



**UNIMORE**  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA



Digital Automation Engineering

# Organizing for Digital Transformation

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# Digital transformation



How an organization uses the latest technological innovations to change, innovate and reinvent itself, rather than just improving on the traditional methods it currently uses, to create sustainable competitive advantage over its competitors.

Some elements for digital transformation:

- Think a strategy that creates competitive advantages
- People and a culture of innovation sustain these advantages
- Technology and communication are some of the means by which the competitive advantages are achieved

# Organizing for digital transformation

Digital transformation in organizations requires:

- Ingredient 1: a new technology
- Ingredient 2: to identify an opportunity of strategic improvement
- Ingredient 3: to cause significant changes in one or more of the following:
  - User experience
  - Processes and employees
  - Business model



- Why do?
  - understand the advantages, risks and motivation
- How to make?
  - awareness of trends, gathering information and speed of action
- What does it involve?
  - business model, structure, people, processes, IT capability, offerings (products and services), engagement model
- Which technologies are involved?
  - Mobile, social, cloud, big data, internet of things, cognitive computing, biometrics

# Some examples

**Digital patient monitoring:** a company (e.g., hospital) proposes a remote patient monitoring device.

The devices, which can be like wristwatches, will send information, such as temperature, pressure, blood measurement, and others, in real time to doctors.



**Detecting diseases in crops in real time:** mobile tool that allows identifying the disease that is affecting the plantations. It then suggests which product can treat the problem.

Farmers are able to defend their production much more quickly.

# Aim of the course

## Organizing for Digital Transformation

- To understand the mechanisms and competitive advantages of digital business models and decision support systems including the variety of industries to which it applies.
- To convert knowledge to decision-making criteria regarding the pro and cons of governance, business model choices, and strategic organization in the era of digital transformation.
- To use tools to evaluate different techniques for dealing with complex events in conditions of environmental uncertainty and volatility, interpreting and comparing the pros and cons of different available paths to solutions.
- To analyse the competitive advantages and evaluate how specific contexts may drive or deter successful projects of digital transformation.

# Exams

The exam comprises both practical and theoretical evaluations:

Group project	Theory
Exam 1 (50%)	Exam 2 (50%)

**Exam 1 (group project):** a case study to design a project-based intervention using the contents of the course.

**Exam 2 (theory):** final written examination on all the course program.

**Any questions, send an email to  
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