REPORT

SURVEY ABOUT THE KNOWLEDGE, ATTITUDES AND PRACTICES (KAP) AMONG BULGARIAN COMPANIES AND SCHOOLS REGARDING THE DUAL VOCATIONAL EDUCATION AND TRAINING (DVET) AND INFORMATION REGARDING THE DOMINO PROJECT IMPACTS ON THE DVET KNOWLEDGE ATTITUDES AND PRACTICES IN THE PROJECT COMPANIES AND SCHOOLS

I. PRECONDITIONS FOR CONDUCTING THE SURVEY

According to the information provided by DOMINO Project – dual education is introduced in Bulgaria within the project “Swiss support for the introduction of dual track principles in the Bulgarian vocational education system”, financed by Switzerland under the Bulgarian-Swiss Cooperation Programme.

It is very important to conduct surveys among Project companies and Project schools because these surveys will prove the positive effect from the DOMINO Project. Actually the positive effect is establishing a sustainable Bulgarian system of professional education, in which vocational education is tightly linked to the demand of the business.

Furthermore, conducting surveys among non-project companies and schools will make the project well-known so more companies and schools will participate.

II. OBJECTIVES

The objectives of the survey aimed at providing:

1) Data and analyses about the Knowledge, Attitudes and Practices (KAP) among Bulgarian companies and schools regarding the Dual Vocational Education and Training (DVET), referred in Bulgaria as Training in a real working environment

2) Information regarding the Project impacts on the DVET Knowledge Attitudes and Practices in the Project companies and schools.

III. TARGET GROUPS
Target groups are also described by the Assignor and they are as follows:

1. 100 Project survey companies, one interview per company
2. 32 Project survey VET schools, one interview per school
3. 500 Representative survey companies, one interview per company
4. 150 Representative survey VET schools, one interview per school

In the course of the survey Gallup International Balkan also provided:

1. One focus group with parents of Project students
2. One focus group with Project students, aged above 18
3. One focus group with parents of Non-project students
4. One focus group with Non-project students, aged above 18

In addition, Gallup International also conducted a pilot qualitative survey among Companies that have not been part from the DOMINO project yet.

IV. METHODOLOGY

The methodological approach was based on standardized face-to-face surveys, comparing observations on the Knowledge Attitudes and Practices regarding DVET among companies and schools, which have participated in the Project vis-à-vis representative observations of the general community of companies and vocational schools in Bulgaria. Additionally, qualitative data was collected, addressing the attitudes to the DVET system among parents and children.

All data collection process was assisted by letters of support, provided by the PMU.

V. QUANTITATIVE PART, COMPANIES SEGMENT

- Survey among Project companies:
  a. Sample: 104 Project companies along a sample list provided by the Client
  b. Method of registration: face to face interviews with company HRs or other managerial staff, one interview per company
c. Questionnaire: Standardized questionnaire, provided by the Client, up to 100 variables, including up to 5 open-ended questions.

- **Representative survey among Bulgarian companies:**
  
a. National representative sample of 502 companies, operating in the main industrial and manufacturing sectors, agreed with the Client, and excluding micro enterprises with less than 10 employees.
  
b. Method of registration and the questionnaire will be equal to the one used for the Project companies aiming further comparative analysis of the data.

VI. **Quantitative part, Schools Segment**

- **Survey among Project schools:**
  
a. Sample: 32 Project vocational schools (Vocational Gymnasia)
  
b. Method of registration: face to face interviews with school directors or deputy directors, one interview per school
  
c. Questionnaire: Standardized questionnaire, provided by the PMU, up to 100 variables, including up to 5 open-ended questions.

- **Representative survey among 150 VET schools (Vocational Gymnasia):**
  
  
b. Method of registration and the questionnaire will be equal to the one used for the Project companies aiming further comparative analysis of the data.

VII. **Qualitative part, Schools Segment**

- Four audio recorded focus groups among parents and students from VET schools, each comprising between 8-9 persons in locations proposed by the survey agency and agreed with the PMU, as follows:
  
a. One focus group with parents of Project students
  
b. One focus group with Project students, aged above 18
  
c. One focus group with parents of Non-project students
  
d. One focus group with Non-project students, aged above 18
MAIN OBSERVATIONS AND SOME CONCLUSIONS

SOME OBSERVATIONS FROM THE QUALITATIVE PART:

COMPANIES SEGMENT

PILOT SURVEY CONDUCTED BY “GALLUP INTERNATIONAL” IN ORDER TO PROVIDE BETTER AND MORE ACCURATE INFORMATION ABOUT THE ATTITUDES TOWARDS THE DUAL FORM OF EDUCATION IN THE BUSINESS SECTOR.

One of the main goals of the pilot qualitative survey conducted by Gallup International was to highlight the main attitudes towards dual education and also difficulties that every part of the process in dual learning meets. In order to do this the viewpoint of schools and students was not enough so Gallup international carried out an additional qualitative survey among Companies that have not been part of the DOMINO Project.

Represented here are some observations made during the analysis of in-depth interviewing with the employers.

COMMON KNOWLEDGE OF DUAL EDUCATION

There is a high degree of declarative acquaintance with the essence of dual education among the companies surveyed. This though may be due to possible automatism in answering or seeking prestige.

Although none of the surveyed Companies were part of the DOMINO project or have ever participated in any form of dual education method, the high levels of acquaintance are due to various attempts of applying elements of it in everyday work of the company or any form of its informal variations.

In general, most of the declared preconceptions about the idea of dual education are mainly positive. It should be noted off course, that some of the answers may be much more socially desired rather than real positive attitudes. In any case this is also indicative enough for the potential prestige of the topic surveyed here.
GENERAL ATTITUDES TOWARDS DUAL EDUCATION

School vs. University – potential tensions today and tomorrow

Critical opinions on the excessive emphasis on higher education (and neglecting the vocational) in our country are not rare. This is not only perceived as issue only for the representatives of the business in Bulgaria, but is also a related to the vision for the future development of our country as a whole.

Dual education leads to a useful combination of theory and practice

This is also the main motive found in all interviews – establishing more interaction between learning and working in real environment.

DIFFICULTIES CONCERNING THE DUAL EDUCATION

Discrepancy between knowledge, skills and expectations is one of the common mentioned answers (often given mechanically).

Preparation of a contract with a person under 18 – administrative difficulties are one of the most mentioned obstacles. The results show that the business in Bulgaria is not well enough informed on this issue which leads to some fear and worry.  
*More information of the results of the pilot survey is to be added in the final report.*

QUANTITATIVE PART, COMPANIES SEGMENT – MAIN OBSERVATIONS

In the course of the research programme data was collected both from companies participating in the DOMINO project and companies which are not part of this project. However, most of the surveyed companies (outside DVET) do have some experience working with trainees or implementing alternative form of dual education in their work so far. This was in order to find out the main difficulties and obstacles that have been experienced during
the process of implementing dual education and working with students in the participating companies. The main aim is to improve the knowledge of the current state of cooperation between business and the vocational educational schools and also the perspectives for better professional realisation of the students.

During the project were surveyed 104 companies – part of the DOMINO project along with 502 companies which are not participating in DVET. It should be noted that the data collected during the survey is not comprehensive enough for any general conclusions. Any observations and conclusions made in this report can only be used as an indicative tool in terms of better understanding of the knowledge, attitudes and practices among Bulgarian companies and the schools regarding the dual vocational education and training.

**MAIN DIFFICULTIES**

- The most common mentioned issue for both DOMINO participants and companies that are not part of the project is the uncertainty about the outcomes of investing time and recourses in students’ training during the dual learning process. Over two thirds of the companies state that investing in workers without having the guarantee that they will remain in the company is a serious difficulty when applying the dual learning system in their working process. This share is slightly bigger in the companies that participate in the DOMINO project, which comes to point out that more steps in terms of cooperation between business, education system, students are needed in order to achieve higher levels of certainty and stability of the dual educational system in the country.

  “Even if we sign a contract with penalty clauses, it does not work. We had such cases – we trained drivers, we gave them high qualification – as soon as they finished the course, the left immediately and went to Sofia” (Pilot survey, companies outside DOMINO)

- The statement above is twice proven by the fact that the majority of the companies state that the lack of incentives on behalf of the state is a considerable issue when it comes to the dual education system and the difficulties experienced by the business. This issue is particularly common among companies that participate in DVET.
“The interns who come to us usually go abroad after graduation. They are not disappointed with the industry, but with the situation in the country.” (Pilot survey, companies outside DOMINO)

Another significant problem that occurs in the process of working with school students as part of the dual education method is the incompatibility between the students’ knowledge and skills and the needs of the companies. Over half of the of the surveyed companies (57%) share that skills and knowledge that students receive from the school system are not enough to meet the needs of the business. Apparently, another common problem is that the vocational schools in Bulgaria do not provide students with the required expertise for the real-life working environment what is necessary for competitiveness in labour market. This issue appears equally relevant for both the participants in DOMINO and the companies that are not involved in the project. Furthermore, this often leads to more difficulties for both business and students. On the one hand – it is often mentioned that it is necessary to re-educate the students in order to involve them completely in the working process of the company, which means additional expense of time and resources. Over 20% of the interviewed company representatives declare that breaching the production pace due to involving human resources on training is a significant difficulty when applying dual learning system.

Similar statements were also stressed out during the in-depth interview with companies outside the DOMINO:

„They finish school empty-headed. They come with hollow diplomas and no skills behind” (Pilot survey, companies outside DOMINO)

“Sometimes we don’t make certain deal because we just can’t take the risk with the available workers.” (Pilot survey, companies outside DOMINO)

Another problem that is highly recognised over the interviewing process is the burdensome procedure when interacting Labour Inspectorate. It seems that this issue is more troublesome for the companies that are part of DOMINO – 41% of the DOMINO participants share that they have such problems when hiring students while for the non-DOMINO companies this share is 26%.

“We were interested in hiring high school students in order to attract them to work for us after graduation. Unfortunately, this idea could not be realized due to fact that the
Labour Inspectorate prohibits hiring minors. If they are to be hired, it goes through a long procedure.” (Pilot survey, companies outside DOMINO)

On the other hand, it is noticeable that the companies that are not part of DVET have considerably more difficulties with the compliance to the work discipline on behalf of the interns – 30% of the interviewed DOMINO companies declare that they have difficulties in this regard while near half of the non-DOMINO companies share having troubles on the same issue.

“And when they come to me from the school, they only come to do mischief, and the teachers are demotivated” (Pilot survey, companies outside DOMINO)

EXPECTED DIFFICULTIES

Expectations about the possible problems that may occur are also indicative for the importance of the difficulties experienced by now. It is noticeable that the same issues occur when speaking about expected problems - which is symptomatic for the registered weak points of the dual education in Bulgaria. This adds more weight on the tasks that should be accomplished if aiming at wider extension of the dual learning method in the national education system.

When asked what they expect if the dual learning is to be implemented in their work most of the companies representatives share again incompatibility between students’ knowledge and the actual work in the company (26%). Again, this share is slightly higher among the companies that are part of DOMINO (35%).

Also, work discipline of the students seems to be one of the main worries.

Issues related with the heavy procedures when interacting Labour Inspectorate and difficulties with the employment contract with the intern.

It seems that the most common worries mentioned above are shared equally between DOMINO participants and nonparticipants. Nevertheless, a brief look through the results shows that the companies that are part of DOMINO expect to have more troubles during the working process with the students, while the other companies tend to mention relatively more often difficulties related with administrative procedures. This may be due to the eased procedures and cooperation between the companies and schools that participate in the project and the state institutions. However, the problem with the incomplete skills that the students
perceive in the vocational schools still stays and is relatively high evaluated by the DOMINO participants.

A conclusion could be done that key difficulties business is facing are predominantly related to potential lack of knowledge and skills of the interns as well as possibly insufficient measures on behalf of the state in order to help cooperation between education system and the business. The administrative difficulties (without being underestimated) come at second place.

**INFORMATION CHANNELS – SOME OBSERVATIONS AND RECOMMENDATIONS**

The survey results speak of the wide necessity of any kind of information concerning responsibilities and activities that come with the application of the dual learning programme. This again applies both for participants and nonparticipants in DOMINO project.

- *The possibility to submit an application to the vocational schools for the training of workers* – mentioned by 36% of the companies represented in the survey. The lack of information in this matter is relatively higher in the “Hotels and restaurants” sector and also in the Southwest region of the country (50%).

- *Specifics of employment contract when hiring* is commonly mentioned issue on which the respondents share to insufficient information (43% of all the surveyed companies). The Northeast region stands out with over 60% share of the answers, the companies with 51-100 workers and again the “Hotels and restaurant” sector. This is also one of the main difficulties pointed out by the business representatives. So, in this case a wider information campaign or additional help would be appropriate for easing the procedures of hiring more students and wider application of the dual learning method in the companies.

- *The responsibilities of the companies when organizing trainings at the work place* (43%) - it seems that this issue is not enough clarified so far, as a significant share of the surveyed companies declare that would like to have more information. This is especially valid for the companies in the Construction sector as more than 50% of them say that they need more information on this subject.

- Another issue that should be clarified according to the survey results are the *possibilities for helping the companies when hiring interns* – 43% of the surveyed companies state that they need more information on this matter. It is expected that such information should lead to a greater interest on the companies’ side. If provided, more information
about the state support for the companies could possibly widen the companies interest in hiring students.

- It should also be noted that when it comes to the companies which are part of DVET the need of more information concerning cooperation and contacts with other partnering companies (47%).
- When it comes to the nonparticipating in DOMINO companies on the other hand, information about the relations and work cooperation between the students and the companies is not sufficient enough.

- The most commonly preferred information channel seems to be the online communication. 60% of the surveyed company representatives say that they prefer to be informed though Internet. The second most preferred channel for communication is the personal contact trough work meetings and experience exchange. However, it seems that for the companies that are already part of the DOMINO project work meetings and experience exchange seem to be much more effective end therefore preferred information channel (72%) than it is for the nonparticipants (40%). Also, the share of the non-participants who prefer online communication as information channel seem to be relatively higher than the average share for all the surveyed companies. Of course, the registered differences may be due to different kind of information that the participants and nonparticipants need.

ATTITUDES TOWARDS DUAL EDUCATION

Taking into consideration difficulties mentioned above, the intentions of hiring interns seem rather moderate – at least at first glance. 22% of the respondents claim that it is highly possible to hire interns for dual education in their company during the next school year, 20% share that it is possible, 30% of the company representatives share that it is rather unlikely and another 19% claim that there is no such possibility. The rest of the respondents (9%) can’t decide.

Nevertheless, the share of the companies that are part of DOMINO which claim that it is very possible to hire interns for the purposes of dual learning in the next school year is significantly higher – 68%. If we add those DOMINO companies which declare that it is likely to hire interns, that means that practically almost every DOMINO participating company has the intention to hire more students for dual education.

This situation is different for the non-participating companies though. 13% of those companies share that it is very possible to hire students in a dual education program and 19% say that it is likely. Yet the largest share claims that it is unlikely (35%) or not possible to hire students for the next school year at all (22%). The remaining 11% don’t know. The fact that these companies are less eager to involve students in their work speaks for the need of more information and also wider cooperation and communication between public institutions, schools add business.
Same observation applies for some regions like Northwest Bulgaria and also South-Eastern and South-Central region of the country. As for the field of activity of the companies – it seems that some branches are more open to the idea of hiring students for dual education program than others. For instance, in Agriculture, forestry and fisheries branch and Transportation and Storage and the Construction sector as well. The lack interest in dual learning and hiring students in these branches may be due to the specifics of their field of work and the required standards for safety - as the company representatives often mention this issue to be central when it comes to hiring minors.

**COOPERATION BETWEEN BUSINESS AND EDUCATIONAL SYSTEM**

The assessment of the cooperation between the companies and the vocational schools on the local level in general is not particularly high. About one third of the survey participants assess the cooperation as good, but those who see it as rather bad are 52%. Another 16% cannot form an opinion on this matter. Again, in this case the companies participating in DOMINO have more positive view on this issue than the non-participating companies. From this point of view, it could be noted that the DOMINO project has had a rather beneficial impact so far by easing and improving the communication and the interaction between the business and the vocational school system. However, this impact is more positively evaluated by the larger companies. The companies that have between 10 and 50 employees, on the other hand, find the cooperation between business and school on the local level rather unsatisfying.

The survey registers some disproportions between the different regions in the country, as already noted above. The cooperation between companies and schools is more troubled according to the survey results - particularly those in South Central and Southeast region.

It seems that cooperation between vocational school system and the business is still on initial level. Especially when speaking about companies outside the DOMINO project. When it comes to the DOMINO participants on the other hand, the registered results reveal good levels of communication with the schools in terms of submitting applications for required workforce (70%) and consultations regarding the required changes in the school programs (53%). When it comes to active participation in the school councils though the level of the claimed communication seem to be relatively low for the DOMINO participants too (28%).

Most of the non-participating in DOMINO companies claim to have little to no interaction with the vocational school system. This difference between the results for the DOMINO participants and the other companies could be analysed in two possible ways:

1) **As an indication of the achievements of the DOMINO project so far.** Most of the DOMINO declare having been in communication with the vocational schools when it comes to submitting applications for required workforce in a vocational school (70%) and also consultations regarding the required changes in educational programmes (53%).
And

2) as further proof of the need (already mentioned) of additional work in terms of cooperation between the business and schools and state institution as a mediator between the two parties.

The cooperation between the business and the vocational schools should be established by creating new partnership between companies and schools - this is the most common opinion shared between both participating and non-participating in DOMINO companies. Almost half of the surveyed companies choose this option as the most appropriate for establishing a better cooperation. However, there are some differences in the preferred method of communication for the different regions and branches.

It seems that the idea of involving the company employees in the process of developing new educational programme (so that it could better meet the industry’s needs) is not quite popular yet and thus not evaluated as particularly positive. 23% of the surveyed companies declare that they would spare some of their workers in order of developing a new educational program and 26% of the respondents are not willing to do this. Another 37% say that it depends on the concrete situation and the remaining 13% cannot really say whether or not they will participate in the process of developing a better and more suitable for the business educational programme. Again, there are noticeable differences in the way that DOMINO participants and the other companies response - over half of the surveyed DOMINO companies are willing to include their workers in the school programme developing process. Among nonparticipating companies that share is 17%. This again indicates high levels of insecurity that is felt by the business when it comes to investment in dual education.

MEASURES AND INCENTIVES

When asked about the most urgent legislative measures that would resolve the problem with the lack of workforce in Bulgarian industry, the largest share of the companies state that implementation of effective professional orientation in an early age will be the most helpful measure (54%). In general, it seems that changes that are related to reforms in the national educational system are more highly evaluated than other legislative measures concerning the interaction between business and vocational school. So, at this point the results show that companies are not willing to take the initiative to cooperate with schools in order to ensure more effective dual education programmes design. The companies are more prone to rely on state institutions and vocational schools to educate and train students.

As for the preferred stimulations the survey results point out that any financial incentives are highly welcome. Tax exemptions are estimated to be the most preferred stimulation for implementing the dual learning system among the surveyed companies (44%). This applies for all 6 statistical regions covered by the survey and all the branches included in
the sample. Nonmaterial motivations seem to have no significant impetus on the companies when it comes to hiring students for dual learning.

**STUDENTS’ POINT OF VIEW:**

**Attitudes towards dual education – FG outside DOMINO:**

- The ideal is appealing to all students. The payment is the main factor for the attractiveness of the dual learning. Students associate it (dual learning) mostly with paid internship.
- As for the knowledge they would get, according to students it depends on the company itself. Because of previous experience with disinterested companies, the term “dual learning” is not so connected to expectations for serious work and professional development, but rather financial benefits.
- One of the students shared his disappointment with an internship:
  
  “In their eyes we are inadequate and unable to deal with anything. The firm was willing to take us, but it was only for the sake of formality – so that they could get the financial bonus for our training, but they never actually let us work.” (FG – students outside DOMINO)

**DOMINO students:**

The impressions of the students which took part in the project are rather divided. It seems that the perceptions of the project depend mostly of the environment in the company. The communication with the staff is of main importance. Overall the majority of the students expressed satisfaction with the dual education – the experience is evaluated as positive. Students claim that they learned a lot during the internship. Yet, some of the students shared that the work they did was not related directly to their education. There were also some complaints about payment.

“Sometimes they made us do things we should not. For example, ironing, cleaning. We worked 3 hours a day, but our contracts were for 7. We wanted to stay more (at the company). After a while we felt like colleagues with the workers. We helped them, they trained us well.” (FG – DOMINO)

“At the beginning, they made us do things that were not related to our education – to clean, to arrange the service. We were like cleaners. At one point, we gained their trust and they allowed us to work on the cars even without mentor.” (FG - DOMINO students)
“For this whole year, we have gradually learned what needs to be done and what is required by us. In my opinion though, the mentors that were responsible for us were not experienced enough. They did not know what kind of work to entrust us with, so they told us to unwind bolts and carry boxes as if we were slaves. That had nothing to do with our work. They should give us different tasks and explain us more. We did many things that are not related to our specialty” (FG - DOMINO students)

I’m not particularly happy. They give us almost nothing to do. I have a mentor, who should explain me what to do and how to do it. He should teach us all kinds of things, but whenever I ask him something, he says – stay back, because you’re blocking my work. I’ve been only sitting aside all day.” (FG - DOMINO students)

Parents point of view

Some of the parents also report disappointment of their children and unmet expectations. The reasons are probably complex, but part of the problem is related to the organization of work in the companies. The children can’t easily adapt into the role of a “working person” - this is also a key issue mentioned by parents.

- All parents (DOMINO parents FG) believe that engaging in work process, gaining practical skills and overall student satisfaction is highly dependent on the mentor.
  “By us there was actual practice but only in certain places (departments, floors) or it was depending on the mentor (of his willingness to work with the student).” (FG – DOMINO parents)

  “Apparently quite a lot depends on the mentors. Some reject the children while others are willing to teach them. My son changed two mentors. He was very pleased with the first one at the beginning, but after a while the mentor stopped working with him and said that he (my son) should go away and arrange another mentor himself” (FG – DOMINO parents)

- Ambiguities in the formation of students’ salaries were also an issue.
  The other problem is payment - five different companies, and each company offers different salary to the children. Yet, they (the children) are appointed in the same manner and they have the same responsibilities and tasks in the company ... kids talk to each other.”

MAIN CONCLUSIONS

- Dual learning method is predominantly perceived as positive among Bulgarian companies – both participants in the DOMINO project and nonparticipants.
- There is a high level of discrepancy between the needs of the business and the skills and knowledge that Bulgarian students obtain in the vocational school
system. The survey also registers high levels of disaffection and mistrust among the surveyed companies regarding the Bulgarian educational system.

- The companies that are part of DOMINO experience much better communication with schools and the students, than the companies outside the project.
- According to the survey results there is relatively high level of uncertainty among the companies applying the dual learning system in their work in terms of keeping the trained students at work and guarantees for the invested time and efforts.
- At this point the cooperation between local institutions, business and vocational schools is not well established yet.
- Companies that implement dual education outside of the DOMINO project experience more difficulties when interacting with public institutions.
- There is still not enough information about the possibilities that the dual learning method offers.
- Some regions (Southeast and Northwest Bulgaria) experience more difficulties when implementing dual learning method than the rest of the country.

**QUANTITATIVE PART, SCHOOLS SEGMENT**

**DUAL EDUCATION –**

**PAST EXPERIENCE AND COMMON KNOWLEDGE**

For the school segment of the survey Gallup international provided 31 interviews with school representatives (DOMINO project sample) and 153 with school representatives outside the project. Again, this was in order to establish the main difficulties experienced during the dual learning and for the purposes of comparing both sides of the process.

Again, it should be considered that the sample is not representative enough for any general conclusions to be made. The current report provides only brief overview of the main attitudes towards dual education in Bulgarian vocational schools and serves as a base for future more in-depth study.

The data shows that most of the vocational schools do not experience difficulties in finding students for the plan-admission (42%). Nevertheless, there are some specialties that occur to be mentioned relatively more often - Science and engineering technicians, metallurgy, machinery and related professions and stationary plant and machine operators.
It seems that most of the vocational schools sampled in the survey are familiar with the dual learning method – 62% of the respondents declare that they know about the learning in real learning environment (in theory). This share is 73% for the schools outside DOMINO. When it comes to the practical applying of the dual learning method though the difference between DOMINO participating (94%) and non-participating (16%) school is significant. It is noticeable that the share of the schools that have no information about the dual learning is rather small (2%). It should be noted though that in the agriculture, forestry and fishing schools the share of the not familiar with dual learning is a bit higher (8%).

Science and engineering technicians (54%) are the most commonly mentioned speciality that the vocational schools are willing to organise admission and training of students on a dual training system, if requested by the employers. Metallurgy, machinery and related professions come in second place with 13% of the responses. Hospitality, retail and other services managers and also service workers are also specialties that are relatively often mentioned by school representatives in terms of willingness for admission and training. Sellers, medical specialist and personal care on the other hand are the specialties that occur to be the least mentioned as a option for new admission in a dual learning form.

The school representatives were also asked to give their personal opinion about the most needed specialties in dual learning programme. Science and engineering again appear to be the largest share of the responses, as half of all the interviewed school representatives dive this answer spontaneously. This is indicative for the necessity of more opportunities for dual learning in this aspect (science and engineering) as this specialty is the most common mentioned both in terms of finding students and also educating them in real learning environment. Personal care, metallurgy and machinery are also in the top positions.

It should be noted that almost a fifth of the respondents say that implementation of dual learning method is not necessary for none of the specialties learned in their school (18%) and another 10% say that they are not ready to implement this method. That attitude could be considered as a result of misinformation and mistrust regarding the dual learning method and its positive outcomes (both for the students and for the national economy). So, it appears that more information and an appropriate awareness campaign is still needed at this stage.

**Main Difficulties:**

- If the most common issue for the business was the uncertainty about the invested resources, for the vocational schools it is *the lack of companies that are interested in dual education* (44%) – this issue is equally important both for the schools that participate in DOMINO (42%) and for the surveyed schools outside the project (47%). Some of the national regions though do not seem to evaluate this difficulty as high as the others – for instance Northeast region and South-Central Bulgaria. The same applies for some of the branches that the vocational schools are oriented in (such as Building and transport). What is noticeable is that in those regions of Bulgaria the schools report relatively fewer experienced difficulties for each of the options listed.
This could be a result from the fact that in those regions there is relatively small amount of vocational schools, thus the reported difficulties are less.

- **“Not enough students for forming a dual group”** is also highly evaluated as a difficulty - 30% of the surveyed schools. Again, the schools oriented to Construction and transport do not seem to be as worried as the other vocational schools by this issue (10%). It is also noticeable that the municipal schools have rather less difficulties in that aspect. The state schools and also those with 250 or less students on the other hand seem to be more troubled when it comes to recruiting students for dual education group. Yet, the problem with the lack of students for dual group seem to be common both for the DOMINO schools and the other surveyed vocational schools.

- Another commonly mentioned issue when it comes to applying dual learning method in the Bulgarian vocational schools seem to be difficulties in **covering the whole curriculum, due to the narrow specialization of the production**. The results of the survey show that this seem to be a slightly more important issue for the schools that participate in the DOMINO project. Covering the whole educational programme also seem to be a bigger problem for the schools from Southeast Bulgaria (55%), and particularly for the schools in extracting and manufacturing industry (almost half of the school representatives from this area state that this is an issue for them).

- Difficulties related with bothersome procedure when interacting with the Labour Inspectorate also occur to be an important issue. This was also one of the main problems mentioned by the company representatives asked in our survey. This speaks of the need of facilitating procedures and additional work in terms of cooperation between business and educational system in the country.

**STUDENTS’ point of view:**

The overall impression is that representatives of the vocational schools in Bulgaria are sure in the knowledge and skills they provide to students (both participating and nonparticipating in DOMINO). Yet, this was one of the main problems, registered during the survey among business representatives. During the focus groups with students, that were carried out by Gallup International, the discrepancies between knowledge received in school and skills and what is needed for the actual working process in the companies was repeatedly stressed out – both from the students that took part in DOMINO and the students, that have not been part of the project, but have experience as interns or have attended some kind of practise (outside of the project). There is general consensus that the theoretical education in school is not at a plausible level and students have a lot to catch up during practice.

Also, all students had teachers who thought them only formally (simulated teaching) – **“when they are in class, they do not teach or there is no class at all - it all depends on their mood (teacher’s mood) – if they feel like teaching today or they don’t feel like it.”** (FG outside the project)
“The main problems with the theory are two: outdated material and teachers wearing blinkers” (FG outside the project)

“What we learned in school has nothing to do with the actual work in the company. The whole theory has almost nothing to do with it” (FG – DOMINO project).

Some of the parents also pointed out this issue during the focus groups:

“The schoolbooks are from the 80’s and the children learn mainly from their notes. This doesn’t seem very modern to me. Also – there is a discrepancy between what is learned in school and that the students have to do in the company. (Parent group, DOMINO)

Yet,: 

"My daughter is pleased with the vocational school - her home teacher is responsible for practice and she’s definitely happy with what they teach." (Parent group, DOMINO)

“I think, that we are rather not prepared sufficiently enough for the work in the company. They expect that by going into practice, we from the vocational schools, should be highly prepared, but we are not. We are just getting into things” (FG students – DOMINO)

“During the practice classes in school we wrote reports about how the machines function. We never worked with the machines…” (FG students– DOMINO)

Note: the statements above are commonly shared among students. Nevertheless, it should be noted that some of the students expressed their satisfaction with the knowledge and skills acquired at school.

“It was different for us, because at school they gave us circuit boards to work on, and afterword in the company it turned out to be the same. Only the machines were newer models.” (FG – DOMINO).

EXPECTED DIFFICULTIES

In the survey results about expected difficulties (for the schools not participating in the project) something central for the developing the dual learning method in the country could be found. It is not (only) the administrative or technical difficulties that the school representatives are worried about, nor the lack of mentors that are prepared enough or the work discipline of the students. The main issue for the vocational schools in Bulgaria is the lack of cooperation with the companies - which leads to uncertainty. This could be considered as one of the possible reasons that no significant steps are made on behalf of the schools in order to organize more dual classes or involve more students in dual learning programmes.

INFORMATION CHANNELS –
SOME OBSERVATIONS AND RECOMMENDATIONS

As with the companies (see above), the survey conducted among the vocational schools in Bulgaria shows that any information is widely needed about the possibilities that the dual learning method offers and/or the mechanisms of applying it in the educational system in the country.

- What is noticeable is that most of the schools seek out possible cooperation with the companies from the industry when it comes to developing the plan admission for the next school year. The fact that this is the most common mentioned speaks of two possible conclusions:
  - There is a gap between the vocational schools in Bulgaria and the business or cooperation is not sufficient enough between companies and the national educational system.
  - The educational system in Bulgaria seeks out direct contact with the business in order to implement dual education in Bulgarian schools. The mediation of the state institutions comes in second place.
- Another issue that is not clear enough for the vocational schools in the country seems to be the responsibilities on behalf of the companies when organizing the training in the workplace. The schools that do not participate in DOMINO mentioned this particular activity/responsibility twice as often as the DOMINO participating schools as one that they want to have more information about. On the other hand, DOMINO participating schools point out the need of more information about

There is an important difference, that could be noted while reviewing the answers of both samples:

- DOMINO schools need more information that concerns the process of interaction and cooperation between business and schools in order to improve what has been achieved so far. Special emphasis is placed on possibilities for supporting schools in organizing dual education programme.
- Schools outside the project are more interested in any information concerning the specifics of hiring interns with employment contract and the responsibilities of the schools and the companies when organizing the training at the workplace. Overall, the information needed by the nonparticipating school is related to the general prerequisites for developing a dual education program and this shows a rather poor level of knowledge about the dual education learning method among the Bulgarian vocational schools.

The most preferred channel of information seems to be direct contact. Work meetings and experience exchange is especially preferred by the DOMINO schools (90%). Trainings, conferences and seminars are also considered as a better method when it comes to information concerning the organisation of the dual learning curriculum. Internet resources and online
channels of information come at second place, although evaluated relative higher as a suitable way of informing regarding the organisation of curriculum by the schools outside the project. Any other way of informing, such as specialized publications, publications and information in the media are evaluated as rather not helpful as information channels by the school representatives (both DOMINO participants and other vocational schools).

**STUDENTS POINT OF VIEW:**

The majority of the students in the focus groups report being informed about dual education method at school.

When it comes to an extracurricular internship - one that is in a real company, opinions are controversial for the students outside DOMINO. There is no clear understating of what “dual learning means. In the companies "people do their jobs, they don't have time for you." (FG- outside DOMINO).

Some of the parents also report about disappointment among their children during the internship in the companies. The reasons are probably complex, but part of the problem is related to the organization of the work in the companies. The children cannot easily adapt into the role of a “working person”.

Parents of non-dual vocational high school students have heard the term "dual training" mainly in informal conversations, but generally say they are not familiar with the topic in detail. "I have heard it was paid", “Something is paid to the children and that is the difference between a regular vocational high school where they work without money” and "I heard that they study for two days, for the remaining three days you they to work somewhere - that's all I know.” (FG – parents outside DOMINO)

**ATTITUDES TOWARDS DUAL EDUCATION**

When asked if it is possible for them to organise a new dual training programme over the next school year (or more classes if they already have some) 28% of the respondents say that it is very likely and another 28% state that it is very unlikely. 28% is also the share of those who declare that there is no such possibility, 13% say that it is likely for them to organize a dual learning programme during the next school year (the remaining 3% do not know how to answer). A brief look through the results shows that the intentions for applying the dual learning method and the possibilities for a deeper penetration of this educational methodology in the national vocational system at this stage are rather low. Yet, the satiation for the DOMINO participants is quite different – 84% of the school representatives (DOMINO project schools) declare that it is rather likely to organize dual learning classes in their school for the next school year and 16% state that it is more unlikely to do so. This confirms the conclusions made for the companies so far or:
1) The project has positive effect on the development of the dual learning method in the country – the companies and the vocational schools which took part in DOMINO are both willing to continue developing the dual education in the country.

2) More information about dual education is needed in order to involve more schools in the project.

It should be noted that there are some disproportions regarding the way that the different national regions respond – Southeast and Southcentral Bulgaria and also Northwest Bulgaria. An additional effort is probably needed in these regions when it comes to promoting the advantages of the dual system since the share of the negative answers regarding the development of a new dual learning programme there seem to be relatively higher. This seems to be also the case with the schools in Hotels and Restaurants sector.

### Cooperation between Business and Educational System

The cooperation between the business and the educational system seems rather sufficient from the school representatives’ point of view. Both DOMINO participating and non-participating schools state that they have been in communication with the companies regarding hiring interns. The most commonly mentioned interaction with the business is having company representative in the school council (78%). 57% of the respondents also say that they have been participating in consultations with the companies regarding changes in the education curriculum and programmes. Furthermore, half of the surveyed schools have accepted applications for required workforce. This share equals two thirds for the DOMINO schools (65%) and 45% for the schools outside of the project. The levels of interaction with the business seems to be proportionately high in all schools regardless of the sector they are oriented in or their location in the country.

The interaction between companies and schools is evaluated high by the majority of the surveyed schools. This is one of the main differences registered during the survey – unlike the schools, the company representatives evaluate the interaction as rather poor. So, most of the vocational school may be communicating with the business, but not every company has been interacting with the vocational schools in the country. This was also confirmed by the pilot survey, conducted by Gallup International among companies that do not participate in DOMINO.

“It is not business job to write educational programmes. Business is doing business.”
(In-depth interview, Companies outside DOMINO)

“There is an absolute disconnection between business and education...We have a huge river that flows between education and business and there is no bridge”. (In-depth interview, Companies outside DOMINO)
Without neglecting what has been done so far, the results (both from the school segment and company segment) speak of the necessity of additional steps in terms of cooperation between educational system and business.

According to 47% of the surveyed school representatives the most appropriate way for organising such interaction seem to be the creating of a new partnership (organisation) between the companies and the vocational school. This was also the most common opinion shared among the business representatives. Therefore, more steps in this direction could be considered as convenient for both sides when it comes to developing dual education in the country.

**Measures and Incentives**

When asked about the most urgent legislative measures that would resolve the problem with the lack of workforce in the Bulgarian industry the results for the school segment of the survey are similar to those registered over the survey with the companies. The largest share of the surveyed school representatives (61%) consider the implementation of effective professional orientation in an early age as the most appropriate measure. Changes in the planned state admission (in order to increase the admission in vocational schools with technical specializations) comes in second place as an indispensable legislative measure that needs to be taken (58%). Support for the partnership between the business and the vocational educational system on local and national level is also highly evaluated as urgent measure by the surveyed school representatives (52%). Other suggested measures like widening the support for the dual education and involving the business in the development of the educational programmes are also recognized as important by the school representatives, but to a lesser extent.

It looks like the number of students has not changed significantly in the recent years – for 30% of the surveyed schools it is the same. Another third of the respondents declare that it grows considerably (11%) or slowly (21%). 25% have noticed a slight decrease of the number of their students, and another 12% say that the decrease in the recent years is considerable. There are no significant differences in the way that the DOMINO participants and the other vocational school respond. Yet, it seems that the DOMINO schools have better prospects of increasing their number of students.

Demographic tendencies are the common shared explanation for the deficiencies of young people interested in education in the vocational schools in the country. 54% of the respondents share this answer spontaneously. This means that the deficiencies in the number of students could deepen even more over the next years (as the results of the demographic crisis are ones that could be seen and/or felt even more years from now).

The lack of an effective system for forecast of the needs of the labour market, inadequately structured national plan for admission, competition of other schools etc. (34%) and unfavourable mindset models and expectations of the parents and the children (33%) are
also among the main reasons for the lack of interest in vocational education in the country according the school representatives.

What stands out after a brief look through the answers of the question about the withdrawal of the children from the vocational schools is the fact that most of the reasons pointed out by the respondents are not financial nor are they related to worries about professional progress of the students. The main issues according to the school representatives are mostly related with long-term government policy, which once again speaks of the need of wider cooperation between the business, the educational system and the state institutions.

**STUDENTS’ POINT OF VIEW – RECOMMENDATIONS AND EXPECTATIONS:**

Most of the students outside the project are willing to try dual education method, but do not show high levels of trust in its positive outcomes.

“If it’s done properly, maybe it’s OK” (FG- students outside DOMINO)

“Sounds well, but it depends on the payment” (FG- students outside DOMINO)

The parents seem to be more fond of the idea for dual education and highly support its wider implementation in the vocational schools in the country.

- For financial and other reasons part of the students are already working after their 10th grade. The advantages of the dual learning is in the fact that they will still work and earn money, but will also gain practical knowledge. They will attend school more regularly and will not leave studying behind due to other work commitments.
- Only one parent stated that he would not recommend the dual form - with the argument that the material incentive would demotivate students to continue their development and study at university.

“I’m 100% “pro”. If I knew there was something like that...my son should be in dual learning programme by now. He has been working 6 hours per day since the middle of last year, but not in the speciality he is studying. I want my son to work instead of wasting his time on the streets when the lessons end at noon. After school he is at his workplace at 14:00 and then I take him home after work. For me this dual form of learning is great, especially if they really learn something.” (FG – parents, outside DOMINO)

In general, all the students who took part in the project, would recommend it to their friends, but with some additional recommendations.

“Yes, but only if the work in the company is connected with the speciality. We should not do anything else.” (FG – DOMINO students)

“Yes, we had a contract with Switzerland, in the 9th grade we took something like a scholarship, they were precise. Yes, I would.” (FG – DOMINO students)
“Well yes, because dual training gives you the opportunity to study and work.” (FG – DOMINO students)
“I share the opposite opinion. Our scholarship was often delayed, we only had them twice a year – in the end of the year. We were not particularly prepared after having dual education in the company. We can’t start working right after, there are subtlety of the craft we don’t know about.” (FG – DOMINO students)

- All parents participating in the focus groups would recommend dual training for other parents whose children are currently applying in vocational schools.
- As an idea, dual training has no drawbacks - the parents' view is that the listed problems are a defect in the realization of the idea in practice and could be eliminated.

Recommendations:

- increasing / observing the set number of working days and hours - "one day in 11th grade is not enough" (FG – DOMINO parents)
- real/actual involvement in the work process "because they lose them as potentional workers, the children lose motivation", "the companies should be more correct and really train them" (FG – DOMINO parents)
- rotation of students in different companies "I think there should also be some company - student rotation, so that the children could see more things, more companies, more organizations." (FG – DOMINO parents)
- more dual-specialty courses “so they can choose”. (FG – DOMINO parents)