

# Future Ecom

## Interreg Europe



### ADAPTING TO A NEW WORKING WORLD

## The new ways of working—Digitally

With a revolution in working practices that has been forced on us by the enforced restriction of movement across the world there has never been a more important time to review the new ways we will have to work. Future Ecom has been looking at these over the past two years and we will be bringing you some of the ways that digital technologies can be embraced that have inspired us most.

This is the first of a series of four Newsletters that will, between them, cover digitization challenges in the whole of the Ecommerce process, from Innovation through to payment and future currencies. These will go out over the next three months, covering the period of time as we change the ways we work and face the ways in which they will change we work when are finally able to return to the new normal.

In this Newsletter we look at two projects aimed at helping businesses acquire the skills they need to use digital accelerators to run innovation at start up and then in manufacturing.

Future Ecom is funded by Interreg Europe with partners in 8 countries.



## Innovation and Digital Skills

*Every region in the EU is challenged by the coming transition in business as AI, the Internet of things and the connected world have the potential to change business significantly.*

*In the same way, every business is impacted by digital technology. It offers potential advantages in almost every part of the business process, from Innovation through to payment. And yet these advantages to be gained from uptake of digital technology are frequently not well understood.*

The approach of businesses is almost as diverse as the nature of the businesses themselves. In this diversity there are many who are still using IT for basic business functions and others who are leading the way in changing or developing their business models. The support offered by Focus Digital works across all these stages and provides a pathway to addressing the issues for all. It can be used to feed businesses in to other support projects as capacity improves.

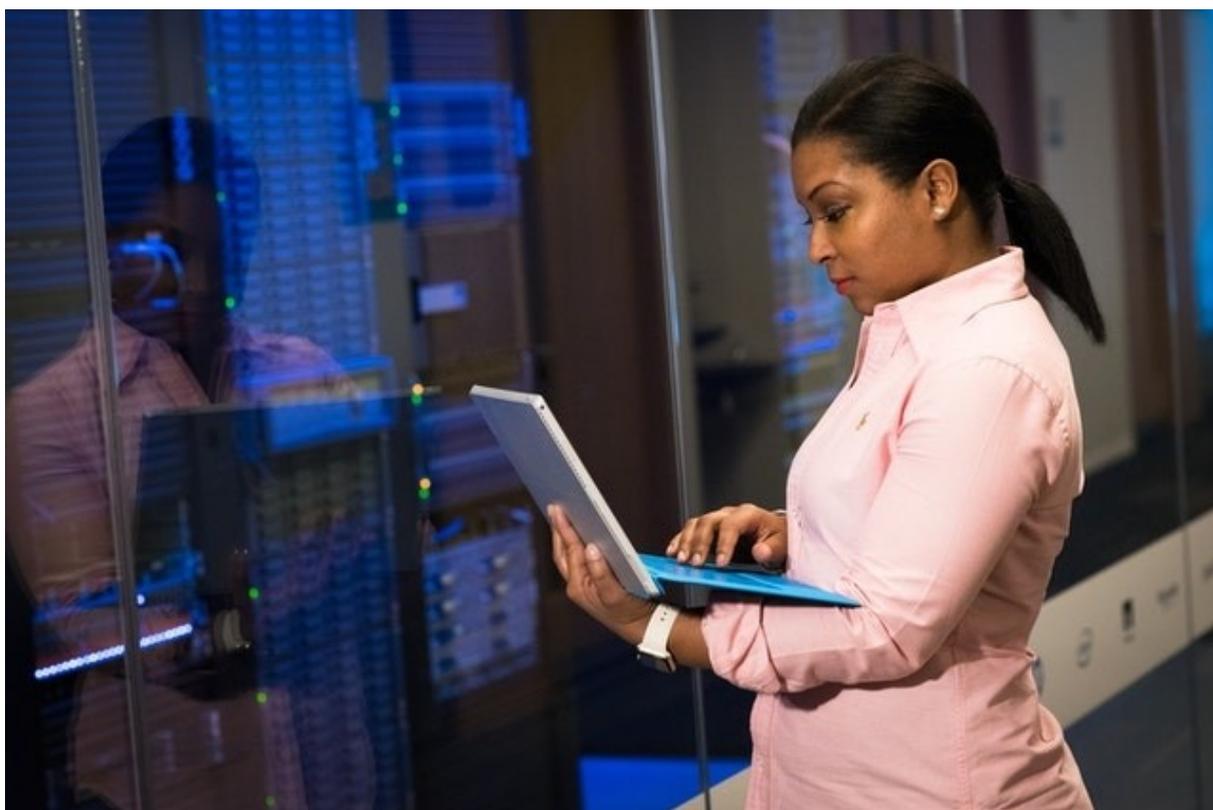
### Three Stages to Success

Focus Digital is a project set up in the UK to help businesses of all sizes get to grips with this challenge. The project has been set up to offer three stages of assistance, from first steps towards understanding how digital technologies through to adopting them in ways that can transform their potential.

#### Stage One

At stage One free workshops were offered to raise awareness and draw businesses into appropriate levels.

There has been a strong take up of the workshops. In particular workshops around engagement with the market have been built up based on client feedback and workshop uptake. These developed over time to include Web optimisation, image capture and usage, and Social media. Approximately 460 companies have been involved in these light touch interventions.



#### Stage 2

Stage Two was set up to provide tailored advice and respond to any query on improving IT infrastructure and competencies utilising a Graphic Designer, IT developer and IT technician. This were envisaged as a follow on for businesses who participated in the first stage and as a starting point for companies already aware of their options. This provides help to plan and gain the skills required to innovate. The second stage has provided direct one to one support to around 120 companies. It will provide more in the recent extension of the project which has recruited additional trainers with these skill sets.

## Stage Three

The final stage was designed to provide grants to companies seeking to innovate. This has included Augmented Reality design walk throughs, 3D modelling for architecture and apps for a number of practical business applications.

The third stage has helped around 130 companies and provided grants totalling £1.17m



Projects funded have included:

- Introducing a CRM system
- Purchase of CAD software & hardware
- Development of an automated web booking system
- Creating 360 degree images of proposed architectural developments
- Adding a client eLearning portal to an existing website
- Purchase of camera equipment for video and 3D work
- App to help engineers with the measurement of concrete and concrete flow in underground developments
- Purchase of a drone & Thermal Imaging equipment
- Augmented Reality walk through of new building designs
- Digital marketing to launch a new API service
- App for a mobile workforce to avoid reliance on the internet and wifi
- Development of bespoke Business Management Software

The ESIF strategy for Coventry and Warwickshire identifies digital competencies as one of the most important challenges the region faces. Action was needed to improve the IT engagement of businesses in the region. This response has proved very successful.

A policy which includes a support project like Focus Digital offers support in a way that any region can benefit from, whatever the stage of development in the region

# Digital Impact on Manufacturing

## Making things – smarter!

*Digitalization is associated with the 4th industrial revolution. In the near future, production processes, trade and services have to face massive changes. Smart production is the key. But what makes a product smart? Is it just another buzzword from marketeers - or some spooky „AI inside“?*

Digital technologies are advancing worldwide at high speed. More data is being generated by consumers, automatically analyzed and processed, changing soon the way we all work and communicate. Smart products are more and more used by companies to tailor production more closely to individual customer needs and to offer digital services for their products to improve the customer experience.

Smart Production in itself is a technological concept that uses machines connected via the Internet to monitor the production process. The goal of Smart Production is to advance the automation of manufacturing processes and use data analysis to improve production performance.

Hereby, smart Production is a specific application of the Industrial „Internet of Things“ (IoT or Industry 4.0) and turns IoT into reality. The implementation of Smart Production involves the integration of sensors into manufacturing machines to collect data on their operational status and performance.

Ideally, the networking of embedded production systems and dynamic business and engineering processes take place in a networked factory („Smart Factory“). It enables the profitable manufacture of products even for individual customer requirements up to „lot size 1“. In this context, this is also referred as mass customization (customer-specific mass production).

## **Smart factory - where it all happens**

At universities and research institutes, work is already being done on the Smart Factory within the framework of so-called „model factories“. The most important components and tools in a Smart Factory are: Cyber-physical systems (CPS), modern and efficient information and communication technology, big data technologies, embedded systems for controlling and monitoring the Smart Factory and the production process, services of Cloud Computing, flexible and intelligent logistics systems and wireless communication technologies such as Bluetooth or RFID (Radio Frequency Identification).



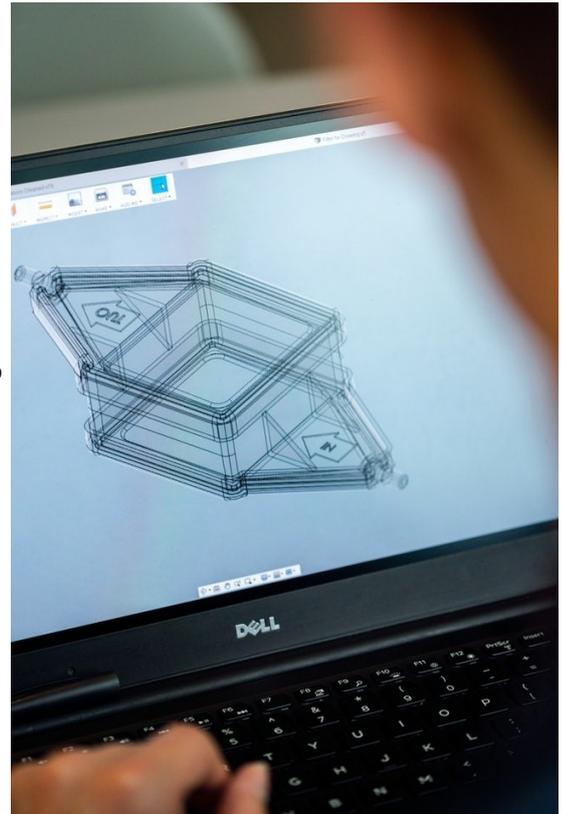
It is clear to see, that in the near future all these developments and new technologies create risks but also opportunities, especially for small and medium sized companies (SMEs). But how can SMEs recognize technological changes through digitization and react to them in good time?

### **SmartFactoryOWL - regional hotspot in Eastwestphalia-Lippe (OWL)**

In East Westphalia-Lippe the SmartFactoryOWL provides companies with an industry 4.0 testing-environment with which they can experimentally and practically initiate the switch to Smart Production. The SmartFactoryOWL is a joint research and demonstration factory of Fraunhofer IOSB-INA and the Technical University OWL. The GILDE works as associated network-partner to the smart factory and uses hereby the synergies from the interface of science, municipality and economy.

As economic developers the GILDE know that many companies need help in order to shape the first steps towards digitisation and to detect where the greatest potential lies. The Future Ecom Project helps the GILDE to determine the potentials for SMEs and to support companies in their entry into the digital age.

An example from the daily business may underline this support: In cooperation between the project representatives and the smart production experts several guided tours and qualification offers inside the SmartFactoryOWL were organised. Company representatives are introduced to the technologies of networked digitization and shown how future business models can emerge from it: From product development to production and networking. Here the future of production and work is already visible today.



### **Future Ecom - for SMEs in OWL**



The services of the SmartFactoryOWL offer a broad spectrum around the topic industry 4.0 and everything that is relevant for companies, their employees and their (future) customers. Even more, it is a certified industry 4.0 test environment: In this industrial environment prototypes can be developed and tested for use in production environments. This allows especially small and medium-sized companies in this region to be supported intensively, e.g. in projects lasting one to several weeks for the development of new products.

The experiences and feedbacks from companies prove that this cooperational concept enhances digitisation and automation in particular. In the future the GILDE will use the actions of the Future Ecom Project further on to convince that smart production is accessible and possible to use for small and medium sized companies.

## The Future Ecom Project

It is estimated that in 2020 B2B e-commerce in EU will be twice as large as B2C in terms of sales which proves a huge unreleased potential for EU SMEs. There is a risk of being surpassed by frontrunners as most SMEs have not even taken the first step in this direction.

Succeeding with B2B e-commerce requires a huge turnaround within a company's internal processes as this may scale up the turnover dramatically. Digitising and automating the internal processes of the SME is key to manage and keep up with the huge upscaling due to global e-commerce while ensuring the economic profit.

Creating a Digital Single Market (DSM) is one of the top ten priorities of the European Commission. The overall objective is to bring down barriers, regulatory or otherwise and unlock online opportunities in Europe to create one borderless market with harmonized legislation and rules for the benefit of businesses throughout Europe.

Future Ecom addresses policy makers and business support agencies across EU who need to fully understand the key barriers for SMEs to exploit and benefit from a global internet driven market place in general and enhance digitisation and automation in particular. This is done by the exchange of experiences and good practices across 8 EU regions in Future Ecom initiatives will improve the impact from the regional policy instruments addressed by the Future Ecom partners and the results will be disseminated across EU.



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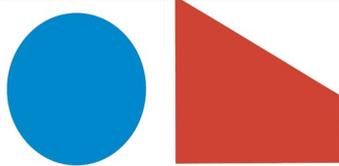


**The Future Ecom Partnership**

**Business Association of Santarem, Portugal**



**North Denmark Region, Denmark**



**GILDE**

**Business and Innovation Centre, Lippe-Detmold, Germany**

**Coventry University Enterprises Ltd, UK**



**Chamber of Magnesia, Greece**

**Cursor Oy, Finland**



**Lithuanian Innovation Centre, Lithuania**

**The Regional Council of Kymenlaakso, Finland**

