



Past - Present - Future



# CULTURE-FOCUSED EVENTS IMPROVING LABOUR-MARKET IN INDUSTRIAL REGIONS

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Concept Paper

Version 2  
09 2017

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T3.4.5



Reporting Period 2



PP 10, Stebo



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# 1. Introduction

The concept takes the form of a blue-print for a one day ‘meet and greet’ of companies facing industrial transformations and (unemployed) potential future employees. The job event will explicitly challenge cultural prejudices on the sides of the work force as well as companies - both facing the transforming industrial society. Sufficient attention is paid to the preparatory and follow-up phase.

The jobevent relates to a specific thematic result indicator (defined for T3.4.6: implementation) stating 12 FTE will be created. This corresponds to ca. 3 job matches per involved region. Since the industrial environment and demands are not the same in the four participating regions, all aspects are designed in close reference to the local context (Industry4.0 environment, companies and potential future employees). Indeed, the blueprint is conceived in such a way that it is applicable in all (partner) regions. For that purpose all steps and ideas are firstly described in a general way, and then supplemented with information on the methodology that will be applied in the specific context of the industrial region of Limburg by Stebo. The latter descriptions are grouped in separate ‘Case Boxes’.

## 2. Context development

### 2.1 The Industry4.0 environment

The underlying issue for all InduCult2.0 regions is the image problem the industrial sector is currently facing. The sector is transforming very rapidly. That transition is also recognizable in the types of available jobs. Indeed, the job content and responsibilities are equally changing.

As a result the connection between the industrial sector and the labour market is not as evident as it has been before. The match between employer and employees is at stake. According to the regional context different reasons for this ‘mismatch’ are possible. Partners should therefore firstly define that context.

Questions:

- What are the current trends in the industrial sector in your region? Has it already completely transformed into an Industry4.0 environment or is it looking for opportunities?
- What is the exact purpose of the jobevent? Why do you deem it necessary to organize it?
- Are there any cultural prejudices responsible for the ‘mismatch’? Do they exist on the side of the work force or the companies, or on both sides? Sufficient time has to be devoted to define and counteract this parameter. If these prejudices are not clarified, they will be a serious obstacle for organizing the ‘meet and greet’.

E.g.

- a) The jobevent is organized **to counter braindrain**. Higher educated people leave the region to go and work in urban areas.

In this case cultural prejudices are often mostly defined at the level of the potential work force.

Higher educated people are convinced that industries in their home region cannot provide interesting and challenging jobs. They are more attracted to urban areas where (in their opinion) creative industries, digitalization and new technologies are emerging and evolving at a much faster rate. Local manufacturing companies are considered as conservative and lacking dynamics.

- b) The jobevent is organized **to counter** the complaints of companies stating that they cannot find enough high educated workers to fill their positions. It is about highly skilled graduate

students and postdocs who struggle to land positions in industry - or about **differences in culture between academia and industry**<sup>1</sup>.

In this case cultural prejudices exist mostly on the side of the companies:

- In an industrial company all employees work towards the same goal, each team member is a specific chain in the production system. Academic employees are in their opinion not real team players (each has its own research topic, objectives and parameters and/or cannot embrace shared goals).

- Graduate students or postdocs are immersed in an academic culture, spending years in an environment dedicated to pure research. According to companies they often fit perfectly with the technical needs, but do not have the right attitude to score high on behavioral interview questions.

c) The job event is organized **to find a match between industrial employers and people with a generally lower education degree.**

In this case the current transformation into an Industry4.0 based production- and value system has often created cultural prejudices on the side of companies and the work force:

- **companies** have revised their expectations of what a 'good employee' should respond to. A new and value-based profile was defined which future employees should live up to in order to get hired. At the same time companies are convinced that such employees can only be found outside the region or with higher educated people ("blue-collar competences are no longer needed in an Industry4.0 environment").

Any communication is therefore directed to this exterior target group and consequently set up in a new and quite inaccessible jargon, and does not reach any of the potential present in local groups.

- **potential employees** have been brought up with the 'old-fashioned' values of the manufacturing industries in mind (loyalty, solidarity,...). Additionally they often live in underprivileged regions, with specific cultural expressions and organizations which stem from its all-defining industrial history. These employees have the feeling that their value system is not seen as an asset by today's companies. This is directly affecting their identity.

Additionally they did not adapt to the latest industrial transformation processes (e.g. sharing economy, product-service related business models, ...) and do not have an intermediate person who can guide them in creating the attitude that is demanded by current employees. Consequently they are not able to identify nor recognize themselves in the new profile that has been set up. As such it becomes difficult for them to see personal opportunities within the Industrial 4.0. context. They are often neglected in their job search leading to low self-esteem and defeatism.

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<sup>1</sup> ['Behavior in an Industrial Culture: Not Everything, But Maybe the Main Thing'](#) (Dr. J. Sostaric, The Graduate and Postdoctoral Scholars Office of the American Chemical Society).

### Case: The Limburg region (Belgium)

*The history of the province of Limburg is characterized by industry. The industrial episodes have intensively shaped the identity and culture of the region.*

*Most important employing companies were always situated in the manufacturing industries (Mining companies until the '80s, followed by Ford and Philips factories. Currently the industrial environment is in transition again. Service related industries as well as circular and sharing economy (for more information see Annex 1) are coming up at a major speed, and are challenging the traditional manufacturing industries. In Limburg (and the rest of Europe, as studies ordered by the European Commission state) the transition manifests itself in the growth and increasing application of innovative technologies/digitalization, energy-efficiency, and a circular/sustainable oriented production system and value chain.*

*This transition is coupled with a focus and attitude change. New competencies, entrepreneurship and immediately cashing of opportunities are starting to become the new values. The current industrial landscape is however populated and shaped by inhabitants with still a strong connection to the manufacturing industries. As result, there is a strong mismatch between on the hand the current manufacturing companies - who have jumped on the Industry4.0 train in order to sustain its future profits, and on the other the unemployed blue-collar workers as well as the youngsters - who are not attracted to go and work in the factories of the future. In many cases cultural prejudices are playing an important role in this mismatch as well (e.g. lower education is equaled with bad working attitude).*

*In other words, what we see is a mismatch between two profiles, two 'industrial cultures' that are in fact strengthening each other. Indeed today's potential employees have made up their own (life-)stories and during that process have created a number of talents which could be valorized within modern companies. Employers in turn are not able to recognize the potential of young people and as such not familiarized with their identity and values. The missing link is a process that connects the two, sorting out the prejudices that are still very much alive at both sides. While matching talents and values a new profile can be welcomed into the companies which is rooted in the past -, has a close connection to the present - and gives way to the development of a future industrial culture , which in turn can be used as a tool to strengthen the regional ties of the companies.*

*It is moreover a clear fact that the competences, mentality and culture of these blue-collar workers (and their children) can contribute a lot to the industrial transition and that they can be translated into new job profiles. The community feeling and solidarity, e.g. that is present in the blue-collar milieu is a perfect condition for developing sharing economies. While the fixing attitude (finding solutions when things are broken) is a competence/skill that is very useful in a circular way of working (fixing electrical appliances, dismantling of products in order to re-use the parts, sorting of materials,...).*

*Stebo will thus organize the job event because it is convinced of the fact that blue-collar workers do have a place in the Industry4.0 environment, and that their competences and values can convince companies to integrate them in their skilled staff. Focusing on Industrial Culture - in this case meaning individual talents, a loyal mentality, attitude and hands-on competences - when defining new job profiles and education programs could mean a step forward in attracting and respecting these labour forces.*

*The job event will be the perfect opportunity to convince both the companies and future employers of these opportunities, to bring them closer together, and to get any cultural prejudices from both sides out of the air.*

## 2.2 Needs of the employers

Most companies in the Industry4.0 environment are facing the fact that changing technologies, production systems and business models have induced the appearance of new competencies. Sometimes these are even clearly linked to a certain type of industrial sector (e.g. automotive industry, waste-management,...). In the latter case the search for particular profiles becomes even more specific.

Questions:

- What issues are employers in your region facing today?
- Is the entire industrial community facing the same questions or do they differ from sector to sector?

E.g.:

a) Companies are no longer able to fill the applications for new jobs because they require high-level skills (taught at university level (e.g. engineering)) which are not present in the region anymore.

b) Companies are facing problems in finding a good balance of employees that are able to perform the new tasks connected to Industry4.0. Indeed, often both high education profiles and blue-collar skills are necessary in the factory of the future. These new competencies moreover are often not yet clearly defined or translated into proper education programmes.

### Case: Waste-management at Houthalen

*The municipality of Houthalen is renowned for holding several companies involved in waste management. In the past waste was managed according to the principles of linear industry which sees raw material as finite products. Focus was on finding ways to reduce the amount of waste. Today the companies are transforming towards the circular industry and its value chain, and therefore to finding smart solutions to use waste as raw material itself. This implies involvement and investments in new topics as circular economy, urban mining, upcycling, cleantech, plasma technology,...*

*But it involves a very radical change in production methods as well. The companies are currently searching on translating these elements into new job profiles and competences and in finding people that correspond to them. They are looking for cooperation with schools and other training institutes in developing new courses to guarantee a constant stream of labour forces that are adapted to the Industry4.0 developments. An additional issue is the fact that working in the waste-industry is still conceived as a 'dirty job'. The companies need to overcome this image problem as well.*

*Stebo will work in close cooperation with the municipality of Houthalen and the jobcoaching organisations in order to answer these questions. It will allow the Houthalen companies involved in waste management to present themselves and their demanded profiles during the jobevent.*

## 2.3 Needs of the potential employees

Values and attitudes towards work opportunities have drastically changed the last one or two decennia. The concept of job hoppers has become the new standard since young people are looking for constant new challenges instead of working for the same employer their entire life. This holds mostly true for youngsters with a high education degree.

At the same time Industry4.0 is coupled with a flexible labour market offering a low level of security (short term contracts, gig economy, lack of stability,...). It involves a changing mindset as well. Employees want to earn easy and fast money, on the spot, without having to go through long and intensive studies or training sessions.

A third category of potential employees is defined as 'NEET': Not in Education, Employment or Training. In many cases this is coupled with a low registration number for training programmes and competence development courses. If the job event targets these youngsters, a thorough preparation phase is implied.

Questions:

- What kind of target group do you want to reach in your region (one or several of the above?)?
- What are their needs? Do they want to be constantly challenged or do they want to earn 'easy' money?
- Are there any partners/training concepts that respond to this needs and that can be presented during the event?

### Case: Inhabitants of the Limburg mining region

*Today a large part of Limburg is inhabited by people who were brought up against the décor of the traditional manufacturing industries (e.g. ex-miners who after the closure of the mines were employed in other industrial sectors). The blue-collar attitude (loyal, hardworking labour class) is still strongly represented here. In many cases the children are brought up with this mentality and have not enjoyed high education. Often they are responding to the NEET definition, that wants to earn easy and fast money. This is coupled with a very high degree of school dropouts. The young people do not have the feeling that they fit in, and are not actively looking for a job since they are of the opinion that they will not be selected anyway. This results in low self-esteem, poor job interview skills and of course unemployment.*

*Vocational training institutions have noticed this in the fact that the traditional training courses, are not reaching the young people. Policy makers and coaching organizations are currently working on finding solutions for this.*

*Changing the strategy of 'Train & Place' towards 'Place and Train' is one of the possibilities that have been developed. It centralizes a learning process that takes place on the spot at the workplace (working and learning is combined) and is coupled with a minimum wage. As such youngsters earn money while learning and are less tempted to dropout.*

*Another idea is to design a trajectory in which youngsters are gradually integrated in a working environment, offering the possibility to explore, learn and gain confidence (e.g. company visits followed by experience internships,...).*

*E.g.: Industria is a project offering unemployed people with an opportunity to gain working experience, to get acquainted with technical competences, develop a proper working attitude and at the same time getting a degree. They receive personal guidance in which the connection between personal talents, required skills and future perspectives are being connected.*

*Stebo is a grassroots organization with a lot of experience in the mining region. It will actively engage its inhabitants while setting up a profile and defining the needs of its young and/or unemployed population. But Stebo will invite the coaching organizations to participate in the job event as well. They can introduce the new strategies they have developed and should be appealing since they overcome some of the problems the youngsters are currently facing.*

### 3. General event concept

#### 3.1 Format

Once the industrial context has been defined a strategy for the job event can be designed. It is crucial to define the format you use since it has to be able to attract both companies and future employees - and above all to create a dynamic 'meet and greet'. One that makes youngsters enthusiastic to go and work in an Industry4.0 environment, and one that convinces companies of the potential and talents that are present in the region.

A general principle of the InduCult2.0 job event(s), regardless of the region it takes place in, is the fact that it has predefined participants. It is not a 'classic' or 'sectoral' event. Indeed, instead of organizing it as a massive labour market where all possible employers and unemployed are present, it has a **smaller scale** (number of participants, location,...). It might focus on one or two sectors (e.g. construction industry, engineering,...).

The event is about **face to face conversations** between youngsters and companies. The unemployed people take up the place the employer usually has, and it is the employer who circulates from conversation to conversation. As such the future employee has the chance to speak and announce its own motivations, wishes, specific qualities and possibilities. Contrary to an ordinary job event focus is not simply on filling open vacancies. It rather aims at finding a 'click' between values and talents, and to find out in what way they can strengthen each other. In other words: getting acquainted with each other's offers and questions. The personal story of the 'candidates' is centralized while also the demands of Industry 4.0. are explained in a language that is understandable to them.

The event serves an **integral approach**. It brings together companies, unemployed people and organizations involved in job coaching, education, job applications, social work,...As such both companies and future employees get an insight on the tools that have already been developed to meet each other's need (place and train, training on specific competences, legal advice, alternative workflow experiences, internships,...). Such an integral approach should involve a broad network of organizations representing different sectors.

Apart from setting the content and format of the event, one has to spend sufficient time on the practical set-up and communication.

- For communication this means sending out invitations, mailings, printed media and documentation on the event to a broad (=integral) yet specific network. It should communicate solely on the purpose of the event.
- Making up a good storyboard (time devoted to each conversation, matching of companies and certain candidates, circulation,...) in advance and spending enough time on thinking about the set-up of available space (where to locate information area, 'meeting' tables, presentation equipment,...) is evenly crucial.
- Create evaluation instruments to grasp the learnings from each participant.



### Case: Job event Houthalen

#### **Face to face conversations:**

- Companies involved in waste management (and by extension other types of circular economy) are targeted, as well as unemployed inhabitants of the Meulenberg garden city.
- There is a specific selection of future employees that is done during the preparation phase (see below). The event centralizes people that need extra guidance in their job search. They are motivated but suffer from low self-esteem and do not yet have a clear image of the type of job they would like to apply for and/or of their competences and talents.

#### **Speed date:**

Each conversation between a previously selected company and a matching potential employee takes 10 minutes. 2 à 3 speed dates per participant are considered feasible. If there is a mutual positive feeling, a follow-up meeting is scheduled for discussing the job possibilities and format. Employers are asked to give 'personal' feedback (both positive and negative) so a maximal learning experience is obtained.

Evaluation/registration forms are handed out, to be used during the conversation and to organize follow-up meetings.

#### **Integral:**

Focus of the job event of course is on the employers and employees. However some relevant intermediate players will also be present. Vocational training institutions, education and social welfare organizations, as well as the (temporary) employment agency(ies) will be invited to present their offer. If a match is not found, the participant will at least have had the chance to look for other opportunities. Focus is on organizations working on competence development and attitude/value shifts that came along with the general technological Industry4.0 transformation.

## 3.2 Preparation trajectory

A thorough preparation is an important precondition for a successful job event.

The target audience should be selected in advance, if possible already in that degree that individual companies and unemployed people have been personally addressed. As such possible matches are predefined which maximizes the chance of 'success'.

Selecting candidates means setting up a parallel supporting trajectory, both for the companies and for the people in search of a job.

- A considerable part of this trajectory is directed towards developing a tool/methodology/..., where employees and employers get acquainted with the generally changing situation on the other side of the table. It has to define the cultural prejudices of the companies towards potential employees and visa versa, in order to reach a mutual understanding of each other's expectations and ambitions. As such these 'issues' can be freely and discussed during the face to face conversations, and any reserves that might still exist can be clarified.

- Supporting companies amongst others means helping them in defining what job profiles they exactly search for, what competences are needed to fulfill them and whether or not the necessary training programmes are already available to teach these skills. It also involves 'rebranding' or 'demystifying' the competence profiles and job vacancies by re-authoring their communication into a language that is accessible to the local potential.

- Unemployed people receive further guidance in defining and documenting their competences and interests. Relevant documents should be up-to-date and at hand during the interviews. Interviews can be done in advance to find out what drives them and what kind of jobs and working environments would appeal to them.

#### **Case: Stebo in contact with companies and youngsters**

*Stebo will organize multilateral preparation interviews with the target companies and the supporting agencies in order to define their needs and bring them into contact with each other. Stebo will also engage in strategic sessions in order to find out how the local blue-collar workers and youngsters can become part of the factories/companies of the future (creating awareness, guidance trajectories,...).*

*The possibilities of creating alternative workplaces are evenly considered in advance. As such this offer can already be presented during the job event.*

*A counseling trajectory will evenly be set up in the mining region. Community workers will do similar interviews and can guide youngsters in setting up their CV. Often social issues (family- or person related) and cultural prejudices are standing in the way. Personal development will therefore be part of the trajectory as well. It will help them to make a good impression at the job event and take away any prejudices the companies might still have.*

### **3.3. Follow-up trajectory**

The necessity of follow-ups when a match is found depends on the types of target groups one is addressing.

When the search of companies is oriented towards finding high educated staff, a further guiding trajectory is not always needed. In this case a trajectory in which the companies and STEM organizations (science, technology, engineering and mathematics) are joining forces is more useful. Together they can define typical Industry4.0 profiles and develop good image-changing communication tools to promote them.

When working with vulnerable target groups, as is the case for Stebo a follow-up trajectory is necessary. When a match is found coaches/counselors can follow the employees during their first job experiences and help them keeping up attitude and motivation. Companies are further kept up to date of and counseled in applying alternative work models (e.g. train and place).

#### **Case: Stebo as trajectory guide**

*Stebo is planning to use registration- and evaluation forms that can be filled in by the companies. These could enable a proper counseling by the community workers, that can be easily adjusted when needed. In the first months the job experiences can be discussed with a counselor who motivates the youngsters to further develop their strong experiences and helps them to cope with the lesser ones.*

*In a way the follow-up is actually an extension or a continuation of the preparation trajectory. It is still rooted in the personal and cultural context of the participant.*

## 4. Individual event outlines

Apart from Stebo (PP10), the meet and greet will be organized in other regions as well, namely:

- PP6, Padova Chamber of Commerce
- PP7, BSC Kranj
- PP9, Marshall office Opole

In this section the individual context and event outlines are provided in a synthetic manner. Each of the partners has written an elaborate concept paper on the meet and greet, to which the reader is referred in case of wanting to learn more on a particular region's ambitions and goals.

### 4.1 Context Development:

The rationale behind each of the events lies in the mismatch between expectations and prejudices on both the employers and employees side. It differs from context to context. Contrary to the Stebo case, the three other regions mostly face the problem of brain-drain. Although the Industry 4.0 transition is booming in Slovenia (in the sectors of toolmaking, measuring techniques, components manufacturing, electric motors, energy, polymer processing and steel industry), Italy (digital upgrades) and Poland (still in starting phase), many experienced workers move to the metropolises where larger and more 'famous' companies are more successful in attracting (young) labour forces.

The workers that do stay in the region are often unexperienced or consist of Industry3.0 blue-collar workers. In Italy there is also a high rate of unemployed people responding to the NEET profile. Especially the young, experienced group has cultural prejudices towards industry related jobs which are considered as 'dirty'. Also, Industry 4.0 jobs require a high level of flexibility and adaptable conditions (e.g. short-term contracts). Young people and blue-collar workers in the participating regions are however looking for permanent, well-paid jobs. Additionally the competences and profiles the companies are looking for divert quite a lot from the 'ordinary' Industry3.0 profiles. Many unemployed people and graduates have troubles to connect these with their own talents and skills.

Employers therefore feel like they cannot find suitable work force in their operating region. This holds true for all three regions:

- In Poland some bad habits and attitudes from the communist times have contributed to this idea.
- In Italy unemployment has increased so dramatically that young people feel increasingly like 'extra's in the labor market instead of leading actors.
- In Slovenia and Poland the companies' return offer is quite poor: low wages and in many cases low respect for workers. It gives the impression that jobs are not well appreciated (in terms of both earning and acquiring knowledge and expertise), another cultural prejudice.

The participating partners however strongly believe that there are many talents and skills present in the regions, and that if companies are guided in looking from a different perspective they would see that a vast work force is actually present. According to both the Padova Chamber of Commerce and the BSC Kranj the mismatch between companies and employees already starts at the level of education. They are eager to use the meet and greet to gather the vocational training partners as well, to make them see that the gap between knowledge acquired in school and knowledge needed for successful integration in the labour market needs to be closed. While in Opole the higher education sector is well developed (6 higher education institutions, entrepreneurship incubators,...), financial incentives then mostly go towards projects feeding Industry 4.0 technological innovations and less to vocational training and guidance for job seekers.

Considering this context and these cultural prejudices the meet and greets will target pupils, students, unemployed and companies, added with musea, employment offices and other industrial actors. Main goals are countering braindrain and getting rid of cultural prejudices by engaging into

authentic face to face conversations, focusing on actual demand and offer of both the employees and the employers. BSC Kranj mentions parents as an important target group. Being brought up with the traditional values they can evenly motivate their children to go for a job in the industrial sector and to look beyond the cultural prejudices they might have.

## 4.2 Meet and greet concepts

The core of all concepts is to engage in authentic conversations where employer and employees get the time to know each other. The conversations will differ from the regular large-scale events. In all three regions this will take the form of a 'speeddate', referred to as a 'Recruitment Café' by the Slovenian partner. Participants get 15 to 45 minutes of 'quality time'. An interesting side programme is also foreseen:

- In Slovenia and Poland lectures will be held, pointing out best practices and traditional industrial attitudes and values.
- Each partner will moreover invite other relevant stakeholders, in many cases situated in the educational and employment sector (e.g. vocational training schools, employment office).

In all concept papers it is clear that sufficient time is dedicated towards preparation of the event. Contacts with companies and youngsters will be well prepared. In Slovenia companies will be asked to send their requests of workers profiles to the organizer who will look for a first match. The Padova Chamber of Commerce works the other way around and sends job seekers' profiles to the companies in advance. At Opole future employees will be offered workshops where they can practice on their communication skills and presenting their creativity and talents, while employers can go through workshops on (demystifying) the language of Industry 4.0. Communication on the event is done via the traditional channels (leaflet, (social) media) but via personal invitations as well.

The follow-up trajectory ranges in intensity and outputs from region to region. BSC Kranj will use evaluation questionnaires and set up a report on the possibilities that arise when bringing employers and employees in close(r) contact. It can be used as an incentive for policy makers and educational organizations. The Padova Chamber of Commerce will go one step further by monitoring the matches made between employers and employees as well as following the selected employees during the first months of their working experience. Poland will not do an individual follow-up but is planning to host new job events on a cyclical basis.

## 5. Annex: Industry4.0 trends

### 1. The evolution from a linear towards a circular industry

The transition towards Industry 4.0 is manifesting itself in the European economic landscape. This is visible in the (slow) disappearance of linear production processes which have characterized the classic manufacturing industries for such a long time. Certain principles coupled with linear production will disappear as well. The linear system couples economic growth with the use of finite (fossil) resources and rare materials. Products are fabricated in mass and destroyed when worn-out. Such a system produces waste and equalizes the term profit with selling as many products as possible.

Today a new philosophy is being formed, partly as response to technological and social trends (e.g. sustainability, climate crisis). Indeed, although a narrow definition of the term Industry 4.0 points solely to the introduction of new technologies and thorough digitalization processes, the broad definition also includes value chains situated outside the companies' working sphere:

*The factory of the future is typified by digitalization, but goes beyond that as well. Next to the omnipresence of ICT and Internet the factory of the future is part of a network where it interacts with other players in its search for consequent innovation and optimization of production processes. Each step of the process in the factory is strongly linked to **sustainability**, the employee is considered more as a **person** with certain wishes towards working conditions, and the most modern technologies are being applied. (Vision 2050, a long-term strategy for Flanders' - study of the Flemish Government, 2016, p. 30-31)*

It is clear that this philosophy is in some aspects the opposite of what is stated in the linear production mentality. Indeed, the basic motto of the so-called circular industry centralizes maximizing of the re-usability of products and minimizing impairment and depreciation. The focus on sustainability is further translated in:

- the creation process: rethinking production systems, smart designs, disassemblability in function of the ability to repair and replace product parts,...
- capturing productvalue: reusability, recycling, prolonging of lifecycles,..

It are these circular principles, which have grown out of social trends, that are at the basis of new consumption- and business models emerging in the Industry 4.0 context. The historic, economic and social context of a particular region determines what types of models are set up. In Flanders (and the rest of Europe, as studies ordered by the European Commission state) the transition manifests itself in the growth and increasing application of innovative technologies/digitalization, energy-efficiency, circular economy, product-service systems (PSS) and sharing-economy.

#### a. Innovative technologies/digitalization

Industry 4.0 entails amongst other things a far-reaching digitalization of the current industry. Important components are robots and machines who communicate with each other during the production process without human intervention. As a result certain actions are completely automated and are programmed to occur at exact moments during production. This is possible thanks to 'The Internet of Things'. Another characteristic is the growing use of 'big data' (analyzing large datastreams) or virtual testing of new production processes and technologies.

Contrary to linear industry new technologies no longer produce 1 single product but are designed to fabricate several products at once (with only one type of software). They can serve in an endless range of applications. The European Commission has defined 6 so-called 'Key Enabling Technologies' which should be the basis of the Industrial 'Renaissance' of Europe. Advanced materials, production systems and - processes are one of these. The most famous example of such a specialized system is the 3D-printer (American economic and social theorist Jeremy Rifkin calls it the new fabrication arm of Industry 4.0). This machine can produce an infinite number of products, which is completely in line with the Industry 4.0's philosophy.

#### b. Energy-efficiency (sustainable and renewable)

Linear industries are coupled with a high demand for energy simply because of the way they use and transport their materials. Circular industries are more oriented towards efficient energy-use and -generation, inspired by their aspiration of sustainability.

It builds on circular use of energy which implies a logic investment in several types of renewable energy sources. Local production of energy also becomes highly valued and is coupled with the ambition of self-sufficient factories.

New technologies are designed to efficiently use and transport materials and energy as well. In a way circular economy feeds nature growth (instead of inhibiting it as linear industries do).

#### c. Circular economy

Circular economy, in the strict sense, is dedicated towards 'waste management'. Focus is no longer on finding ways to reduce the amount of waste, but on finding smart solutions to use waste as raw material itself. This involves new production methods and consumption behavior. New products are no longer seen as finite. After they are worn-out the parts will be reintroduced in the production process or are allocated with a new function. This philosophy is currently being adopted by the manufacturing industries as well, who has integrated it as one of the chains in its production processes.

Circular economy is about closing the cycle. Resources are in other words re-used (or re-cycled) as much as possible. This means both biological resources and technological resources. They are designed in such a way that they can be re-used in qualitative way.

#### d. Product-Service Systems

Product service systems are emerging at a fast rate. These systems put a premium on usage rather than the possession of goods. The customer now no longer pays for a product, but for using the product. The price per unit and production volumes will no longer be of concern. Instead, it is the volume of use that increases and the cost use that decreases, while assets and products remain constant or diminish. This has important consequences on the life duration of a product. Indeed, the producer will make sure that the best materials are used, ensuring a long use (= circular). This has an important impact on the (design of the) production process (changes in method, tasks,...).

Many manufacturing companies (e.g. Philips) are already offering such product-service systems, while focusing on raw-material management and efficiency, more than before the introduction of Industry 4.0.

#### e. Sharing economy

The linear industry is based on gaining profit. The circular movement however creates other values than money as well. Focus is no longer on possessing a product, but on its use. Companies (and consumers who become producers as well) are currently sharing knowledge, information, ideas, services and production materials. Contrary to the disruptive economies, especially the cooperative sharing initiatives are contributing to the idea of circularity and sustainability.

## 2. Opportunities

The logic consequence of Industry 4.0 is a higher production rate (thanks to innovative technologies and new business models). But it has an impact on other sectors as well.

An entirely new value chain is connected with it. This requires a new way of thinking and acting of both the producer and consumer. Circular industry implies in a way that people switch from a mindset that centralizes possession of goods and products to one that puts priority on their accessibility. Industry 4.0 in other words brings about an entirely new philosophy, an entirely new industrial culture. But despite the fact that the Industrial 'Renaissance' seems very drastic, the industrial pioneer culture present in many European regions still closely relates to it. The community feeling and solidarity that is present in the blue-collar milieu is a perfect condition for developing sharing economies. While the fixing attitude (finding solutions when things are broken) is a competence/skill that is very useful in a circular way of working (fixing electrical appliances, dismantling of products in order to re-use the parts, sorting of materials,...).

## 3. Conclusion

The Industrial Culture that has characterized and shaped the industrial peripheral regions could thus serve as a strong basis for the transition towards Industry4.0. It entails key building stones for future developments. It is however up to the companies and the industrial sector in general to recognize them as such and give them a proper role in their transformation process: focus should not only be on new technologies, but on people and their cultural values as well!



## Abstract

The Industrial Culture that has characterized and shaped the industrial peripheral regions serves as a strong basis for the transition towards Industry4.0. It entails key building stones for future developments. It is however up to the companies and the industrial sector in general to recognize them as such and give them a proper role in their transformation process: focus should not only be on new technologies, but on people and their cultural values as well!

The underlying issue for all InduCult2.0 regions, however, is the image problem the industrial sector is currently facing. As a result the connection between the industrial sector and the labour market is not as evident as it has been before. The match between employer and employees is at stake. According to the regional context different reasons for this 'mismatch' are possible.

The InduCult2.0 partnership (and PPs 6, 7, 9 and 10 in particular) addresses this 'mismatch' by organizing 'meet and greets' between companies facing industrial transformations and (unemployed) future employees. The job event will explicitly challenge cultural prejudices on the sides of the work force as well as companies - both facing the transforming industrial society. Sufficient attention is paid to the preparatory and follow-up phase. The jobevent relates to a specific thematic result indicator (defined for T3.4.6: implementation) stating 12 FTE will be created. This corresponds to ca. 3 job matches per involved region.

The concept paper developed by PP10, takes the form of a blue-print for such a one day 'meet and greet'. Since the industrial environment and demands are not the same in the four participating regions, all aspects are designed in close reference to the local context (Industry4.0 environment, companies and potential future employees). Indeed, the blueprint is conceived in such a way that it is applicable in all (partner) regions. For that purpose all steps and ideas are firstly described in a general way, and then supplemented with information on the methodology that will be applied in the specific context of the industrial region of Limburg by Stebo. The latter descriptions are grouped in separate 'Case Boxes'. A specific part of the concept paper is devoted to the individual concept outlines and contexts of the other PPs. It is provided in a synthetic matter. Each of the partners has written an elaborate concept paper on the meet and greet, to which the reader is referred to, in case of wanting to learn more on a particular region's ambitions and goals.