**List of contents**

1. **Digitalisation and innovation from the perspective of the SME sector 1**
2. **The opinion of the SME organisations of the V4 countries 6**
3. **The opinion of the invited German and Italian handicrafts organisations 16**
4. **The opinion of the European Association of Craft, Small and Medium-Sized Enterprises (UEAPME) 23**
5. **The declaration of the SME organisations of the V4 countries made at the 2nd Regional digital Summit held between 25 and 26 January 2018 in Budapest 29**

**1.**

**Digitalisation and innovation from the perspective of the SME sector**

**Project summary**

Since its foundation, the Hungarian Association of Craftsmen’s Corporations (IPOSZ) has significant and well functioning international relations. During the past few years, moreover, decades, development of the relations with the V4 countries has become especially important.

For this reason, the Hungarian Association of Craftsmen’s Corporations has implemented a number of projects with the respective associations of these countries in those subject matters which are the most urging both in the field of co-operation and for the purpose to develop a single economic area. We have experienced in connection with our contacts with other countries, like Germany, Italy, Austria and others, that **the most fundamental tools of Industry 4.0, namely digitalisation, technological innovation, and the utilisation of robot technology will have such a fundamental role in the lives of the economic actors and companies, and as a result the whole society, that we definitely and very soon have to deal with these issues,** also because all the other countries do the same.

Within the framework of a project financed by the International Visegrad Fund, **the IPOSZ held an international conference in Hungary, on 17 November 2017 in Budapest,** where the leaders of the V4 organizations of craftsmen, as well as leading German and Italian representatives of the handicraft industry were present. Furthermore, we had the pleasure of welcoming the director of the European Association of Craft, Small and Medium- Sized Enterprises, the UEAPME, the executives of the head of departments of the Ministry for National Economy, and the Ministry of Foreign Affairs and Trade, the representatives of the ICT Association of Hungary, the Hungarian training system, as well as the Hungarian scientific and academic community.

This way, we have a complex picture about this topic. Our concept, according to which **extraordinary changes are in the pipeline and are going on in an accelerated manner and that these can intervene in an ever-growing manner into the lives of especially the family ventures, and the micro and small size enterprises** proved to be true and valid. The conference scrutinised this bunch of problems, the digitalisation and technological innovation from the perspective of the family, micro and small companies, because the biggest gaps were preliminary identified in the case of these companies. It became absolutely clear that the family owned micro companies, the companies with less than 10 employees represent a decisive part of the economy both in Europe and Hungary. In general terms, more than 90 per cent of the companies belong to the micro segment. Moreover, 90 per cent of them are companies with less than 4 employees. For this reason it is justified that each and every group of problems, issues including Industry 4.0 is examined from the perspective of this economic stratum. Otherwise, we are obliged to do so also because of the European Small Business Act whose core principle is ‘First think small’ and which has been in force since a long time.

Prior to the conference, the **SME organizations of the V4 countries had carried out a survey by questionnaires delivered to the small enterprises and the presentations during the Conference already contained the outcomes of this survey**. The questionnaires attempted to find responses relating to the digitization: whether the SMEs know about it, use it and consider it important or not. We also examined, whether the SMEs know about the Industry 4.0 national strategies and—from this aspect—how they judge the surrounding service and financing system.

Also within the framework of the project, in January 2018, the representatives of four countries had another work session in Budapest and the participants took part at the Second Regional Digital Summit held in Budapest.

The most important purpose of this study was to summarise, as precisely as possible with due consideration to the limitations in terms of the number of pages, the opinions of the participants about the subject matter in question. In the summary, we have emphasised the most important, general conclusions, which will be explained later under the different bullet points.

Basically, Industry 4.0 should be interpreted as the implementation and use of digitalisation, technological innovation and robot technologies. Within this, the project dealt with, in the first place, the issue of digitalisation.

The most important opinion is that **digitization is not an option to choose but an irreversible process**. This fact has been recognized and acknowledged by everyone, but, **as for its necessity for the SMEs**, there were different views. Finally, it was found that the degree of digitization **depends on the profession.**  There are professions for which digitization is essential, while there are occupations—which are rather related to physical work—for which digitization is not really necessary, yet. According to the trends, the process of technical innovation, including digitization, as well as robotization will reach each area of expertise and every field of our life. There will be occupations and crafts expected to massively decline and finally disappear, while new ones will be born and improve at such an incredible pace. Consequently, **in the future, everybody should have digital skills, both small companies and both large companies.**

However, it is still an open and disputed issue what the level of skill we are talking about should be.

The majority of the family, micro and small enterprises **actually implement the digital basic skills.** Since they use computers, mobile phones, some of the basic applications, but certain small enterprises do not even think that they should go on any further, as they think that what they need in order to contact with the authorities and the operation of their companies is actually done by them. However, in the case of a company with 2-3 employees, there is no need for a programme managing the inventories and/or software which organise the contacts among the staff members at high levels.

The opinion of the small companies was uniform also in that regard that the **development of digitalisation and marketing is very costly and the small companies do not really have funds or financial resources for that.** The data from Germany according to which only 30 per cent of the companies, enterprises or economic actors have a home page deserves attention.

Financial or funding problems and difficulties were clearly worded. We are talking about amounts of money **which the smallest companies do not necessarily possess. So-called positive discrimination would be very much needed** in the case of family and micro companies in the area of digitalisation and technological innovation. The Small Business Act also worded the need for this positive discrimination.

However, in addition to the financial problems, it was also worded very clearly that digitalisation and the whole technological development **also offers great opportunities for the small enterprises.** They can extend their reach with their products and services to those customers which they could not reach earlier and without digitalisation and technological development. They have better opportunities to receive information about their economic chances and they can talk to the younger generation more efficiently. Also the legal regulations and decrees require the acquisition and possession of certain skills, since the economic actors will have to communicate with the authorities in compliance with the regulations. In addition to this, digital tools, equipment and machinery can also represent value added in technical terms in the course of everyday work activities also for small companies.

The project examined the national strategies of the V4 countries existing in connection with Industry 4.0 and digitalisation. There exists such a strategy in every V4 country and also in the invited other countries. The survey made among the economic actors showed that the family, micro and small companies have very little knowledge or no information at all about these strategies. The surveys also dealt with the issue **whether these strategies cover the problems of the family, micro and small companies** or this question has only been started to be investigated in the segment of large companies. The conclusion we drew from the reports of the V4 countries indicates that **these strategies deal with, in the first place, the considerations of the macro economy and the large companies and export orientation. It became absolutely clear that that there is great scarcity of information among the family, micro and small companies in connection with the whole issue of digitalisation.** Remedying this information gap has to be the focal point of actions in the future, and the professional organisation with volunteer membership could better join this activity within the framework of a programme which is funded and supported in a co-ordinated manner.

Especially the reports from Germany and Italy showed that concrete action plans were also prepared in addition to the national strategies, and the implementation of the action plans has already started. **These action plans specifically deal with the family, micro and handicraft sectors.**

In connection with the action plans, the project also tried to have an overview of the **best practices.** In Germany, for example, 20, so-called centres of excellence were established for services, consultancy all over the country, and one of these centres of excellence specifically focuses and is dedicated to the small ventures of craftsmen. It is an initiative in Italy, which deserves special attention, that at national level, a kind of voucher in the value of 10 thousand euro was introduced which can be used for the purchase of hardware and software and payment for expert fees. The companies in this case have to co-fund 50% of the value. At the level of provinces, a subsidy system in the amount of 6 thousand euro was also created to finance these types of investments. In addition to these, independent service centres were created in the different provinces in Italy specifically designed for the SME sector to provide services and consultancy. The organisations of the V4 countries also agreed that digitalisation is an area where their scope of tasks will be much bigger and that they will have to intensify their co-operation.

Generational problems were also raised, since in the majority of the companies providing services, or related to manual work activities, mostly elderly people work. **Certain basic skills have to be acquired also by them,** because otherwise the actual existence of their own companies might be jeopardised. The new machinery will be operated with digital technology, and without the use of these machines neither production nor servicing can be executed in a cost efficient manner. **The government is digitalising its own system at a great pace,** and it means mandatory digital contacts for the economic actors.

The project also examined the training aspects of this issue. **There is no digitalised world without training,** because everything must be learnt. It was specifically emphasised at the conference that there is no need to learn abstract terms and notions but, in stead, certain functions have to be practiced. Consequently, **those practice-oriented training courses are in need, for which the entrepreneurs can leave their work for a certain period of time, and which can be financed by them in a cost-efficient way, and where they can practice certain basic functions of the digital world.**

The UEAPME dedicated – according to the opinion of the European Confederation of Small and Medium Enterprises – a significant chapter to the **security threats of digitalisation. These threats are on constant increase and raise concerns for the small companies.** They do not see clearly what kind of new regulations, decrees and stipulations protecting and representing also their interests will come out and what will be the additional administrative and financial burden for them resulting from these legal regulations.

No company, no enterprise and no economic actors can avoid to digitalise, at least to a certain level, its activities, but it matters a lot what they have to do for that, how much they will have to learn and how much it will cost for them. The legislators will have to pay attention and take into consideration to word the regulations and decrees not only according to the considerations and interests of the large companies, because if they do so, they may ruin the small companies. In turn, it is in the best interest of every country to preserve the competitiveness of their small companies.

Exactly for this reason, employment was also mentioned a lot in the project. At present, the stratum of micro companies represent more than 60 per cent of employment, and it is not all the same how the processes of robotisation and globalisation affect the area of employment. There were diverse opinions. According to one of them, **robotisation will be very fast,** and **it will infiltrate into all areas of the micro companies and, in practice, a lot of jobs will be terminated this way.** Though digitalisation will also create new jobs, according to what was said, approximately **twice as many jobs will be terminated than created.** There was no adequate answer to what will happen with those who loose their jobs. **At the same time, the companies at present have the feeling that the lack of skilled workers is on constant increase and this lack has started to be sensed also among the unskilled or semi-skilled workers.** Somehow, the two different phenomena are present simultaneously.

The other, different opinion was also worded according to which **no matter how important and rapid the process of digitalisation is, there will continue to be a great number of services, especially those which are related to manual work and satisfy the needs of the citizens in the repair and mechanical areas which will definitely be in need during the forthcoming three decades,** and there is nobody who can see any further than that. Continuous, profession-specific surveys made also among the micro companies should be carried out in order to better understand the situation.

It can not be disputed either that **the nature of work** and our work tools will change, will become different, no matter which service area we think about. The world of 3D printers will become widespread and the robots will infiltrate also into the small companies. Hopefully, all these will promote and not hinder human work.

The set of problems investigated in the project is so wide and extensive that, for example, the German handicrafts sector had worked for four years, in close co-operation with all the political parties, to prepare a comprehensive, several hundred page long study in North-Rheine-Westphalia presenting the future development possibilities of the handicraft industry. The complexity of the problems is increasing, and soon will become so complicated that it will not only touch the issues of changing life style but also problems related to social models.

Evidently, the project did not and could not analyse these issues in such a great depth, but – in stead – examined the economic considerations of the SMEs. The **government actors encouraged the participants to continue the co-operation of the V4 countries also within the Visegrad Fund.** It is of utmost importance that the different organisations of the SMEs further develop their past co-operation also in the area of digitalis. The government actors emphasised that **there is a European Visegrad, there is a regional Visegrad and there is also a digital Visegrad**. **All the three areas are very important from the perspective of co-operation among the V4 countries,** especially for the purpose to find common solutions. In the case of regional Visegrad it was emphasised how important it is to widen the East-European co-operation and further enlarge the European Union. **Digital Visegrad,** on the other hand, should promote the **economic competitiveness of this region. The 2nd Regional Digital Summit, which was held in January 2018 and where also the V4 organisations taking part in the project were present, served this important purpose.**

The issues raised in the present summary shall be discussed in more detail under points 2-3-4. At the occasion of the 2nd Regional Digital Summit, the SME organisations of the V4 countries also worded a statement which is presented under point 5.

**2.**

**The opinion of the SME organisations of the V4 countries**

The following organisations were represented in this project:

# Zwiazek Rzemiosla Polskiego (ZRP), Polish Craft Association

* Asociace malých a středních podniků a živnostníků České Republiky (AMSP ČR), Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic
* Slovenský živnostenský zväz, Slovak Craft Industry Federation
* Ipartestületek Országos Szövetsége (IPOSZ), Hungarian Association of Craftsmen’s Corporations

The four organisations worded their opinion on the basis of a previously reconciled questionnaire consisting of 6 points and their knowledge about the Industry 4.0 national strategies of their respective countries. The questions of the questionnaire were the following:

* **How does your own business interpret digitization and what do you think digitization can be used for in your company?**
* **What examples can you list, when digitization helped improve the competitiveness and business productivity of a company?**
* **Regarding the size of the business, is there any difference in the possibilities for application of digitization? What do you think a micro enterprise could do, and what actions could be done by a larger business?**
* **Is there a national strategy on Industry 4.0, and does it deal with the role of the family, the micro and small companies and their possibilities for the future?**
* **Does an service or system currently exist in order to deliver the essence of this strategy to family, micro, and small businesses?**
* **Is there any conscious support system which helps the digitization process of family, micro and small businesses?**

Each organisation sent, in their national language, the questionnaire to their enterprises working in the most significant handicraft special groups and they formed their summary opinion on the basis of minimum 30 completed questionnaires. The information which was gathered was presented at an international conference held in Budapest on 17th November 2017.

You find below the information worded by countries:

**Poland:**

The questionnaire was sent to 25 regional and two sectorial chambers, 16, selected handicrafts trade corporations with a large number of members, and more than 200 enterprises.

Responses were received from the following handicrafts professional sectors:

Construction industry, metal industry, pharmaceutical industry, hairdresser-beauty sector, opticians, timber and wood-working industry, leather and skin industry, food industry, car repair sector, electronic industry.

The most comprehensive answers regarding the utilisation and the different areas of digitalisation were received from the construction and metal industries and they raised the following topics:

* Digitalisation contributes to the simplification of hard-copy or paper based administration. Shift from paper based to electronic systems. Digitalisation is useful from the perspective of information flow within the enterprise. It facilitates the conversion of analogue data into digital data.
* The presence and use of the Internet accelerates the development of new technologies.   
  It promotes all those technological procedures which make communication, advertisement, PR, training and many other activities more flexible. It promotes the application of those IT and technological achievements which are available on the market in production and marketing. It introduces the utilisation of measurement tools with digital readers and it accelerates work procedures and strengthens competitiveness.

The enterprises also gave concrete examples for the achievements of digitalisation. You find some examples of it:

* It creates the possibility to connect fast message-sending and the new technologies, which change day by day. Mobile communication is capable to support the realisation of new tasks. Wider scope of data analyses helps the creation of the more efficient structures of decision-making in the business. It reduces costs, increases efficiency, the speed and size of manufacturing, and improves the quality of services and products. It contributes to and promotes the implementation of completely new product packaging systems. It renders possible the introduction of new document management systems which help the entrepreneur to send product data quickly to any registration centre, reducing this way the costs and expenditure of archiving and reducing this way the fix costs of, for example, paper and office stationery. The new CAD/CAM programmes made the use of modern interfaces possible. Computer technology is important because it makes the sales systems more efficient.

Regarding the question whether there is any difference in application between the large companies and the micro enterprises, the following answers were received:

* The majority of the answers received from large corporations underlined that the small and medium size enterprises could benefit much more from the application of digitalisation, especially through greater support given to the systems and programmes and also through further training for the human resources.
* The micro enterprises have limited opportunities for development, they have difficulties in their access to financial resources, and the systems are very costly. In addition to this, the lack of knowledge and skills is stunning and serious, and one-man management also hinders development.

Micro enterprises should have a rational approach to the opportunities. They should apply digitalisation only if it has tangible results, if there is external support, and if all these are completely obvious.

**A large number of micro enterprises render services directly to the customers and these can not be substituted with digital solutions.** In the case of these enterprises, digitalisation may help communication with other people.

The information systems are different and these systems are not always compatible with each other. In general, the bigger companies have more developed systems than the micro enterprises and can apply compatible systems much easier. The large companies can cope and keep pace with the short depreciation and limitation period, while it is difficult for the small ones. Often enough, the old, outdated programmes of the micro enterprises are not compatible with the new technological solutions.

It is very important that the digitalisation programme is properly adjusted to the size of the company. These programmes have to be similar to each other, to the extent possible, except when the micro enterprises work on the unique programmes of certain divisions or departments. The group of users is much bigger in the case of large companies thus it is financially more rewarding to develop separate programmes for the different divisions or departments.

Poland has an Industry 4.0 national strategy

* However, the majority of the enterprises did not hear about this national strategy and does not see any concrete benefits in it from the perspective of family enterprises. This strategy is difficult to access and highly bureaucratic for the small companies.
* Corporate platforms are necessary also for the SMEs, but equal terms and conditions of financing these platforms have to be created for the SMEs and the large corporations and open communication has to be created between the two. On the home page of the Ministry for Digitalisation in Poland certain information are available about it and information can also be acquired at the industry conferences organised by the Ministry for Development.
* The majority of the companies have no information about any support service systems which intend to render available the strategy for the family, micro and small companies.

The vast majority of the enterprises do not know about any, intentional and conscious subsidy or support systems for the digitalisation of the family, micro and small enterprises. Some of the companies provided the information that the regional operational programmes support, at least in some of the voivodeships (provinces), the existing and the newly established companies, and, in addition to this, there are companies which help the entry of data into computerised systems. Google and Microsoft promote, at different, free-of-charge workshops the start-up and small companies to understand their possibilities for movement in the electronic space.

**The Czech Republic**

The questionnaires were sent to about 1000 companies in the Czech Republic. We sensed that the small enterprises were distrustful in the survey. One of the most important reasons of their distrust is that the issue is too complex for many of them. For this reason, greater emphasis shall be put on making the problem understood in a complex manner when similar researches and surveys are made in the future.

* Digitalisation is a well-know term and concept, but it is understood quite differently from the interpretation of the Industry 4.0 concept. In their understanding, digitalisation means the simplification of administration, is equal to the use of the Internet and the computers, and the opportunity to find excellent products and good services on the Internet. According to the understanding of the Czech small enterprises, digitalisation is, in general, equal to the e-mails, the data bases and administration, consequently, they sent their examples from these areas. The most important examples are the following:
* It facilitates the preparation of electronic invoices. Simplifies the administrative activities and makes the documents more accessible. It helps to submit the documents to the public administration authorities. Some of the medium size companies indicated that 3D printing is a great help for them, while in case of the others, it rendered help in the office procedures. Others also mentioned the importance to introduce the on-line CRM system.

* The small companies are more sceptical when it comes to justifying the benefits of digitalisation, though they consider some forms of digitalisation indispensible. The following opinions were worded:

The bigger a company the more it needs digitalisation. Digitalisation will be less efficient at small companies.

The small enterprises are more flexible, but they do not have enough funding. At the same time, the small enterprises should not be afraid to invest into digitalisation. The large companies have enough money to develop the optimal solutions.

* Regarding the differences between the large and the small companies, two, basically diverse groups of opinions could be identified about the application of digitalisation. According to the opinion of the first group, there are big differences, the small companies do not have sufficient funding, or - actually - they do not really need digitalisation. In their opinion, there are obvious differences between the small and the large companies, because the large companies are much more forced to digitalise than the small ones. According to the opinion of the other group, there are no differences between the two groups of companies, since every enterprise has to improve its processes for the purpose of digitalisation. In their view, if digitalisation, in itself, makes sense at a certain company, then there are no differences between the large and small enterprises.
* The Industry 4.0 strategy also exists in the Czech Republic, but in really, the small enterprises do not receive any information from the state about this strategy. Those very few small enterprises, which posses the information did actually find the information on the Internet.

The majority of the respondents are not aware of any government support system in this regard. Some of them mentioned one or two market oriented, or non-market oriented organisations or platforms which try to offer help in this area. There are services in the state administration and in e-government, and there are EU funds and subsidies in the IT sector, and there are seminars and workshops.

The Czech federation knows about the existence of an official document, called the Industry 4.0 Initiative. However, this strategy does not deal with the family, micro and small enterprises separately. In addition to this, there is no specific definition for the family ventures in the law. There are organisations operating on market principles which offer their help in the area of digitalisation in the form of consultancy and provision of information. There exists the Czech information technology, robotics and cybernetics institute, but its operation, at present does not cover a wide scope, and there is also e-governance. According to the opinions, the Czech enterprises are not well informed about the topic of Industry 4.0. The reason for this, most probably is that the topic is too complicated and complex, and – presumably – the government does not do a lot for these companies to understand this subject better. The Czech measures taken towards digitalisation – according to the opinions formed – are not too revolutionary at the moment as it would be required by the issue of Industry 4.0.

**Slovakia**

The Slovak opinions were also worded on the basis of more than 30 questionnaires and the comprehensive experiences of the Slovak federation. The ideas and opinions can be summarised as follows:

* The family, micro and small enterprises were grouped into two categories: traditional SMEs and technical start-up companies. Enterprises active in production, handicrafts, retail services, construction industry, and agriculture belong to one of the categories, while companies dealing with information technology services, programming, and community networks and mobile applications belong to the other category.

The above two categories of enterprises have different opinions about Industry 4.0, they receive different government and EU subsidies, and take part in the financing programmes differently.

* Digitalisation offers the following opportunities for the traditional SMEs:
  + Individual solution for clients – higher client satisfaction
  + New ways of getting customers
  + Cost saving – improving of business processing, just in time supply, energy efficiency, resource management
  + More effective administration – between companies & in relation to state administration
  + Improved management and reporting service, systems of quality

All these are factors which improve competitiveness.

* Which are the threats and risks of digitalisation for the traditional SMEs:
  + Limited financial possibilities to finance the necessary analyses, preparation on strategies and their implementation, high costs for data protection measures
  + Missing capacity on human resources, which are allocated in daily business, not sufficient education and digital and IT skills for direct involvement, increasing need for trainings and re-education of staff
  + Age structure and old fashioned manners in the traditional craft sectors. It might be a disadvantage that in the handicrafts sector, the real pulling force – at the moment – is represented by the elder generation for which it is more difficult to acquire the digital novelties.
  + Being afraid of new technologies and of changes generally

All these factors may result in the loss of competitiveness.

* **National Slovak Strategy on Industry 4.0**
  + Called: Strategy on ***Intelligent*** ***Industry***
  + Only strategy document without action plans
  + There is more than 100x written a word „Industry“, „Industrial“; more than 100x used the word „Intelligent“, however only 8x is the phrase „SME“ to find and always with added words „too“, „also”
  + The focus is in the transformation of the automotive, machinery and electro technical industries, no specific attitudes to Services, Trade, SME sector
  + There are several programs for supporting the start-ups
  + There are different initiative, e.g. ***IT academy*** – for improving the ICT skills, ***Digital Coalition*** – cooperation between Government, Large Industries, Universities and IT companies (no participation of the SME representatives)
* **Slovak examples in the field of Digitalization** 
  + **The area of administration**: Digital Personal Cards with Possibility of electronic signature and access to official mailbox for companies; Digital communication with Social Insurance office – employee agenda; Electronic Sale of highway vignettes
  + **The area of tax duty**: Electronic System for Tax Declaration for corporate legal entity (since 2018 also for Self-employed Persons and Citizens), Virtual registration Cash-Desk
  + **The Banking Area** – Pay by Mobile Phone, Cash withdrawals via Mobile Phone, Satisfaction Survey via Face Screening
  + **The Travelling Area** - Mobile Applications for Ordering of Taxi or Accommodations in the collaborative economy
* What perspectives do the small and medium size companies, traditional SMEs and technical start-ups have?
  + Above all, co-operation between them
  + Information campaigns
  + Common or joint financing programmes
  + Establishment of business co-operations

According to the Digital Economic Outlook of the OECD, 76 per cent of the population uses the Internet regularly in Slovakia, 59 per cent of the population possesses basic digital skills, and only 2.2 per cent of the population is an actual IT specialist.

Since we are talking about Industry 4.0, it is worthwhile to mention that at present, the contribution of Industry 4.0 to the GDP is 25 per cent, while this ratio is around 5 per cent in the agriculture, 60 per cent in the service sector, 10 per cent in the construction industry and 80 per cent in the export.

Digital change is the most prominent and strongest in the areas of financial services, marketing and document processing and the weakest in production, logistics and labour management.

General conclusions from Slovakia:

* Digital innovation and the new business models result in changes, including the world of jobs and professions.
* Data based innovation and the new business models and digital applications change the operation of sciences, governments, cities and sectors, like, for example, health care and agriculture.
* In general, policies targeting to support digital innovation focus on innovation networks, access to information and (repeated use of) data, and pay much less attention to investments made into ICT, knowledge-based capital and data analyses.
* The different effects of digital change are manifested in the disappearance of jobs and their reappearance in different sectors, the development of new working methods and the territorial change of commerce, especially in the area of services. As a response to this, a number of governments supervise their labour codes and legal regulations on employment and their commercial agreements.

**Hungary**

The Hungarian Association of Craftsmen’s Corporations (IPOSZ) also worded the most important considerations based on more than 30 questionnaires received, and their domestic and international experiences gained up until now, which can be summarised as follows:

Within Industry 4.0, basically three areas were investigated from the perspective of the SME sector. These areas are the digitalisation and the notions and terms of network-building or networking. All the three of them equally represent challenges and opportunities of the SMEs.

* **In the minds of the small enterprises, the notion of digitalisation** means the utilisation of all those modern information technology methods which substitute the previous procedures and methods.
* If they mention concrete examples, then it is simplified to the following issues:
  + Correct use of **computers**
  + Daily use of **smart phones**
  + **Online** customer service
  + Use of **software**
  + **Knowledge** of how to operate machines
  + **Communication** both inside and outside
  + **Marketing** appearance on the market

The opinion of the small enterprises was worded also against the excessive acceleration of digitalisation. The opinions were as follow:

* Excessive digitalisation may hinder the performance of activities.
* At present, little digitalisation is required in the professions where manual work is dominant, like, for example, industry, repair and maintenances.
* Digitalisation is too expensive for the small companies.
* The small enterprises only have limited financial assets.

However, in connection with digitalisation, the smaller companies clearly acknowledged that:

* It is not optional, but unavoidable and useful;
* All in all, it makes the activities easier;
* Requires continuous training.

Which are the areas where digitalisation can help the activities of the small companies:

* **Marketing** activity
* **Website** operation
* **Warehouse** tracking
* **Database** management
* Understanding **the market and competitors**
* **Simplification of job trainings**
* Simplification of **administration**
* Consumer **feedback**
* **Relationship** between the central office and operating units
* **Precise vehicle positioning for transport companies.**

**When examining the opportunities of the large companies and the small enterprises** in digitalisation, the following opinions were worded:

* The large companies have significant advantages in the process of digitalisation.
* The vast majority of the opinions refer to the fact that it is not really worthwhile for the small enterprises to develop separately, in stead, they should rely upon the large companies.
* However, simultaneous with this, it was also expressed that the small enterprises are very innovative, they may even have new solutions thus they will not automatically adapt the ideas of the large companies.
* The small enterprises can see the advantages lying in digitalisation from the perspective of marketing activities, but – according to most of them – they simply can not spend money on it.
* In general, it is more difficult for the small companies to adapt to new situations.
* Also the companies with small number of employees are in need of training, and it represents, in proportions, greater financial burden on them.
* In order to make certain steps forward for progress, a certain company size has to be achieved.
* At the same time, digitalisation opens new opportunities for the small enterprises, partly in the areas not covered by the large companies, partly because – in reality - tailor-made services can only be offered by small enterprises.
* Digitalisation is not really common is the sectors where manual work is predominant.

The opinions also dealt with the relationship between the use of robots and employment.

The opinion according to which digitalisation and robotisation will not be able to substitute during the forthcoming years the service and repair-maintenance activities currently done hundreds of small enterprises was clear. Naturally, these activities can be made easier and their methods can be changed by robotisation and digitalisation.

* One of the most important questions is about the effects of robot technology and digitalisation on employment and the labour supply of small enterprises. It is obvious that the professions will change and the automation of large industrial production will result in job losses. At the same time, digitalisation may create new job opportunities.
* At present, the small enterprises increasingly sense the lack of skilled workers, especially in the areas where manual work is needed. The lack of semi-skilled workers is also in the pipeline. Development of robot technology may mitigate the difficulties related to manual work, but acquisition of skills required to manage robot technology might be a problem, if further education and training fails to react quickly to the needs of the market.
* In general, analyses and the Industry 4.0 strategy concentrate on large-scale industrial production, while the small enterprises have a decisive role in the service sector. For this reason, it must also be emphasised properly that the development of digitalisation and robot technology has to be analysed also in the service sector, especially in the case of small enterprises rendering services for the population.
* According to the opinion we can state that robot technology will not substitute, for decades ahead, the small-scale repair and maintenance activities especially in the areas which are closely bound to the requirements of the citizens. However, it is for sure that many handicrafts professions have to be renewed, have to expand their portfolio, and it requires ever increasing professional training and investments. It can be expected that automation and digital technology will enter also into the internal life of small enterprises, substituting or terminating certain organisational and administrative activities. It will then have an effect on the internal employment conditions of the small enterprises as well.
* The success of digitalisation and robotisation largely depends on the framework conditions under which the small enterprises perform their work (Internet coverage, guaranteed protection of company and personal data, positive discrimination of the small companies).

The relationship between the small enterprises and the national strategy, organised provision of information to disseminate the strategy

* The vast majority of the small enterprises is not familiar with the national strategy;
* But they know about the projects put up for the SME sector, but the majority of these projects, due to the conditions prescribed in the projects, are not accessible for the smallest enterprises;
* Regular support services and more information are needed.

The small enterprises need regular support services and much more and continuous information also in the process of digitalisation.

At the same time, the smallest companies are extremely creative and innovative, and digitalisation shortens the way they have to cover in order to become bigger and a big company, if they wish so.

**3.**

**The opinion of the invited German and Italian handicrafts organisations**

**German experiences about digitalisation among the SMEs**

The German opinion was worded by the experts of the Association of Handicrafts Chambers of North-Rheine-Westphalia. The German opinion divided the subject matter into three groups. One the one hand, they spoke about the current status of the situation between the German SMEs and digitalisation, the challenges and the solutions. On the other hand, they gave an insight into the help provided by the government and the professional organisations for the SMEs.

The current status of the German SMEs and digitalisation

* Altogether 56 per cent of the SME sector is on the opinion that digitalisation represents a great challenge for them, while 29 per cent thinks that that they have difficulties with digitalisation, and according to the opinion of 23 per cent, digitalisation endangers their pure existence.
* How much do the SMEs accept the present situation? According to 71 per cent of them, the small enterprises are late comers, 81 per cent think that small enterprises, in general, are open to the issue of digitalisation, and 21 per cent of them think that they are early-birds in applying digitalisation.
* Does digitalisation represent threats to SMEs? In the opinion of 9 per cent, it is a danger while 69 per cent think that it is an opportunity, and 21 per cent is on the opinion that digitalisation does not affect any influence on them.
* To what extent do the SMEs use digital technology?

Of the respondent SMEs, 25 per cent use digital technology and of them, 10 per cent use monitoring systems, 9 per cent use 3D printers and 3D scanners, 8 per cent apply intelligent maintenance, 3 per cent use robots and 2 per cent drones.

The above proportion ratios indicate the level of utilisation at present. However, if we examine what the proportion ratio of the enterprises will be who plan to use digital technology we are faced with increasing numbers everywhere. The ratio of the monitoring systems may increase from 10 to 11 per cent, while in the case of the 3D scanners, this increase might be from 9 to 12 per cent, in the case of intelligent maintenance from 8 to 19 per cent According to the plans, robots are intended to be used by 7 per cent in stead of 3 in the short term by the SMEs, and the use of drones is also expected to increase from 2 to 6 per cent. All this mean an ever increasing use of digital technology also by the small enterprises (it is not know, to what extent did these statistics examine also the family and micro enterprises within the SME sector).

* Which are the most fundamental obstacles before the enterprise?

Approximately 77 per cent of the companies have concerns about data security and IT, and 73 per cent of them think that the investment costs are too high. The lack of digital competences among the employees was mentioned by 67 per cent of the companies and 64 per cent complained about the fear from digital technology. There were complaints about inadequate band width of Internet coverage at 44 per cent of the companies, 41 per cent of them had problems with the lack of experiences in practical use and 17 per cent said that the clients were not really interested in it.

Challenges and solutions

The German partner highlighted through 3 concrete examples the areas where digitalisation can offer solutions also for the small enterprises:

1. The client wants to have the front of the house painted, but does not want to wait for three days for the offer of the painter, who is an enterprise. Solution: if the painter uses a smart phone application for digital measurements together with high potential ERP software (resource management of the enterprise) for the calculation of the costs, only 15 minutes are required to prepare the offer.
2. A brewery lends barrels to the buyers, but it happens quite often that they have difficulties to get them back, which is waste and loss of time and money for the brewery. Solution: if the brewery installs an EFID/GPS chip on the barrels, which contains information, for example, about the buyer, the term of rent and the actual place of the barrel, then practically each barrel will get back to the brewery on time.
3. When there is a technical problem with an elevator, that often causes an emergency situation and it costs much more to repair the elevator than it would have cost to regularly maintain the elevator. Solution: if an intelligent supervision and diagnostic software controls the data real time, and is capable to forecast and thus prevent the possible technical problem two days in advance!

The SMEs are supported the following way:

There is a ‘Digital Strategy 2025’ which contains and prescribes the following:

* 20 centres of excellence – one of them was dedicated to the handicrafts professions;
* Establishment of four SME 4.0 agencies;
* Launching of projects, like ‘go-digital’ (financing of external consultants)
* Full coverage with wide-band Internet (fibre optics) until 2025.

Similar measures are also planned to be taken at provincial level in North-Rheine Westphalia:

* The parliamentary scientific committee on the future of the SMEs worded 21 recommendations in the area of digitalisation, which are currently in planning and/or implementation phase;
* North-Rheine Westphalia centre of excellence for the handicrafts professions.

The German presentation was finished with two important thoughts.

Digitalisation affects all of us – not only business life, but also private life.

Digitalisation is not a unique of single task – but a permanent process.

**Italian experiences in digitalisation in the area of the SMES**

On the Italian side, the professional organisation called Confartigianato Bergamo summarised the Italian experiences. The Bergamo-based organisation is the third largest at national level, representing 13 thousand companies and offering numerous traditional and innovative services.

The Italian organisation summarised their experiences and the current situation in three large points.

**The Italian** **National Industry Plan 4.0. It is a plan created by the Ministry of Economic Development, approved with the 2017 Budget Law**

The Italian national Industry 4.0 plan forecasts the implementation of key actions:

* + HYPER AND SUPER DEPRECIATION, DEVALUATION
  + It is intended to support companies with the means of taxation that invest in new capital goods, tangible and intangible assets (software and IT systems) that are functional to the technological and digital transformation of production processes.

**Hyper depreciation means**: **from the perspective of tax deduction,** overvaluation of 250% on investments in new material assets, devices and technologies that enable transformation in 4.0, both acquired or leased

**Super depreciation means**: **from the perspective of tax deduction,** overvaluation of 140% on investments in new acquired or leased instrumental goods

* **MEASURES ON CAPITAL GOODS (NEW SABATINI)**

The measure on **Capital goods** is the facilitation made available by the Ministry of Economic Development with the aim of facilitating access to business credit and **increasing the competitiveness** of the country's productive system.

Supports investments to buy:

* Machinery;
* Equipment;
* Installations;
* Instrumental goods for productive use;
* Hardware;
* Software and digital technologies.

**– GUARANTEE FUNDS**

**Facilitates access** to financial resources for small and medium-sized enterprises through the provision of public guarantee, which often replaces the real guarantees of the companies.

**– R&D TAX CREDIT**

It helps to stimulate private spending on Research and Development to **innovative processes and products** and ensure future business competitiveness.

**All expenses related to fundamental research, industrial research and experimental development are deductible**: hiring highly qualified and technical staff, research contracts with universities, research institutes, start-ups and innovative SMEs, amortization allowances for laboratory tools and equipment, technical skills and industrial monopolies.

**–** EASIER AND LIGHTER TAXATION on income deriving from the utilisation of intellectual property **PATENT BOX**

To make the **Italian market** more **attractive** for long-term national and foreign investment by providing **facilitated taxation** on incomes derived from the use of intellectual property.

Thanks to the associations of small and medium size enterprises, there are also small costs among the accessible and eligible costs, which actually occur at the smaller companies.

**Other possibilities to receive government funds and subsidies**

* **NATIONAL VOUCHER FOR DIGITALISATION**

It is an easy measure for micro, small and medium sized businesses that provides a fund through the emission of a "voucher" of up to € 10,000 (50% of the expenses), aimed at undertaking digitalization of business processes and technological updating.

**What does it pay?**

* **Software**
* **Hardware**
* **Experts/ consultants**

The Fund is promoted by the Economic Ministry.

* **EXPORT 4.0: SUPPORTING E-COMMERCE AND FAIRS:**
* **New markets for Lombardy companies**

Non-returnable funds up to € 6,000 are provided to help Lombard companies to have access to e-commerce platforms, which represent additional sales opportunities at foreign markets. In addition to this, vouchers to participate at fairs in target countries.

The measure aims at creating export opportunities for smaller businesses, which are helped to use new digital tools

It is promoted by Regio Lombardia.

What does the organisation of entrepreneurs do?

1. Creates digital innovation hubs

* *Confartigianato’s Digital Innovation Hub is a knowledge network system, variously arranged locally, which guides the member companies to benefit from digital technologies for their business regardless of size and knowledge, aiming at reaching the optimal technological horizon.*
* Digital Innovation Hub aims at ***informing and spreading new technologies*** to companies in accordance with National Industry Plan 4.0. It also respects the purposes of the National guide.
* Provides services in the following areas:
  + ***Innovative services and Competitiveness of businesses***
  + ***Skilled Areas and Fields***
  + ***Tax advisory and accounting service***
  + ***Training service***
  + ***Credit service***

1. **BERGAMO SME INNOVATION HUB**
   * Coordinated by Bergamo Chamber of Commerce. It will be based at POINT in Dalmine (BG).

The core areas they deal with:

* Research and Technology
* Technology Transfer
* Incubator/Start Ups
* University
  + Bergamo Innovation Hub is:
    - A strategic ring of the network
    - One of the national business contact points
    - An external competence-centres partner
  + It is a **"collaborative"** model among subjects of a wider system that enhances the synergies between existing and existing structures.
  + **WHAT ARE THE OBJECTIVES?**
    - **Spread knowledge** about industry technologies 4.0.
    - **Mapping the digital maturity of businesses** through the realization of a joint self-assessment model, made available by Digital Business Points.
    - **Promote and organize courses of training** on advanced competences specific for sector / productive chain
    - **Orienting and creating businesses** to external digital transformation facilities, technology transfer centres, and Competence Centres
  + **Analyze the results** of the actions taken on the basis of the self-assessment mapping, update the strategies and initiate corrective actions.

**The impact of digitalisation on SMEs**

1. Advantages and users of digitalisation

Digitalisation includes production and management of orders. On-line help-desks reduce the time and the costs required for the management of clients and - at the same time - reduces the time to handle damages, losses and complaints. Digitalisation is a motivation tool especially for the young generation.

**THE USERS OF DIGITALISATION:**

* + Big companies which can diversify digitalization operations into more than one area of the company and extending the process to the entire production chain, they can involve a greater number of machineries and employees.
  + Small companies which have more limited possibility for interventions but those have the same effectiveness. It may be necessary to have a dedicated and young resource to trace processes and follow the computer aspects of the digitalization process.

1. **PROBLEMS TO BE ADDRESSED**

There are several issues that need to be solved to improve the digitization of Italian SMEs. These are the followings:

* SMEs often perform "informal" innovation and justifying the costs of obtaining funding for innovation is difficult.
* In Italy, only the 30% of SMEs have a website, so there is a gap to fill.
* There is little knowledge of foreign languages and it hinders the development of international trade (e-commerce, platforms).
* In the manufacturing fields, the average age of company owners is high and this implies a lack of interest on innovation.
* ICT companies are often unable to support businesses because they are too small and they themselves fail to innovate.

The further adult training is still not sufficient because entrepreneurs do not have time for their Education (the youngsters are digital whereas the company managers are traditional).

**4.**

**The opinion of the European Association of Craft, Small and Medium-Sized Enterprises (UEAPME)**

The UEAPME is the European level employer interest representation body of the crafts and small and medium size enterprises. It has 67 member organisations (national inter-sectorial associations and European professional associations). Altogether, they represent 12 million enterprises in the EU, which employ 55 million people in 34 countries. UEAPME is a highly appreciated European social partner. The opinion of UEAPME was worded by Luc Hendrickx who is the director of enterprise policy and external relations.

The opinion can be grouped into the following core areas:

1. **Digitalisation of Industry**
   1. Need for equal opportunities and mainstreaming: include the traditional enterprises
   2. Need for smart regulation, simple and clear for all parties without adding new burdens for SMEs; needs to be future-proof (to be taken up in REFIT)
   3. Exchange of best practices is extremely important
   4. Awareness raising and capacity building of and through intermediary SME organisations (lifecycle/sector)
   5. Better involvement of SME organisations in political debate
   6. Digitalisation is reform of skills
   7. Digitisation in broad sense <- -> digital trade /e-commerce
   8. Some SMEs do not feel concerned. In some countries already ¼ of Gross Domestic Product (GDP).
2. Traditional business models have changed -> competitiveness of SMEs will depend on how the enterprise can adapt to ongoing technological developments
3. Consumers are looking for additional information on products and services at the internet, social media, search engines; experiences from others; the lowest price
4. Changing consumer expectations – evolution to a 24/7 economy
5. High expectations from some groups- often very difficult for service provider to respond to these expectations. SMEs need to take this into account but also those who cannot or don’t want to follow this evolution which requires measure in real time.
6. SMEs: Need to offer added value: human contact and personal service.
7. **Family businesses & e-commerce**

* One of the most important dilemmas of the transition is that each enterprise is the captive of its own business model. They have invested a lot of money into an old business model, which is still lucrative. It is difficult to judge the success of the new model and how rapid the change will be. They have to invest into a business model, which is uncertain at the moment and – parallel with this – they have to continue to invest into the old business model. Often enough, they have to set up a separate unit for e-commerce, which can only be realised step by step. Family support is needed.
* E-commerce in itself can not be an objective

IT performance and digital capacities, both at management and staff level are required for e-commerce. E-commerce is more than IT/technology: it means logistics, customer management and communication at the same time. We should involve our colleagues, because they often consider e-commerce a threat. We should help them to eliminate their fear.

1. **Data economy**
   * Data economy means new risks and liability
   * Urgent priority to ensure legal certainty and to avoid monopolies of companies holding data by ensuring equal access to data for all stakeholders.

Monopolisation of data will otherwise cause negative effects on economic development, including the development of new businesses.

There is no agreement about who owns machine-generated, non-personal data, and primarily on the general terms and conditions that determine the use of data. The stronger negotiating position determines who can and who cannot use data – it is particularly detrimental for SMEs, which could risk being excluded from the economic use of the data they produce or that are produced by others.

* + Contractual freedom must be accompanied by initiatives to enhance fair competition, allowing access to data for all relevant parties, even weaker players.
  + Adoption of model contractual clauses could serve as a guide for fair contract design and would enhance negotiating power for weak stakeholders and users.
  + Data localisation requirements should be abolished inside the European Union in order to create a level-playing field among EU companies.
  + Access to data is already a priority for some specific sectors, such as the repair and maintenance sector. A sectorial approach for the mostly affected sectors might be a possible solution if market assessment shows that a horizontal legislative approach is not necessary

1. **Cyber security**

S**ome facts:**

* all YAHOO accounts (3 billion) have been hacked in 2013…
* One out of 5 websites of Flemish cities (digital guichet) are vulnerable
* Article “The Guardian”: Deloitte has been attacked
* Micro, Gps-function or WiFi connection can be activated without knowing and on distance
* Europol: Last year 2 billion documents of citizens have been leaked
* One in four medium-sized businesses in Germany have suffered a loss from a hacker attack, according to a survey
* WannaCry attack also positive : global wake up call, raising awareness of the worldwide threat
* SMEs on the one hand need to be encouraged to grasp the opportunities offered by the digital developments, as they are already lacking behind. They also show the diversity of the problem and there is certainly no “golden bullet” solution available for such a complex issue.
* Cybersecurity affects everybody: big and small enterprises, public authorities. SMEs are the weakest part: support should go to them. Total protection is not possible as then you would not be able anymore to use your computer.

Difficulties of SMEs are the followings:

Digitalisation is new and unknown for them. SMEs don’t have an IT department. Highly underestimate the risk! Cyberrisks are not visible, tangible for average entrepreneur: “open doors” are not visible.

* Entrepreneurs use to rely on passed experiences while in a digitalised world they have to look also in the future.
* Diversity of the single enterprises, therefore their problems are also very diversified.
* Growing problem also for the smallest enterprises: commercial espionage.
* Many have already been attacked but are not aware
* Those who have been attacked don’t speak about it: fear for image loss.

Additional and linked problem: Data protection. A further boost to demand may come from the GDPR that will require companies to report cyber breaches to regulators and affected individuals.

* Insecam: the topic of security cameras is also unsolved, role for the sector of hardware sellers: correct information of the client ( cheap Chinese key boards ): need for objective information
* Knowledge about IT management to avoid risks is missing
* Need to continue to develop coordinated action at EU level and beyond
* Member States should consider implementing more efficient fraud reporting mechanisms. Online reporting channels allow victims to report the crime without the need to contact local police.
* Law enforcement authorities must continue to develop, share and propagate knowledge on how to recognise, track, trace, seize cyber security risks. (How to distinguish fake mails: best practices!!)
* Authorities should engage early with the private sector, to seek solutions and inform SMEs.
* **Awareness raising towards SMEs, neutral objective information: role for the EU; need for capacity building in our organisations.**

**Digital skills for SMEs**

Which are the digital skills the SMEs have to acquire and what is their current status in this are?

* The SMEs have to acquire digital competencies. **44% of the Europeans do not have the basic digital skills (**DESI Digital Economy and Society Index).
* Skills needed to take advantage of the possibilities offered by a digital society. from basic user skills to allow people to interact online and use digital goods and services, up to advanced skills that empower workers to take advantage of technology for higher productivity and economic growth
* Digital skills are crucial for the economy, innovation, groth and job creation
* Heterogenety of SMEs 🡪 requires varied approach
* SMEs often outsource and buy IT services: competences immediately available

Identification of requirements for digital skills by the groups of professions and the adjustment of the syllabuses in vocational and adult training to these needs are necessitated:

* Two types of impact at the same time: new jobs developing vs traditional professions surviving.
* Fostering digital literacy from primary school level onwards and across all levels of education
* Teacher and Trainers Training and Continuing Professional Development need to be adapted accordingly
* Digital competences are already part of the key competences defined in the EP/Council Recommendation of 2006 on Key competences for Lifelong Learning … (2006/962/EC)
* The time available for these changes is not long, thus the changes have to be implemented with urgency, immediately!

There are four key manages regarding the development of digital skills:

* **Need to close the skills gap** since skills shortage has already a negative impact on growth and job creation (Crafts and SME barometer Oct 2017)
* **Need to adapt quickly to rapid technological changes**, need to invest in continuous training, up-skilling and re-skilling for digital and green skills
* **Priority to VET, work-based learning, apprenticeship** as initial and continuous VET
* When designing further training, it should be taken into account that the shift of public administration to digitalisation requires immediate digital skills at the companies. It creates an emergency situation for them, because the different authorities will change for exclusive e-administration immediately, on a certain, specified date.

**Necessity for future and innovation proof regulation for smart industry**

* Difficult for legislation to follow technological evolutions
* A new concept of logic is needed. It has to be flexible and has to react only to actual needs. It has to implement the principle of Think small first, and technological neutrality is required. The legislator may not make commitments to a given multinational company.
* Big Data/Interconnectivity : need to rethink/adjust/screen the liability rules
* SMEs need support and accompaniment in understanding (cyber)security, privacy and data protection risks along with related solutions

**Elaboration of standards for smart industry**

* Need for open standards, which prevent market dominance and dependencies
* More focused interventions to support openness and interoperability and for cases where the market actors, especially SMEs, cannot afford to develop standards
* In light of a future European standardisation plan and in order to strengthen the competitiveness of the European economy within a globalised market, a joint and coordinated approach by political decision makers and industry representatives is of high importance
* Programs, promoting and accelerating the development of standards and thus contributing to a smooth functioning of ICT-based systems, mechanisms and processes should be supported.

**For further reading:**

* UEAPME Position Papers on Digital Single Market: <http://www.ueapme.com/spip.php?rubrique229>
* “CloudingSMEs : White Paper – Summary and recommended actions for EU Commission and Public Authorities, Cloud Setrvice Providers and SMEs”: <http://www.cloudingsmes.eu/wordpress/wp-content/uploads/2015/10/CloudingSMEs-WhitepaperV6final2.pdf>
* “CloudingSMEs : White Paper – Being competitive by cloud adoption”: <http://www.cloudingsmes.eu/wordpress/wp-content/uploads/2015/08/CloudingSMEs-WP5-WhitePaper-being_competitive.pdf>
* UEAPME position on “Building the European Data economy”: <http://www.ueapme.com/IMG/pdf/UEAPME_position_on_Building_the_European_Data_Economy.pdf>
* CloudingSMEs: <http://www.cloudingsmes.eu/>

**5.**

**The declaration of the SME organisations of the V4 countries made at the 2nd Regional digital Summit held between 25 and 26 January 2018 in Budapest.**

The organisations of the V4 countries held a workshop in Budapest on 25 January 2018 and with the support of the ministry for National Economy took part at the 2nd Regional digital Summit in Budapest. At this conference, the issues of digitalisation and robotisation were discussed at the highest government level, together with the problems of the financial systems serving the present procedures. The experiences gained at this conference can be used by the SME organisations of the V4 in terms of their members.

At the occasion of this large, international conference, the SME organisations of the V4 countries prepared a joint declaration about the whole issue. The text of the declaration is the following:

**The statement of the SME organizations of the V4 countries related to the II. Regional Digital Summit**

**According to the Statistical Yearbook, 90% of the Hungarian enterprises are** micro enterprises employing 10 people or less, of which 90% employ less than 4 people. As this is similar to the ratios found in the other V4 countries, it proved to be necessary to examine the impacts and tasks of Industry 4.0, the digitization and robotisation from the aspect of these enterprises.

Within the framework of a project financed by the International Visegrad Fund, the IPOSZ held an international conference in Hungary, on 17 November 2017 in Budapest, where the leaders of the V4 organizations of craftsmen, as well as leading German and Italian representatives of the handicraft industry were present. Furthermore, we had the pleasure of welcoming the director of the European Association of Craft, Small and Medium- Sized Enterprises, the UEAPME, the executives of the head of departments of the Ministry for National Economy, and the Ministry of Foreign Affairs and Trade, the representatives of the ICT Association of Hungary, the Hungarian training system, as well as the Hungarian scientific and academic community.

Prior to the conference, the **SME organizations of the V4 countries had carried out a survey by questionnaires delivered to the small enterprises**. The questionnaires attempted to respond to the challenges of digitization: whether the SMEs know about it, use it and consider it important or not. We also examined, whether the SMEs know about the Industry 4.0 national strategies and -from this aspect- how they judge the surrounding service and financing system.

**The main conclusions of the conference may be reported as follows:**

The most important opinion is that **digitization is not an option to choose but an irreversible process**. This fact has been recognized and acknowledged by everyone, but, **as for its necessity for the SMEs**, there were different views. Finally, it was found that the degree of digitization **depends on the profession.** There are professions for which digitization is essential, while there are occupations -which are rather related to physical work- for which digitization is not really necessary, yet. According to the trends, the process of technical innovation, including digitization, as well as robotisation will reach each area of expertise and every field of our life. There will be occupations and crafts expected to massively decline and finally disappear, while new ones will be born and improve at such an incredible pace. Consequently, **in the future, everybody should have digital skills.**

By the SMEs, digitization and robotisation shall not be considered as a problem, rather **a kind of possibility for them**.

Since, unfortunately, about the whole process, the **SMEs have not much information**, it is essential to implement a continuous and wide-reaching information campaign about these processes as well as their importance for the enterprises.

Digitization and robotisation -as the most important elements of the Industry 4.0- will have such an influence on companies and enterprises, and their representative organizations that **these economic actors will have to be concerned with these processes continuously**.

Lack of information also means that the small entrepreneurs in the mentioned countries **have no or little information about the Industry 4.0 national strategies**, and their relating issues. Therefore, there may be two consequences: on the one hand, **small entrepreneurs should receive continuous and expansive information on the national strategies**, and on the other hand, **the national strategies should pay even more attention to family, micro and small-sized enterprises -as they have an essential role in the economy. It is important to notice, that this information process should involve the national networks of SME associations, as well**.

However, in several countries there are different platforms, they operate only at the level of large companies. Therefore, **it is suggested that there should be similar platforms at the level of family, micro and small enterprises**, as well.

As because micro and small enterprises provide at least more than 50% of the employment in every country, there was a huge debate about the impact of robotisation on the employment. **According to the more developed countries, digitization creates new jobs, but it is safely assumed, that twice as many jobs are expected to disappear.** The V4 organizations agreed that we have to face with both the above-mentioned process and the growing labour-shortage at the same time. It was also said that **in spite of the quick robotisation process, there will be many services related to mostly physical work as well as the needs of the population -such as repairing and fixing services- which will be necessary in the next three decades**.

**It was agreed that training has a significant role in the facilitation of the issues.**

**From the aspect of small-sized enterprises, the constantly growing safety hazards of digitization proved to be one of the most important factor. This opinion was also emphasized by the European Association of Craft, Small and Medium- Sized Enterprises, the UEAPME. So, mainly for smaller enterprises, the application of the protection methods, as well as covering the costs of it will be hard.**

**It was agreed that cooperation of the V4 countries should be continued and extended to the implementation process of Industry 4.0, as well. Besides the extension of the national strategies, for such businesses, positive discrimination should also be necessary to be applied while making laws and regulations.**

Budapest, 25. January 2018.

The 4 SME organizations involved in the project are:

|  |  |
| --- | --- |
| * **Czech Republic**   Asociace malŷch a středních podniku a živonstníku ČR (AMSP CR),  *Association of Small and Medium-Sized Entreprises and Crafts of the Czech Republic* | * **Poland**   Zwiazek Rzemiosla Polskiego (ZRP),  *Polish Craft Association* |
| * **Hungary**   Ipartestületek Országos Szövetsége (IPOSZ),  *Hungarian Association of Craftsmen's Corporations* | * **Slovakia**   Slovenský živnostenský zvӓz (SZZ),  *Slovak Craft Industry Federation* |
|  |  |