

# MAKE OUR WORLD SMARTER



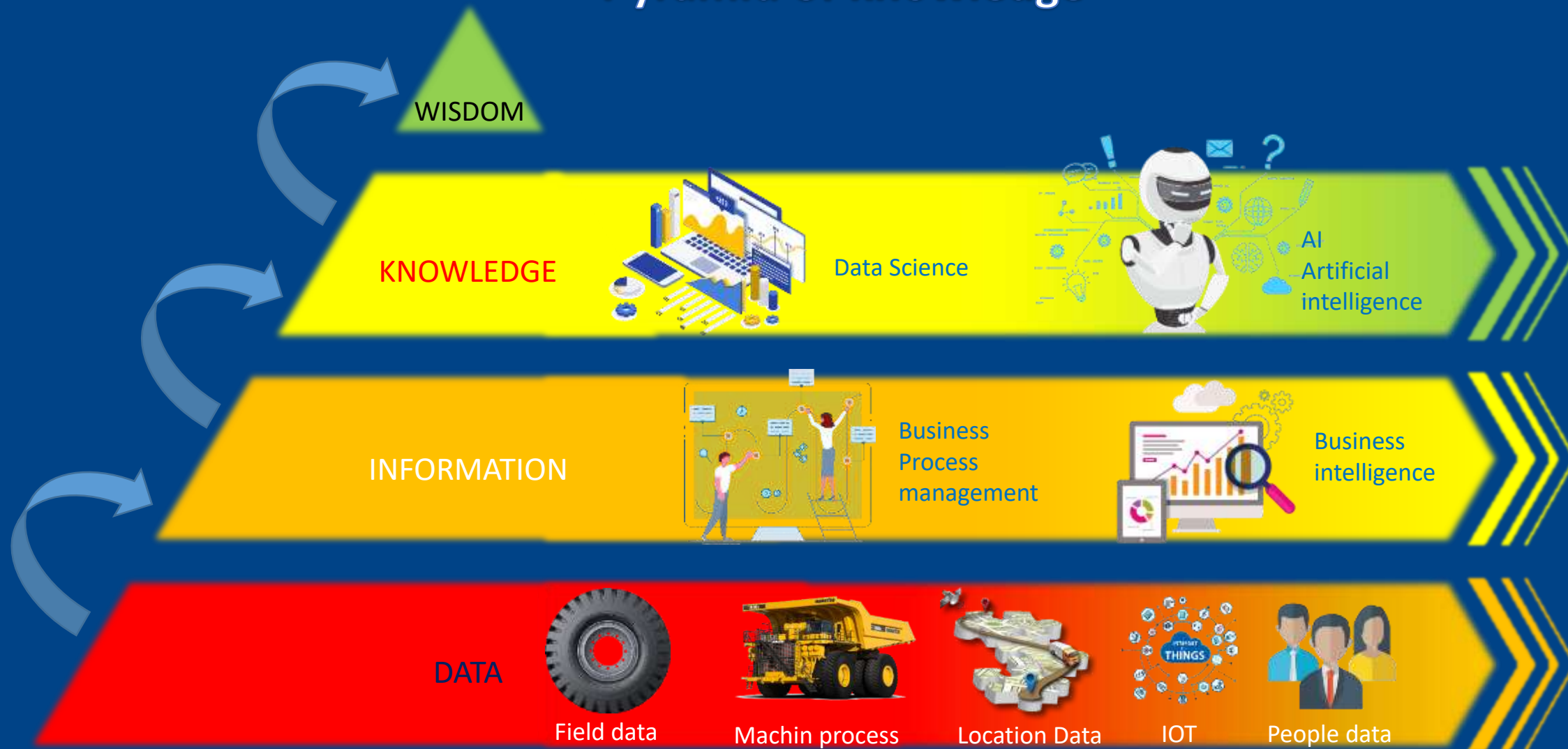
**CHASHMANDAZ**

Software Solutions provider

Digital Twin | Smart Industry | Industry 0.4 | Digital transformation



# Pyramid of knowledge

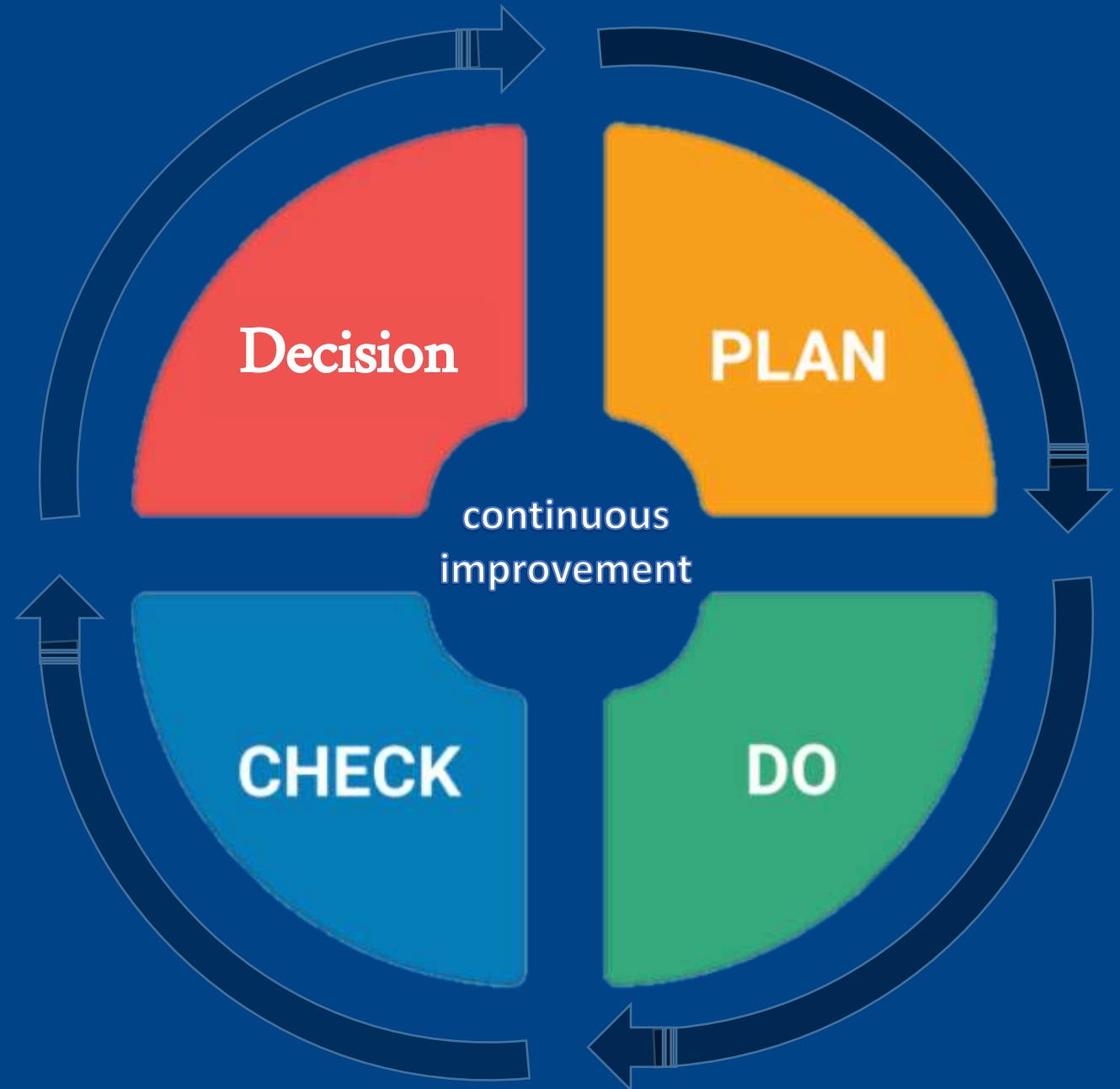




European Foundation for  
Quality Management

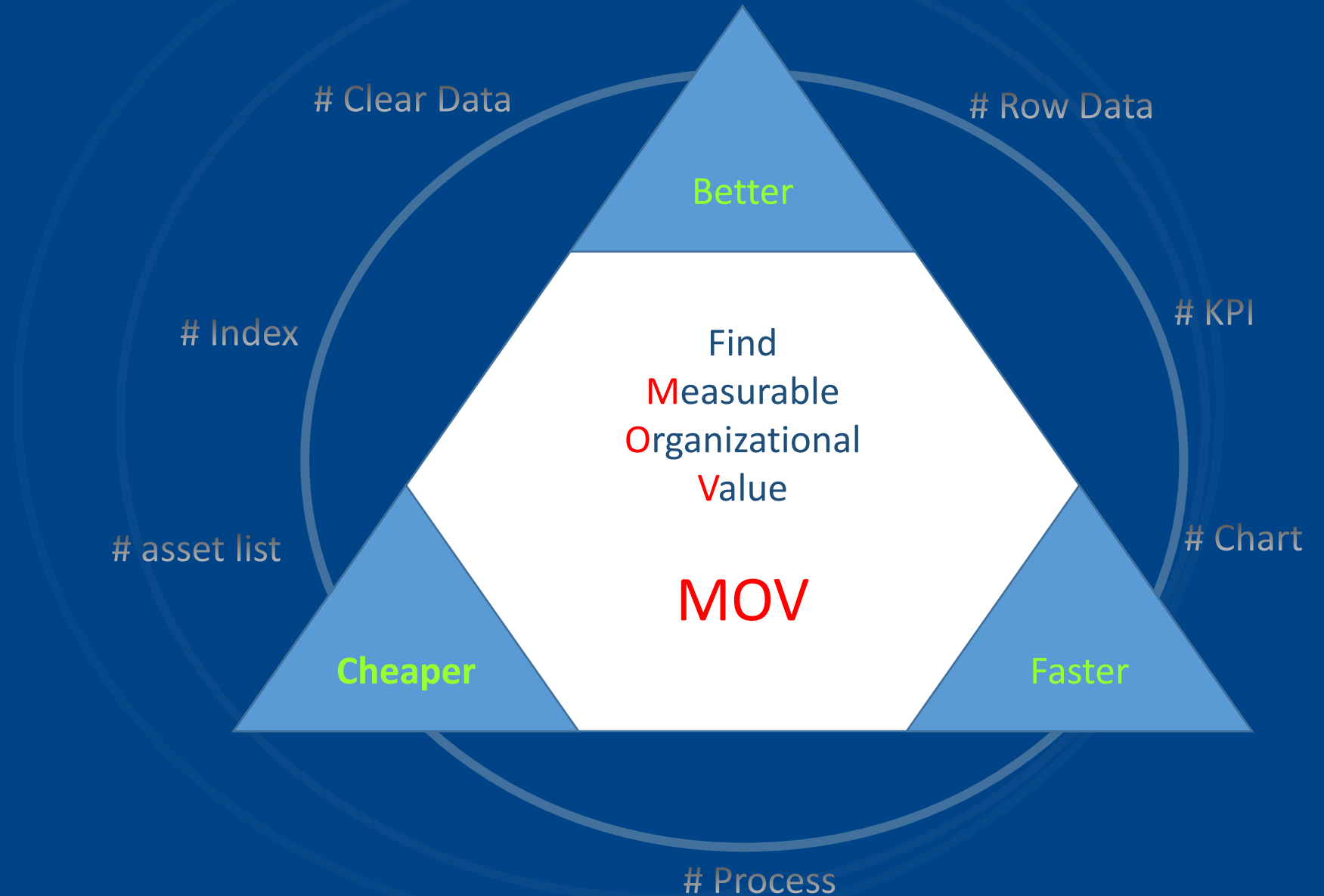
ISO

Quality management  
system





Get to Know  
your organization  
and  
your business  
carefully.  
that to plan for its  
future.





## Industry 4.0 Advantage

- **Personalized products**

Artificial intelligence  
machine learning  
Industrial Internet of Things  
and other parts of Cyber Physical systems  
help us personalize products to an individual  
but at the same time employ  
mass production techniques  
which is the most important benefit of the  
new industrial revolution.

- **Higher productivity and better efficiency**
- **Reduced costs**
- **Higher quality and better customer experience**
- **Increased profitability**







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# Digital Twin

In the digital twin mind model, we can simulate real objects or assets.

This simulation can involve different dimensions of the real world.

Like physical dimensions, input and output information and processing and even real-world states and behaviors can be present in this simulation.

Today, the capabilities of the digital world are evolving and expanding every day.

Now imagine what you can do with the digital twin model of your assets.

For example, in a production line, thousands of similar products are produced every day, which are similar in general features, but there are some features that make them different.

We can make twins for each of these products and assign their entire series to each.

We can get their information one by one whenever we want.

Who produced them?

What was the actual cost of production?

From which supplier did the raw materials come?

How much energy was used to produce it?

And anything you can imagine.

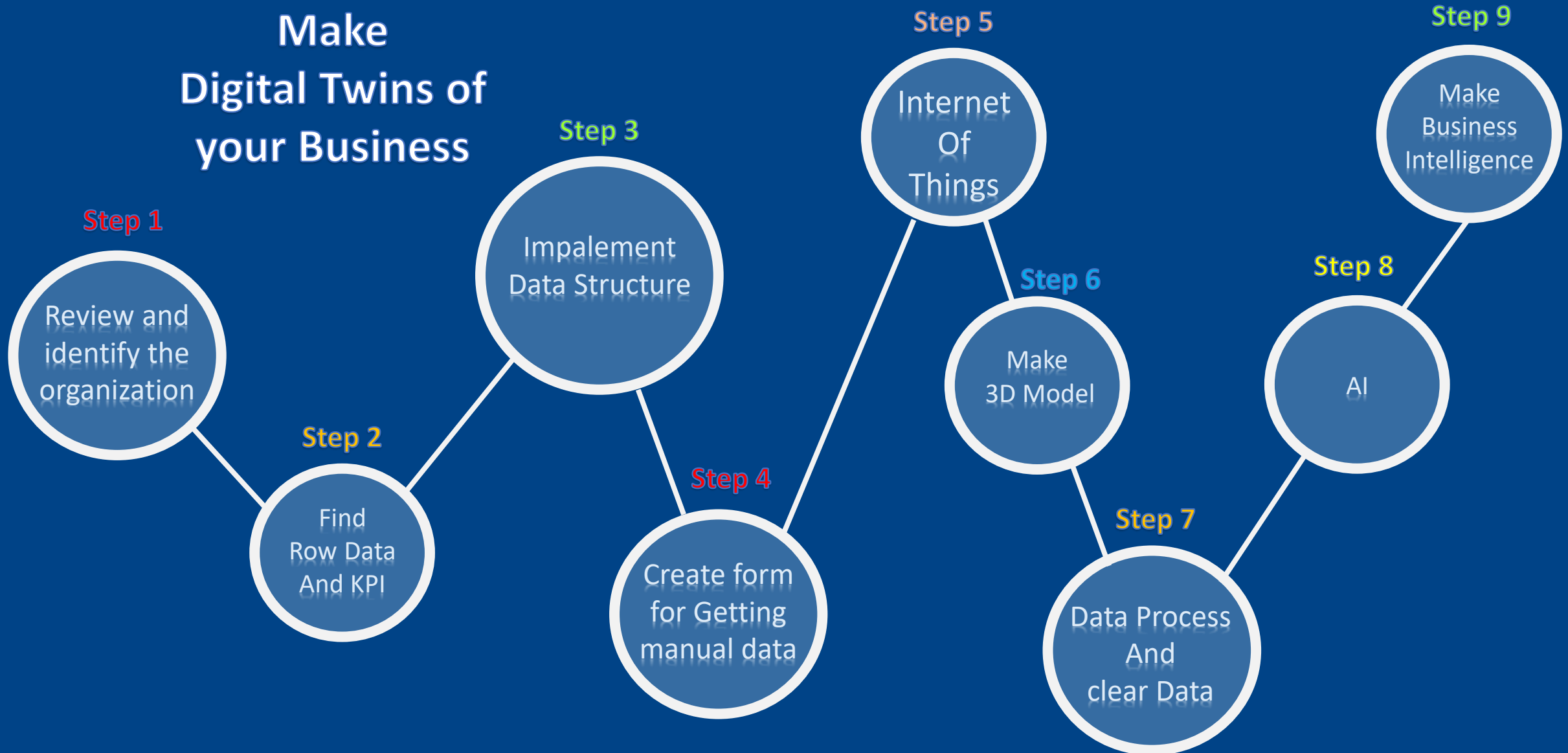
This was an example of a digital twin application.

We can use digital twins for industry management, repairs and maintenance, monitoring, simulation and thousands of other ideas.





# Make Digital Twins of your Business





# Make Digital Twins of your Business

## Step 1

### Review and identify the organization

- How the digital twins can help your organization to achieve its goals?
- Define your organization OMV.
- Define The benefits your organization gets from implementing digital twins.
- What changes should your organization be prepared to make after implementing Digital Twin?
- What accesses should be provided to the deployment team.
- define scope of the subjects and areas.

## Step 2

### Find Row Data And KPI

- Find all field data in your industry. (data layer)
- Find all KPI (key performance indicator). (information layer)
- Find all asset and its property.
- Sort and Clustering all data.
- Define priority for kind of data.
- Define long and short term process data.

## Step 3

### Implement Data Structure

- Prepare the hardware and software structure.
- Implement and Configure the data structure in system.
- Define all asset type and objects in the system.
- Import initial data for base asset.
- Review the data model with a real state.

## Step 4

### Create form for Getting manual data

- Create digital Form for to get all data.
- Prepare data import station for getting data from your organization.
- Training for people who they want to import data.





# Make Digital Twins of your Business

## Step 5

### Internet Of Things

- Find the device or process that ability to connect to IOT sensor.
- Get all IOT data and connect it to right asset.

## Step 6

### Make 3D Model

- make 3D model of asset.
- make 3D model of area.

## Step 7

### Data Process And clear Data

- Process all data and convert data to information.
- Make engine for each part of data process and store to data base.

## Step 8

### Artificial intelligence / AI

- Artificial intelligence can examine all the past and present conditions of your business in an instant and suggest the best decisions for you.

## Step 9

### Make Business Intelligence / BI

- See all your business conditions in one go in the charts.
- Create all the required charts and dashboards for each level of users.
- Teaching charts and how to use them properly.



pickup one asset to get all their history relevant data

