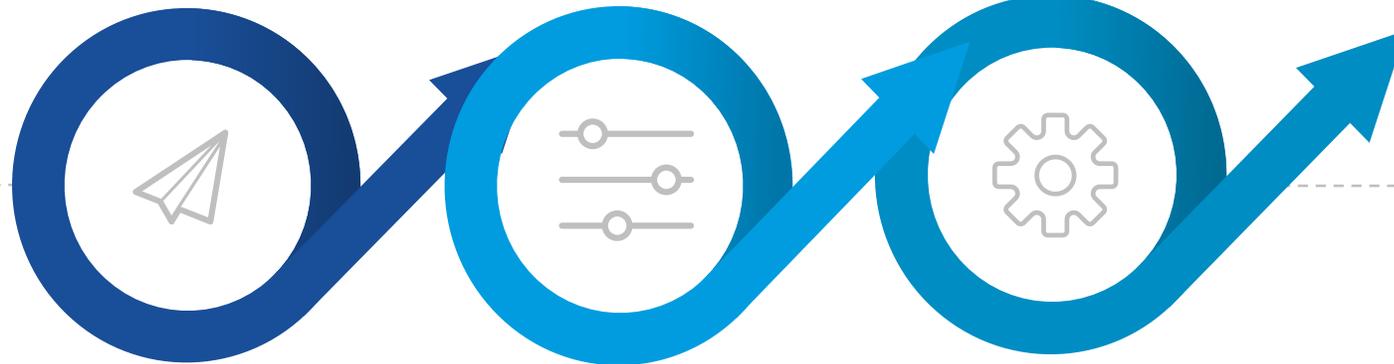
Grants for renewable penetration

## New metrics

Goal: Contractual KPI, availability

## Service & Tools

Low digitalization. Monitoring tool satisfy Business needs



Nowadays

Renewable participate at electricity wholesale market & regulation

Operational efficiency:

- Maximize production
- Minimize O&M cost
- Maximize wholesale incomes

New solution to satisfy business needs. **Services** to reach **Operational efficiency** at renewable assets.

## Business Evolution

## New Metrics

## Service & Tools

# Problems to solve



01

## Renewable Assets

Thousands of wind turbines, inverters, string boxes with millions of signals every few seconds

02

## SCADAs Systems

Local Scada without intelligence to detect and quantify early performance deviation

03

## Control Centers

Overview runtime portfolio KPI and assets details. Pending the task prioritization based on advance analytics.

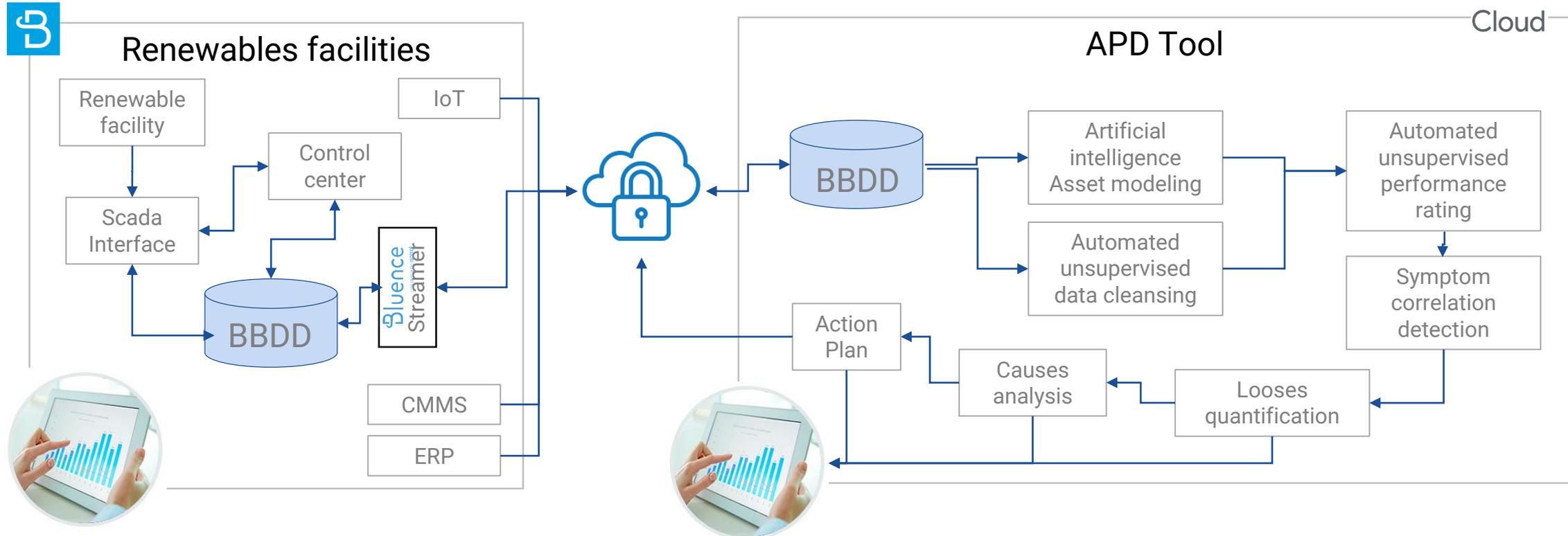
04

## Advance Service

Detect early deviation asset performance and take action for operational excellence

# Value proposal

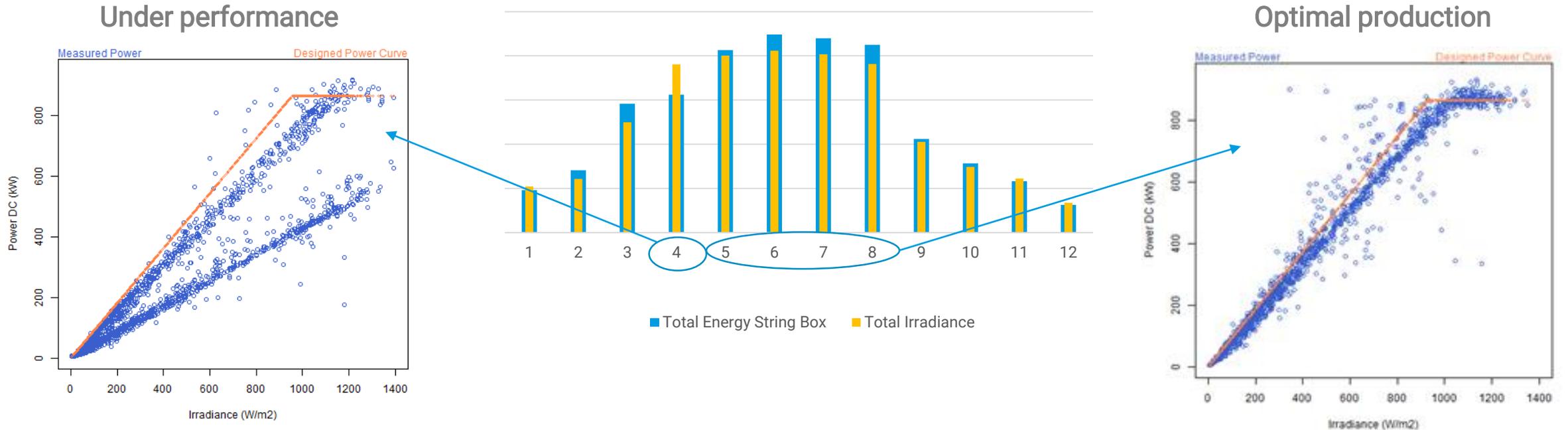
Asset Performance Diagnosis is Service for operational excellence of large renewable portfolios that automatically detect, quantify and contextualize main cause of non-optimal production of renewable energy asset portfolio.



# Case Study

APD detect under performance, identify cause and propose action for operational excellence

## Resource Vs Production



Bluence Performance Diagnosis Service  
The action increase 4% incomes

# Case Study

## BLUENCE PERFORMANCE DIGANOSIS SERVICE BENEFITS

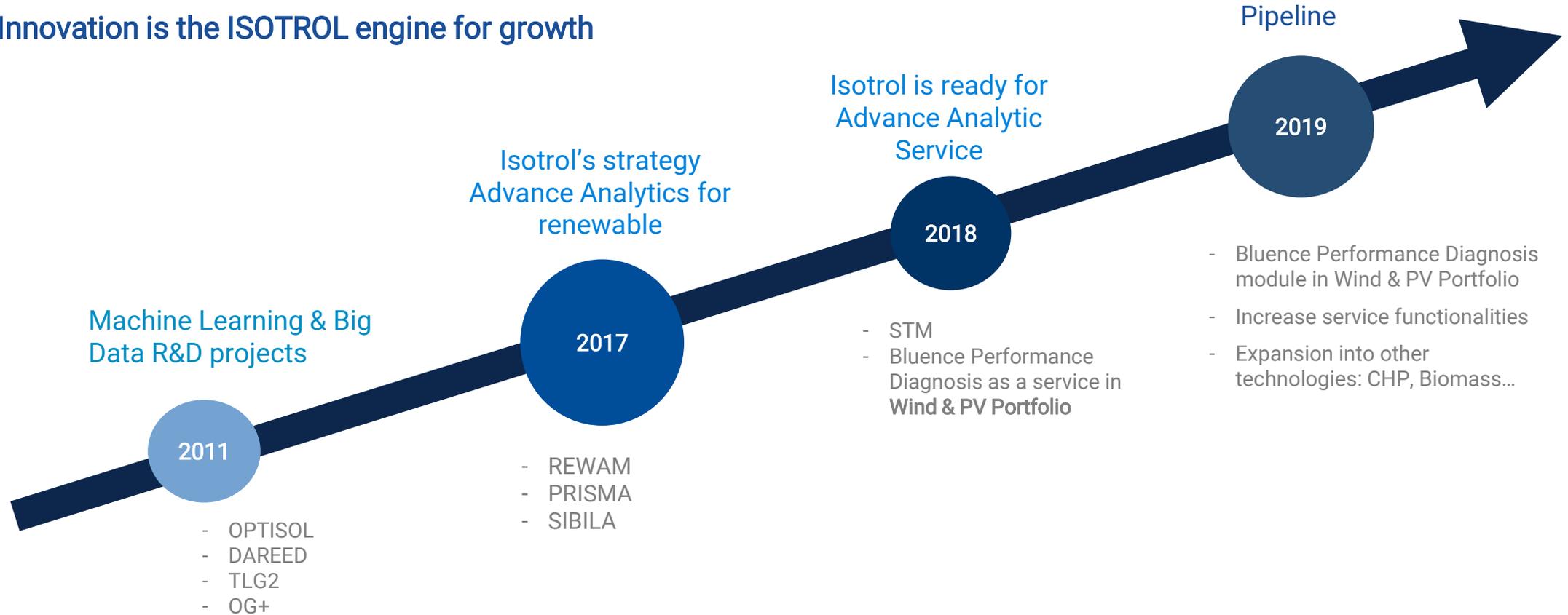
Re-scheduling Maintenance labor increase 4% income

	Production (GWh)	Total Incomes	Increase Revenues	% Increase Operational excellence
Before	16,1	€ 1.870.146	-	-
Thanks to Bludence Service	16,2	€ 1.940.485	€ 70.339	4%

# Isotrol's Timeline

From our past projects to 2019 pipeline

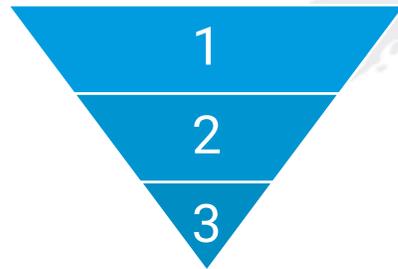
Innovation is the ISOTROL engine for growth



# Conclusion

Bluence Performance Diagnosis Service for operational excellence.

The Bluence Performance Diagnosis Services include:



1. Early detection & contextualization: subsystems degradation or malfunction
2. Performance Loss quantification
3. Action Plan

Bluence Performance Diagnosis References:



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WEBINAR

**State-of-the-art  
monitoring,  
automation and  
data analytics.**

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