Scenarios and strategies for vocational education and training in Poland

Final national report, Phase 2

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Executive summary

The report summarises outcomes of the first stage of the scenario project carried out in 1999 and finalised in early 2000, and presents results of its second phase implemented in 2000-01. Poland participated in the project with six Member States of the European Union (Austria, Germany, Greece, Luxembourg/Belgium, the United Kingdom) and five countries of central and eastern Europe (the Czech Republic, Estonia, Hungary (1), Poland, Slovenia). The scenario project was developed by the European Centre for the Development of Vocational Training (Cedefop) in Thessaloniki, in cooperation with the European Training Foundation in Turin and the Max Goote Expert Center of the University of Amsterdam. The goal was to investigate possible scenarios for developing of initial and continuing vocational education and training in Europe. The scenarios developed and accompanying strategies should serve as tools to improve understanding of vocational education and training systems in its various contexts and should constitute a good basis for advising decision-makers at national as well as European levels.

For all countries in the project, the point of departure (i.e. the information gathering techniques) was the same, but results could vary. Quantitative data (quantitative research) was collected basing on questionnaires (the first phase of the project). Qualitative research was the dominant component of Phase 2, i.e. interviews and discussions in the format of national seminars (present in both Phase 1 and Phase 2). The project covered vocational education and training viewed from three perspectives (contexts): (a) economy and technology, (b) employment and labour market, (c) training, skills and knowledge.

In the first phase of the Polish research, questionnaires covering the three contexts were sent out to about 500 persons from 10 categories defined in project assumptions. In each context, respondents were asked to score and comment on the importance and likelihood of 23 trends and relevance and the most important actors for 20 strategies. Statistical analysis of the data on trends collected in the course of the first stage of the project resulted in identification of statistically significant factors and developing scenarios based on dominant factors. The Polish research team used this methodology to create scenarios for two contexts: employment and labour market and training, and skills and knowledge. The second part of the first stage research was analysis of data on strategies and actors. The most interesting result was identifying sets of strategies with a very high approval level. In context (a), these were strategies focusing on problems decisive for the future of VET, such as continuing education, forecasting labour market needs, dialogue between VET stakeholders. In context (b), strategies dealing with counteracting unemployment, social exclusion and adaptation of VET curricula to labour market needs prevailed. The most accepted strategies in context (c) were those dealing with developing new learning methods and techniques and those stimulating individuals to greater activity in education and personal development.

In all three contexts, Polish respondents recognised the State, local/regional governments and VET providers as the most important VET actors. In context (c), VET providers were considered the second most important actors, in accordance with traditional perception of their role. These results

(1) Hungary did not take part in the second phase.
demonstrated the traditional way of thinking of Polish respondents on organisation of the VET system. The role of the European Union agencies was in many cases treated as an extension to the role of State institutions, especially in international cooperation. The European Union agencies were not so often perceived as the potential actor in solving internal social problems. In general, the EU role was underestimated by Polish experts and seen narrowly.

The second phase of the project was launched to improve the structuring, consistency and robustness of scenarios and strategies and to develop tools to stimulate the application and use of scenarios in the policy discussion and in decision-making processes. Based on the results of the first phase and additional interviews with experts and discussion at national and European levels, the Polish research team proposed two scenarios covering the three contexts under discussion. The Polish scenarios were developed on the assumption that Poland needs quick adjustment of its institutional and structural conditions to meet the requirements of the European environment. Only such changes may ensure continuous economic and social development to allow, in the long-term, a considerable reduction of the gap between development levels of Poland and more developed States such as, the European Union countries. Therefore two macro-economic scenarios of Poland’s development prepared by the ‘Poland 2000 plus’ Forecasts’ Committee under the auspices of the Polish Academy of Sciences were proposed as the starting point. The first scenario assumes slower changes linked with ad hoc policies, the second is based on quicker changes accompanied by more proactive policies.

The final step of the research was analysing the strategies. At first, the Polish research team proposed three sets grouped in accordance with the three discussed contexts. Next they were grouped into four clusters:

- **Individuals** – consisting of strategies aimed at individuals in their different roles, as students, employees and unemployed.
- **Enterprises** – comprising strategies aimed at enterprises, developing and strengthening their role in education and training processes.
- **Networking/developing partnerships** - dealing with actions aiming at developing networks and partnerships among VET actors, especially employers and employees and VET organisers.
- **Proactive policies** – including strategies related to proactive policies aimed at solving social problems and meeting future needs resulting from EU integration and globalisation of the economy.

Analysis of the relevance and robustness of strategies indicated the most relevant for the two scenarios. Two strategies received the highest scores:

- involving the social partners and, in particular, employers’ and employees’ organisations in vocational education and training development;
- strategy based on developing a new model of employee: ready to be employed, flexible and enterprising.

The Polish research team considers the scenario project a very valuable experience and learning process. However, the crucial factor for its success will be - in our opinion, also shared by participants of the national seminar - wide dissemination of its results and creation of an appropriate forum to discuss its outcomes and recommendations.
1. Project goal and design

The project covers vocational education and training viewed from three perspectives (contexts):

(a) economy and technology,
(b) employment and labour market,
(c) training, skills and knowledge.

Fundamentally, the major objective of the project relates to two issues:

• integration of research, studies and thinking done so far in many European countries,
• use of a new (or modified) research methodology, to cater for the needs of future comprehensive vocational education and training planning.

The selection of countries participating in the first phase of the project is a good reflection of the intentions and objectives of the initiators of the ‘scenario project’, namely Cedefop/Thessaloniki, the European Training Foundation/Turin and the Max Goote Expert Centre of Amsterdam University (acting as the scientific and technical coordinator). The overall purpose was to develop and deepen alternative scenarios for future vocational education and training. Ten countries participated:

• five Member States (regions) of European Union (Austria, Germany, Greece, Luxembourg/Belgium, the United Kingdom),
• five countries of central and eastern Europe (the Czech Republic, Estonia, Hungary, Poland, Slovenia).

The project brought together five countries of western Europe, characterised (with the exception of Greece) by the highest indices of social and economic development, and five countries that until recently had operated in entirely different social and political circumstances. The latter group of countries has at least one common feature: all are leaders in the process of transformation towards democracy and market economy, and now stand the highest chance of fast European Union accession.

This selection of countries-project participants very well reflects the objective of investigating whether different regions of Europe are like-minded (or differ) in vocational education and training policies. If they do vary in their opinions, the project provides a platform for developing various strategies which – when refined in the course of discussions, national and international seminars – could be approximated and serve as a basis for a common, consistent policy for all European countries.

Besides the aim of creating alternative development scenarios for future vocational education and training, the project pursues another important objective of developing the relevant methodology. Thus existing strategies, being a final result of a series of earlier actions, can turn into a tool of discussion and strategic planning. For all countries in the project, the point of departure (i.e. the information gathering techniques) was the same, but results could vary. Quantitative data (quantitative research) are collected based on questionnaires (the first phase of the project). Qualitative research is the dominant component
of Phase 2 namely interviews and discussions in the format of national seminars (present in both Phase 1 and Phase 2).

Nevertheless, the purpose of the project is not only to develop scenarios, which will serve as a tool for better understanding of vocational education and training in different contexts, but also to link the scenarios with strategies, to initiate a ‘strategic dialogue’.

The dialogue, in turn, is a basis for decision-making in both European member and candidate countries. In this sense, the project is not geared towards predicting the future, but rather towards highlighting factors of strategic importance in the future.

Based on the results of Phase 1, the project received a lot of attention in Poland for two reasons. First, Poland is a typical ‘country in transition’ from one system to another. The transition process obviously uncovers many problems unknown so far, making planning for the future even more difficult. But obviously, the rapid pace of social and economic change makes future-oriented approach a must of today. Second, the project applies an interesting methodology. In itself, the methodology makes references to other methods, yet it also paves the way for seeing vocational education and training in Poland in an entirely new light. At the same time, the methodology provides good insight into how the same issues are perceived by experts from various countries.
2. Results of Phase 1

2.1. Data collection for Phase 1 and characteristics of the Polish sample

The questionnaires covering three contexts were sent out to about 500 persons from 10 categories defined in project assumptions. All three questionnaires were sent to each respondent leaving them to decide which and how many questionnaires to fill in. Thus, in total about 1500 questionnaires were sent out. In each context, respondents were asked to score and comment on the importance and likelihood of 23 trends, and the relevance and most important actors for 20 strategies. The Polish research team decided not to include any additional national trends and strategies.

In total, 104 of 498 (21.7 %) respondents sent back 246 questionnaires (16.5 %), 81 for context (a), 78 for context (b) and 87 for context (c).

Almost half the Polish respondents (49.1 %) were aged between 41 and 55. The most numerous was the category 41-45 years old (20.1 %). It is worthwhile to note that the category of young people (25-30 years old) was also well represented. In comparison to other participating countries, Polish age distribution was on the average level. About 29 % of respondents were below 40 and about 35-36 % fell into the categories 41-50 and over 59. For comparison, in the case of the UK and Czech Republic persons over 50 constituted about 50 % of respondents and persons below 40 about 12 % (the ‘oldest’ age structures in participating countries).

The gender of respondents was indicated in 184 questionnaires – over 25 % did not respond to this question (!). The majority (71.2 %) were men. This percentage is a bit higher than for 10 countries (67.8 %).

The level of education was indicated in 232 questionnaires. The vast majority (93.1 %) possessed ISCED level 6, only 3 % higher vocational education (ICSED 5) and 3.9 % lower levels (ISCED 4 and ISCED 3). The lowest categories (ISCED 1 and 2) did not appear among Polish respondents. The Polish sample was characterised by a similar high level of education as the Czech Republic and Estonia and less so, Hungary.

As concerns affiliation of respondents the Polish sample was rather untypical compared to the other nine countries. The main difference was that almost one third of respondents represented higher schools and research institutes (in 10 countries – about 12 %). Civil servants at different levels were also well represented (~27 %). In the majority of other countries two groups dominated: civil servants (maximum: Slovenia, Germany – 26-27 %) and training providers (18 % for 10 countries, maximum: Luxembourg/Belgium – 62.9 %). Enterprises in Poland were underrepresented – only 2.9 %.

The majority of Polish respondents came from the public sector (67.3 %). This figure was close to respective results for the 10 countries. The highest percentage of public sector employees was reached in Hungary: 81.8 %. Only In Luxembourg/Belgium the private sector slightly dominated.
The sample of Polish respondents was characterised by relatively strong representation of large enterprises (over 1000) – 24.1%. Small enterprises with 10 to 49 employees and medium-sized ones with 100 to 249 employees, were also quite well represented (19.4% both). In other countries the same groups of enterprises dominated though the most numerous group constituted small enterprises (10-49 employees). Large enterprises came in second place.

2.2. Analysis of trends

Respondents were asked to assess importance and likelihood of 23 trends for each of the three contexts. Both importance and likelihood were scored on a five-point scale (I).

Context (a): Economy and technology

The average score of trends importance was fairly high. The means varied from 3.93 to 4.55. Trends with the highest scores were:

- t02 – Companies will have to restructure continuously (4.55);
- t21 – People are less and less likely to follow a single, secure and stable career path throughout their working life (4.46);
- t05 – Developments in information and communication technologies (ICT) will link people in new ways (4.45);
- t01 – Increasingly, international competition will become knowledge intensive (4.35).

The following trends were assessed as the least important:

- t10 – Small and medium-sized enterprises (SMEs) will be in the best position to innovate in technology (3.63);
- t11 – Large and small companies will become more interdependent (3.67);
- t19 – Innovation-seeking companies will work more closely together in the area of in-company training (3.71).

Polish results were close to European ones: the group of the four trends with the highest scores was identical. Trends with the lowest scores were also similar.

The average likelihood was slightly lower than importance. The group of the most likely trends consisted of:

- t05 – Developments in information and communication technologies (ICT) will link people in new ways (4.50);
- t02 – Companies will have to restructure continuously (4.47);

(1) Likelihood: almost impossible by 2010, unlikely, as likely as not, likely, almost certain by 2010; Importance: insignificant/trivial, unimportant, not important/not unimportant, important, very important.
• t21 – People are less and less likely to follow a single, secure and stable career path throughout their working life (4.40).

Trends with the lowest likelihood scores were:
• t04 – Economic growth will lose its dominance (3.0);
• t19 – Innovation-seeking companies will work more closely together in the area of in-company training (3.09);
• t10 – Small and medium-sized enterprises (SMEs) will be in the best position to innovate in technology (3.26).

The Polish results were close to European ones. The most significant difference was registered for trend t19 assessed 0.5 percent point higher on the European level.

Context (b): Employment and the labour market

Again, the importance of trends was assessed, on average, highly. The means varied from 3.29 to 4.42. As the most important, Polish experts assessed the following trends:
• t21 – Social and communicative skills will be more highly valued in employment (4.42);
• t22 – Increasingly, the workforce will polarise into those with high levels of qualification and those with low levels of qualification (4.26);
• t17 – Knowledge management will become generally accepted (4.27);
• t08 – Unemployment among young people under 25 will increase, compared to other age groups (4.19);
• t16 – The mobility of labour will increase (4.19).

The group of the least important trends consisted of:
• t04 – The ageing of employees will inhibit change and innovation (3.29);
• t19 – Young people will tend to need a longer period for making the transition from school to work (3.5);
• t18 – The social exclusion of certain ‘at risk’ and disadvantaged groups will continue, and even intensify (3.65);
• t14 – Collective labour agreements will have less significance (3.64);
• t06 – Hierarchies will become much less pronounced (3.48).

The means for likelihood varied from 2.81 to 4.47. The most likely, in the opinion of Polish respondents were the following trends:
• t21 – Social and communicative skills will be more highly valued in employment (4.47);
• t22 – Increasingly, the workforce will polarise into those with high levels of qualification and those with low levels of qualification (4.21);
• t16 – The mobility of labour will increase (4.21);
• t23 – People will develop new combinations of education and training over the course of their careers (4.08).

The least likely were the following:
• t04 – The ageing of employees will inhibit change and innovation (2.81);
• t10 – The attention paid to social cohesion will increase (3.07);
• t18 – The social exclusion of certain ‘at risk’ and disadvantaged groups will continue, and even intensify (3.15);
• t19 – Young people will tend to need a longer period for making the transition from school to work (3.23);
• t06 – Hierarchies will become much less pronounced (3.24).

Scores for trends t18 and t19 were significantly lower than European data (3.65 and 3.83, respectively).

There was evident positive correlation between ‘importance’ and ‘likelihood’ for the majority of trends. Trends t04, t18, t19, t06 listed in both cases as characterised by the lowest scores (means) had respectively the correlation coefficients 0.566; 0.543; 0.495; 0.678. The trend with the highest scores (t21) was also strongly correlated (0.550). The highest correlation (over 0.7) was found for ‘importance’ and ‘likelihood’ in the case of trends t02 and t07 (Specific technical skills will be in greater demand and an ageing population will enhance lifelong learning’).

Context (c): Training, skills and knowledge

In total, 1 963 responses were given (23 trends x 85-86 respondents). The mean value varied from 2.4 in the case of trend:
• t23 – Enterprises will provide training for more unemployed people, and have a role in their reintegration into the workforce and 2.76 for the trend;
• t01 – Developments in information and communication technology will mean that ‘school’ becomes less important;
• t 4.20 – 4.30 for such trends as;
• t21 – Vocational education and training programmes will become more varied and flexible;
• t03 – Individuals will take more responsibility for their own education and training;
• t12 – Training organised by the various sectors will become more important;
• t15 – Providers of VET will offer more individualised and differentiated courses and qualifications, often on a modular basis;
• t16 – Social and communication skills will gain in importance (4.31).

In general, one can conclude that vast majority of respondents assessed trends as likely or almost certain.
The percentage distribution of all responses was characterised by the following values: 1.7 % of all responses refer to almost impossible by 2010, 14.6 % - unlikely; 14.4 % - as likely as not, 46.7 % - likely and 22.6 % and 22.6 % to almost certain by 2010 (similar distribution was found for all countries, in total).

Among all trends the category almost certain by 2010 had a marginal character or does not appear at all. The as likely as not category dominated in the t01 - Developments in information and communication technology will mean that ‘school’ becomes less important, t11 - Formal education and training will remain important, in particular, for groups at risk of social exclusion and t23 - Enterprises will provide training for more unemployed people, and have a role in their reintegration into the workforce. It is worthwhile to add that trends 01 and 23 were assessed in a similar way by all participating countries.

The opinion as likely as not did not dominate in any trend, in contradistinction to the category likely which prevailed in 18 trends. Two trends were dominated by the opinion almost certain by 2010: these were t12-Information and communication technologies (ICT) will become a normal part of formal education and training and t16 - Social and communication skills will gain in importance.

As regards importance assessment, 1961 responses were given. The mean value varied from 3.54 (t01) to 4.43 (t12). The scores were less dispersed than scores referring to likelihood – this observation is confirmed by lower standard deviation values for each trend.

The distribution of scores was the following: insignificant/trivial – 0.7 %, unimportant – 4.2 %, not important, not unimportant – 14.0 %, important – 50.3 % and very important – 30.8 %. Similar tendency prevailed in all other countries: important and very important taken together 78.7 %.

The first three opinion categories did not dominate in the assessment of any trend. The last but one (important) prevailed in 19 trends (and in the trend t01 together with very important). In the category very important three trends predominated: t12, t16 and t20 (Information and communication technologies (ICT) will become..., Social and communication skills will gain in importance, Tackling social exclusion will receive higher priority) in an analogous way as in other participating countries.

2.3. Construction of scenarios

A principal component analysis was applied in each context for the responses of ‘importance’. The number of factors was selected on the ground of the screen plot (eigenvalues versus their order). Varimax rotation with Kaiser normalisation was performed to diversify loadings in comparison to their initial values. A number of factors were identified using the criterion of the relatively large interval between subsequent values. As a cut point was not always sharp, some alternative choices were examined to identify solutions, which provided the best interpretation of data. To determine the reliability of scales, the Cronbach’ alfa coefficient was used. The selected factors were correlated next with ‘likelihood’ scores to make the choice of those factors, which can be used in scenario-constructions.
Context (a): Economy and technology

Statistical analysis of data did not provide any sufficiently interpretable results, in particular reliable and convincing scenarios.

Context (b): Employment and the labour market

Analysis of data resulted in identifying three components:

Component B1 –’Flexibility and mobility’

Flexibilisation of labour will continue.

Hierarchies will become much less pronounced.

Training will be limited to permanent staff only.

Flexibility of labour will fit more and more comfortably with people’s life style.

The migration of labour will increase.

Collective labour agreements will have less significance.

The labour market will continue to be subject to rapid change, so broad competences will be more and more in demand.

The mobility of labour will increase.

Knowledge management will become generally accepted.

People will develop new combinations of education and training over the course of their careers.

Mostly positive developments. Flexibilisation of labour force will increase in accordance with labour market needs and people’s life styles. Mutual adaptability of labour and the workplace will develop: broad competences will enable migration and mobility of labour, and enterprises will develop new internal training systems and flexible organisation structures.

Component B2 ‘Polarisation, specialisation and rigidity’

Specific technical skills will be in greater demand.

The ageing of employees will inhibit change and innovation.

The concept of the 'Learning Organisation' will be widely accepted and applied.

Unemployment among young people under 25 will increase, compared to other age groups.

The government will continue to play an important role in vocational education and training.
The social exclusion of certain ‘at risk’ and disadvantaged groups will continue, and even intensify. Young people will tend to need a longer period for making the transition from school to work.

Increasingly, the workforce will polarise into those with high levels of qualification and those with low levels of qualification.

The Labour market will require more specific technical skills. Negative phenomena such as social exclusion, unemployment among young people, difficult transition from school to work, polarisation of the workforce into those with low and high levels of qualification will grow. The government will play an important role in VET.

Component B3 ‘Globalisation and security’

The workplace will become more multicultural.

An ageing population will enhance lifelong learning.

The attention paid to social cohesion will increase.

There will be a ‘brain drain’ to western Europe.

Social and communicative skills will be more highly valued in employment.

Globalisation of the labour market will take place. There will be a ‘brain drain’ to western Europe. At the same time social and educational security will grow (social cohesion, lifelong learning).

The scenario construction was based on components B1 and B3.
<table>
<thead>
<tr>
<th>Low degree of flexibility and mobility’</th>
<th>Low degree of globalisation and social security</th>
<th>High degree of globalisation and social security</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Autarchy (Belarus like case)</td>
<td>Closed to globalisation, international cooperation and European integration. Internal stagnation both on the labour market and at the workplace. Narrow competences unable mobility of labour. Low level of social and educational security.</td>
<td></td>
</tr>
<tr>
<td>2. Colonial model</td>
<td>Open to globalisation but internally not prepared to cope with international competition. High degree of social security enabled by introducing imported systemic solutions but without mature internal conditions. ‘Brain drain’ of qualified labour force to western Europe. The context, which resembles the former, GDR case after unification with West Germany.</td>
<td></td>
</tr>
<tr>
<td>3. Unmet readiness</td>
<td>High degree of flexibility of labour force. Mutual adaptability of labour and the workplace. Enterprises develop their own internal training systems and flexible organisation structures. Neo-liberal solutions. Low level of social security and no support for lifelong learning activities for elderly people. Limited globalisation. Possible in the case of lack of internal support for European integration or unmet readiness for integration on the side of the EU.</td>
<td></td>
</tr>
<tr>
<td>4. Full synergy</td>
<td>Context in which there is full synergy between internal and external factors deciding upon labour market development. Flexibilisation of labour force increases in accordance with labour market needs and people’s lifestyles. Mutual adaptability of the labour market and the workplace develops. Globalisation will increase social security though the economy can be affected by the ‘brain drain’ to western Europe.</td>
<td></td>
</tr>
</tbody>
</table>
Context (c): Training, skills and knowledge

Statistical analysis resulted in grouping the following five components:

Component C1 ‘Decentralisation and flexibility of the VET system’

Vocational education and training will become more outcome-based.

Specialist and technical skills will gain in importance.

Regionalisation will have a major impact on vocational education and training.

Decentralisation will have a major impact on VET provision.

SMEs will benefit from an increase in the transfer of knowledge, through the agency of education and training providers.

Vocational education and training programmes will become more varied and flexible.

In-company training will become more important.

Vocational education and training will become decentralised to a higher degree. The importance of regional and local training bases will increase as well as the flexibility and variety of training curricula.

Component C2 ‘Permanent adaptation of VET providers to market needs and changing environment’

Training organised by the various sectors will become more important.

Information and communication technologies (ICT) will become a normal part of formal education and training.

Stronger links will be formed between vocational training providers and other educational institutions.

Providers of VET will offer more individualised and differentiated courses and qualifications, often on a modular basis.

Knowledge management will be subject to rapid change and renewal.

To keep pace with changes in the training environment, training providers and organisers will offer more diversified and individualised training programmes. The training programmes organised by different sectors will become more important, the links between VET organisers and enterprises will become closer.

Component C3 ‘The social role of vocational education and training’

Vocational education and training will become more integrated with other policies and strategies.
Formal education and training will remain important, in particular, for groups at risk of social exclusion.

Tackling social exclusion will receive higher priority.

Enterprises will provide training for more unemployed people, and have a role in their reintegration into the workforce.

The VET system will be focused to a higher degree on unemployed and groups at risk of social exclusion.

Component C4 ‘Importance of non-vocational and non-formal education and training’

Developments in information and communication technology will mean that ‘school’ becomes less important.

Older employees will be encouraged and motivated to participate in vocational education more often.

Social and communication skills will gain in importance.

General and transferable skills will gain in importance.

Knowledge and skills gained outside formal training (non-formal learning) will be better recognised.

In parallel to development of various VET forms, more and more attention will be paid to general knowledge and skills, interpersonal skills. The importance of non-formal education and training will grow.

Component C5 ‘Financing VET from private resources’

Individuals will take more responsibility for their own education and training.

Expenditure on vocational education and training will increase.

Individuals will take more responsibility for their own life and education. It will result in growing outlays for education and training from private resources, in parallel with growing public spending.

The components C1 and C2 were selected for the scenario construction.
<table>
<thead>
<tr>
<th>Low degree of decentralisation needs and curricular flexibility</th>
<th>Low degree of decentralisation needs and curricular flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low degree of permanent adaptation of VET providers to market needs and changing environment</strong></td>
<td><strong>2. Clash between needs and level of adaptation of training providers</strong></td>
</tr>
</tbody>
</table>
| 1. Traditional system  
Context in which there is no need for decentralisation and curricular flexibility. It manifests features of a centrally planned and regulated system and resembles the communist-like system both in terms of ideology and practice. The dominant role in vocational education and training is played by training providers. This situation does not force them to upgrade curricula, contents and forms of training making them more attractive. The context in which stagnation factors predominate the change-oriented ones. | Context in which there is strong demand for decentralisation and curricular flexibility, and low level of responsiveness of VET providers to change. It generates some grass-roots initiatives, tendency to self-education, development of non-formal learning. Lack of competition and monopolistic position of some VET providers leads to training of people not able to find a job (production of future unemployed). Foreign VET providers can be encouraged to enter the Polish training market. |
| **High degree of permanent adaptation of VET providers to market needs and changing environment** | **3. Unmet readiness** |
| 3. Unmet readiness  
Context in which VET providers are ready for change and ready to respond to changing demands but there is lack of social needs for decentralisation and curricular flexibility. Such a system can ensure high level of training and education in decentralised forms of VET. At the same time there is lack of mechanisms enforcing upgrading of qualifications and competition on the labour market. | 4. Need for decentralisation accompanied by readiness of VET providers for change  
Context in which there is a high correspondence and synergy between demand for decentralisation and readiness of VET providers to change. It ensures effectiveness and flexibility of VET system functioning as wide scope for training needs met by rich and diversified educational services market. In this context, individual costs of training are low. |
2.4. Strategies and responsible actors

The vast majority of Polish respondents considered the strategies ‘relevant’. However, in each of the contexts several strategies were assessed by a significant number of respondents as ‘not relevant’.

In context (a) the strategy s05, encouraging a ‘hands-off’ approach to the regulation of the content and use of international electronic networks, such as the Internet was rejected by 39.5% of experts. It is possible that vague formulation of this strategy contributed to its rejection by such a numerous group of experts.

In context (b), the only strategy classified as ‘not relevant’ by more than 10% of experts was s14: Introduce into the system of vocational education and training a new (assistant) level, one that can help to give recognition to lower-level job.

In context (c), 11% of respondents rejected the strategy s07 - emphasise that the vocational education and training sector plays an important role in achieving (or maintaining) social solidarity, and in combating social divisions and social exclusion. It is likely that the character of this strategy biased attitudes of respondents in this case.

In general, analysis of data based on relevant/not relevant category has not resulted in any reliable and interesting conclusions. The level of not relevant answers was too low to perform the factorial analysis. Some cases with higher scores originated rather in vague wording or the slogan-like character of questions.

At the same time, in each of the contexts, there were several strategies with a very high approval level. In context (a) these were strategies focusing on problems decisive for the future of VET such as continuing education, forecasting labour market needs, dialogue between VET stakeholders. In context (b), the strategies dealing with counteracting unemployment, social exclusion and adaptation of VET curricula to labour market needs prevailed. The most accepted strategies in context (c) were those which dealt with developing new learning methods and techniques and those stimulating individuals to greater activity in education and personal development.

In all three contexts respondents recognised the State, local/regional governments and VET providers as the most important VET actors. In context (c), VET providers were considered as the second most important actors, in accordance with traditional perception of their role. The results demonstrated the traditional way of thinking of Polish respondents concerning organisation of the VET system. It is certainly, at least to some extent, the legacy of the former socio-political system, characterised by the passiveness of society.

The role of the European Union agencies was in many cases treated as an extension to the role of State institutions, especially in international cooperation. The European Union agencies were not so often perceived as the potential actor in solving internal social problems. In general the EU role was underestimated by Polish experts and seen narrowly.
3. Poland's position in the international context

3.1. The socio-economic context

The systemic reforms implemented in Poland during the first half of the 1990s resulted in consistent economic growth since 1992. In comparison with other central and eastern European countries, Poland benefits from three characteristics:

- the smallest decrease of GDP during the transformation process;
- the shortest period of negative economic growth;
- the fastest return to the level of GDP before 1989. In 1995, the level of GDP exceeded that of 1989 for the first time.

In the annual progress report on Poland in November 2000, the European Commission stated that Poland was a functioning market economy that should be able to cope with the competitive pressure and market forces in the EU in the short-term perspective, provided the ongoing reform effort be continued and brought to a successful conclusion. The report emphasised the macroeconomic stability of Poland and the growth rate of the economy characterised as impressive. Real GDP grew on average by 5.5% per annum during the second half of the 1990s, inflation was sharply reduced and average living standards improved considerably. However, the growth of the Polish economy between 1999 and 2000 slowed down compared to previous years. Yet it was still higher than in the majority of other central and eastern European countries and all the EU Member States with the exception of Ireland. Table I presents the key indicators of socioeconomic growth in Poland between 1996 and 2000.

Table 1: Poland: key socioeconomic indicators between 1996 and 2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (growth)</td>
<td>6.0</td>
<td>6.8</td>
<td>4.8</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>GDP per capita at FX rates (in euro)</td>
<td>2500</td>
<td>2900</td>
<td>3300</td>
<td>3700</td>
<td>N/A</td>
</tr>
<tr>
<td>GDP per capita at PPP</td>
<td>6224</td>
<td>6889</td>
<td>7287</td>
<td>7806</td>
<td>N/A</td>
</tr>
<tr>
<td>Industrial output (growth)</td>
<td>8.3</td>
<td>11.5</td>
<td>8.7</td>
<td>3.6</td>
<td>6.8</td>
</tr>
<tr>
<td>Production structure (% of gross added value)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>agriculture</td>
<td>6.4</td>
<td>5.5</td>
<td>4.8</td>
<td>3.8</td>
<td>3.3</td>
</tr>
<tr>
<td>industry (excluding construction)</td>
<td>30.1</td>
<td>29.3</td>
<td>27.6</td>
<td>27.7</td>
<td>27.8</td>
</tr>
<tr>
<td>construction</td>
<td>7.4</td>
<td>7.9</td>
<td>8.7</td>
<td>8.9</td>
<td>8.3</td>
</tr>
<tr>
<td>services</td>
<td>56.1</td>
<td>57.2</td>
<td>59.0</td>
<td>59.6</td>
<td>60.6</td>
</tr>
<tr>
<td>Price index of goods and services annual average</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December to December</td>
<td>19.4</td>
<td>14.8</td>
<td>11.6</td>
<td>7.4</td>
<td>10.4</td>
</tr>
<tr>
<td>Unemployment rate at BAEL</td>
<td>12.0</td>
<td>10.7</td>
<td>11.1</td>
<td>15.9</td>
<td>16.0(1)</td>
</tr>
<tr>
<td>Balance of State budget (% of GDP)</td>
<td>-3.3</td>
<td>-2.6</td>
<td>-2.4</td>
<td>-2.0</td>
<td>-2.6</td>
</tr>
<tr>
<td>Public debt to GDP (%)</td>
<td>47.9</td>
<td>46.9</td>
<td>42.9</td>
<td>44.5</td>
<td>42.5</td>
</tr>
<tr>
<td>Current account deficit to GDP (%)</td>
<td>1.0</td>
<td>3.2</td>
<td>4.3</td>
<td>7.5</td>
<td>6.5</td>
</tr>
<tr>
<td>Foreign debt Gross in million EUR</td>
<td>31023</td>
<td>33504</td>
<td>41220</td>
<td>49116</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative to exports</td>
<td>112.7</td>
<td>103.4</td>
<td>103.6</td>
<td>128.2</td>
<td></td>
</tr>
<tr>
<td>Foreign investment % GDP</td>
<td>3.1</td>
<td>3.4</td>
<td>4.0</td>
<td>4.7</td>
<td>N/A</td>
</tr>
<tr>
<td>in man. EUR</td>
<td>3542</td>
<td>4328</td>
<td>5678</td>
<td>6821</td>
<td></td>
</tr>
</tbody>
</table>

(1) Fourth Quarter.
Despite significant progress achieved in the 1990s, the difference between the development of Poland and the EU Member States remains sizeable. In 1999, GDP per capita measured relative to the purchasing power parity (PPP) stood at USD 7900 in Poland (or USD 4100 measured by FX rates). This constitutes only about 37% of the average GDP per capita (PPP) in the European Community (in 1990 the corresponding figure was a mere 30%). The developmental gap between Poland and the least developed EU Member States, i.e. Greece and Portugal, remains to be large as their average GDP relative to that of EU (at PPP) was, respectively, 69.8% and 72.7% in 1998. The two countries, however, have attained lower economic growth (by 1-1.5 percentage points) than Poland in recent years.

A serious problem in Poland is a regional diversity of economic development. At the end of 1997 Poland’s most prosperous region, the Mazovia Voivodship, reached 49% of the average in the regions of EU Member States, whereas the poorest Polish region – the Swietokrzyskie Voivodship – stood at a mere 24%.

The GDP (value added) structure in Poland departs from that of EU Member States. The share of agriculture and forestry, although decreasing, is still quite high in Poland (4% as opposed to 2.3% in the EU in 1999), but less than in Portugal (5%) and Greece (16%). At the same time the sector shows a high level of employment, more than 27% of the total workforce in the domestic economy, as compared to about 5.5% in the EU. The share of industry and construction in generating added value in Poland constitutes about 36% (as compared to about 31% in the EU), while services account for about 60% of GDP (about 66% in the EU). The private sector generates about 61% of gross added value (1998) and employs about 71% of the workforce.

Inflation was a serious problem in the Polish economy in the latter half of the 1980s and in the early stage of transformation. As a result of rigorous monetary and financial policy the inflation rate was systematically reduced to the annual average of 7.3% in 1999. In the first two quarters of 2000 inflation grew significantly and reached a two-digit figure. The indications are, however, that this was a temporary development due to the coincidence of several negative circumstances such as a temporary increase in the prices of foodstuffs (due to poor crops), crude oil and fuels in the global markets. At the end of 2000, inflation had fallen back to 8.5%. The inflation rate in Poland remains relatively high compared to the average in the EU (1.3%) and the other candidate countries.

In the past five years there has been significant growth in the volume of investment (2.4% in 1993 went up to 22.1% in 1997), which was several times higher than GDP growth over the period. In 1998, the share of investment in GDP was about 21%, compared to only 17% in 1996. The share of accumulation of GDP is higher in Poland than in the majority of EU Member States (26.4% in 1998 compared to 14%-25% in EU Member States), yet is seems too low given the huge developmental needs of the Polish economy.
Particularly low is the level of expenditure earmarked for R&D (0.72% compared to 2% in the EU). Expenditures in developing and modernising transport infrastructure and higher education are also relatively low (despite their systematic growth).

A potential threat to the stability of the system of public finance is the current account deficit, which has been growing in recent years. The deficit started to incline in 1997 and reached 7.5% of GDP in 1999, which marks the highest level among OECD countries. The current account deficit is primarily attributable to the foreign trade deficit in Poland, which reached USD 18.5 billion in 1999. This is due to a low level of exports from Poland. In 1998, the value of exports per capita was USD 730, compared to USD 1600 in Slovakia, USD 18000 in Hungary, USD 2200 in the Czech Republic and 4200 in Slovenia. The share of Poland in global trade remains on the low level of about 0.9% in imports and 0.5 in exports in 1998, while the commodity structure is unfavourable to Poland. The share of exports in GDP amounted to about 24% in Poland, compared to 16–75% in EU Member States. Poland’s biggest trade partner is the EU, with 68% exports and over 65% imports. In 1998, the current account deficit reached 4.3% of GDP while the inflow of foreign investment to Poland has been growing each year. At the end of 1999, total foreign investment stood at about USD 39 billion, which was still lower per capita than in Hungary. Poland has attracted 36% of total foreign investment in the region (the Czech Republic 17%, Hungary 8%, Russia 14%, Rumania 7%, and Croatia 4%).

At the end of the second quarter of 2000, more than 2.8 million people were unemployed, which indicates that the unemployment rate of 16.3% in Poland was significantly higher than in the EU. Between 1999 and 2000 the unemployment rate increased by five percentage points and approximated the level of 1993 which marked the maximum number of unemployed. Nearly 36% of those unemployed are young people under 25 years of age. Another disquieting aspect is the high number of long-term unemployed (more than 12 months), which now stands at 35.9%. Unemployment among women is higher than among men (18.3% and 14.6% respectively). The registered unemployed
constitute about 70% of the total figure. Unemployment in Poland shows regional diversity: it peaks at nearly 30% in the Warminsko-Mazurskie Voivodship, whereas in the Mazovia Voivodship it holds below 10%.

Chart 2. The unemployment rate in Poland and the EU.

Source: Eurostat (July-October 2000) and GUS (BAEL – II Q 2000).

It is estimated that due to low productivity of the agricultural sector, hidden unemployment in the rural areas is high and stands at about 1 million people.

3.2. Vocational education and training

The world, especially its better-off part, has already moved into the era of globalisation. The unprecedented development of technology over recent decades opens up immense opportunities for social development. However, this potential can only be realised when new technologies are put to proper use. Awareness of this fact has fuelled a ‘global race for knowledge’ (1). Noteworthy, the technology drive has been dominated by information science, communications and biotechnology.

The fusion of computing and communications – especially through the Internet – has broken the bounds of cost, time and distance, launching an era of global information networking. In biotechnology the ability to identify and move genetic materials across species types has broken the bounds of nature, creating totally new organisms with enormous but unknown implications. Both technologies are fuelling globalisation, opening new markets and giving rise to new actors.

Communications change economic competition, empowerment and culture, inspiring global conversation. Genetic engineering leads to complex links between farming and multinational pharmaceutical and agricultural industries.

Writing computer programs and revealing genetic codes ‘have replaced the search for gold, the conquest of land and the command of machinery as the path to economic power’ (2). Knowledge and information are the new asset: more than half of GDP in the major OECD countries is now knowledge-based.

Although significant progress has been achieved over recent decades on the level of education of Polish society, the results are still unsatisfactory, in particular when compared to the growing ratio of educated people in countries of western Europe. Even though from 1990 to 1999 the number of college and university students in Poland increased by 350 %, still only 7 % of the total population, and around 10 % of people aged 25 to 64, have a college or university degree (for the sake of comparison, in the age group of 25 to 64 years, the respective ratio was 26 % in the United States, and 22 % in the Netherlands) (3).

Secondary education, including vocational programmes, was the most problematic area of the educational system, hardly ever matched to needs of the present day. The reform being currently implemented in Poland seems to have picked the majority of challenges arising from the huge civilisational progress achieved in wealthier and more prosperous societies. Some elements of this reform are similar to ones already used in other countries. Others have no counterpart elsewhere.

When comparing systems of secondary education, a differentiating feature that immediately stands out is the structure of student base in terms of vocational and general academic schools. Unfortunately, relevant international statistics on the issue are usually outdated (for a country reforming its educational system three to four years may be a very long time), and reveal only part of the overall picture (for example, there is usually no data on the number of students pursuing out-of-school programmes). Hence in terms of vocational education and training the picture of how Poland stands against other countries may not be complete or entirely up to date.

Data on vocational education and training in the OECD countries show that in 1996 in over half the member countries (15-16) a majority of students at the second tier of secondary education were in schools of specified vocational profiles. In countries applying a dual system (such as Austria, Germany, the Netherlands, Switzerland), as well as in countries such as the Czech Republic, Hungary, Italy and Poland around 70 % (or more) students above the ninth grade were in vocational education programmes (4). It is not to say, however, that education proceeded at school. In a majority of countries, the core of vocational education is an in-school system. However, in countries such as the Czech Republic, Denmark, Germany, Poland and Switzerland, vocational education programmes incorporate both in-school tuition and work at enterprises. There are also countries where vocational education takes place exclusively on-the-job (the United States, Canada) or has a very limited schooling component (Ireland, Japan, the CIS).

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(2) Human development report, op. cit.
(3) Education at a glance. OECD indicators 1998; p. 38.
(4) Education at a glance. OECD indicators 1998; p. 165.
An important feature of any system of vocational education and training (which usually carries an element of certification of qualifications) is a secondary graduation diploma certifying the level of education achieved. Noteworthy, in many countries (including Poland), the share of occupations and tasks requiring higher level qualifications is growing, while the share of occupations that can do with initial vocational training only is falling. Therefore, education should be designed and planned in a way ensuring that a growing percentage of young people complete full-time higher secondary education programmes, ending with a graduation diploma.

By the end of the 1990s, around 70 % of all students attended full scope higher secondary schools (around 35 % attended general academic schools and 35 % technical vocational schools), whereas the remaining 30 % were students who never reached the secondary graduation level, and completed schools as skilled workers. The educational system reform started on 1 September, 1999, set inter alia an objective of increasing the percentage of young people in full scope secondary schools from the current 70 % up to 80 %. The reform also transformed the primary level of education (introducing a six-year primary education programme in place of the former eight-year one and installing mandatory gymnasium education of three years). In 2002, post-gymnasium schools will be launched. One of the guiding objectives of this reform is to ensure that young people receive education more in line with needs of the labour market in Poland, as well as that in a few or a dozen of years from now, students are trained to search and hold jobs in a single European market. Further, curricula of general academic schools (the so-called profiled lyceums) will include more vocational-type contents, whereas curricula of vocational schools will incorporate more subjects linked to general academic knowledge and skills.

In the three-year profiled lyceum, 80 % of tuition time is devoted to general academic education, and 20 % to profiled education. Two types of profiles are envisaged:

- academic, reflecting educational programmes of college and university (post-secondary) programmes and designed to allow students to meet the requirements of entry into such schools;
- vocational, designed to reflect individual industries within the economy.

In total, profiled lyceums will offer five profiles:

- academic – with extended scope of academic subjects;
- technology – including manufacturing techniques and technologies of tangible products (e.g. construction, chemical, electronic, media);
- agriculture and environment – including the fundamentals of sustainable management of natural resources (farming, landscape development, environmental protection, horticulture, forestry);
- social utilities and services – organisation and provision of services of business or social utility nature (business and administration, trade, social welfare and healthcare, promotion and marketing, transport, tourism and hotels);
- culture and art – organisation and management of cultural projects (regional or European culture, movies and theatre, restoration of monuments, fashion design, sports) (5).

The vocational school will be a two-year programme underpinned by the gymnasium curriculum, preparing for professional work, and in particular for acquiring qualifications under an external examination system.

Vocational education in a vocational school will based on the principle of broad profile initial vocational training at the worker’s (apprentice) level. These programmes will be strongly matched with the labour market and expectations of local employers. About 65% of total tuition time will be devoted to this component.

The purpose of general academic education, on the other hand, is to allow students to operate effectively in various functions and areas of social and public life (raising their cultural skills, building aspirations of young people to motivate them to continue general education or seek new vocational qualifications). About 35% of total tuition time will be devoted to this component.

Having graduated from a vocational school, a graduate may extend his or her education up to secondary graduation diploma level in a two-year complementary lyceum. The purpose of this type of school is to ensure adequate capacity of the schooling system and equal opportunities for young people in education.

In view of the relevant labour laws and shortening of the term of education (from three to two years), vocational school programmes need now to devote more tuition time to practical classes.

Besides the full-scope vocational education (whereby a vocational school must provide full preparation of students for vocational examinations, both theoretical and practical), the school may also provide part-time tuition in vocational theory to young (minor) workers. This offer will be addressed to gymnasium graduates who have already entered an employment contract with an employer and are now in need of initial vocational training. In this context, the role of school is to provide theoretical knowledge of the profession and to open up ways to further general education. Given that initial vocational training is a legally validated form of mandatory schooling for gymnasium graduates, not all young workers will seek a vocational school graduation diploma. They should therefore have access to further theoretical training in the format of courses co-financed by the State. Schools and other educational establishments (e.g. practical learning centres or continuous education centres) can also offer employers extension education services, whereby their employees could further develop their practical and theoretical knowledge and skills with a view to meeting examination requirements. Such extension training would be financed by employers.

However, if a young worker opts for a full-scope extension education, i.e. including theory of their profession and a module of general academic education, he or she would be awarded a school graduation diploma. The terms and conditions of such an arrangement would be negotiated by the employer with the school principal and the interested worker.

Approximation of Polish labour legislation with that of the European Union will change the current status of a young (minor) worker to that of an apprentice. Thus the category of a young worker will include young people in mandatory schooling after gymnasium (taking the form of training courses) that
concurrently have started employment under an employment contract. The category will also include, for example, minors performing work during vacation time (6).

The post-secondary school will provide vocational education underpinned by the lyceum curriculum. Its purpose will be to prepare students to acquire secondary vocational qualifications. The programme will enrol students based on their lyceum graduation diploma or secondary graduation examination diploma (in medical professions for example). The school will not offer any general academic education, except for physical fitness classes and some subjects related directly to the profession or trade taught.

A fundamental feature of a post-secondary programme is the option to shorten the tuition time (students may receive credits for individual courses if they have already acquired the knowledge or skills in the course of their work, tuition in a profiled lyceum, or in self-study). The curriculum is modular or based on courses; whichever the option, it always incorporates a strand of theoretical and a strand of practical knowledge.

At present, the future role of the post-secondary school is still difficult to define. Graduates of profiled lyceums will have three paths to choose from: starting paid work, continuing their education in a post-secondary school or continuing their education in a college or university. The future structure of those choices cannot be predicted today. The growing number of places made available by colleges and universities, as well as the growing number of students seeking higher education, will make higher education establishments, and in particular colleges and higher vocational schools, tough competition for post-secondary schools.

However, the asset offered by a post-secondary school to a student is a ‘fast track’ route to vocational qualifications. It is highly plausible that in the new schooling system the number of new type post-secondary schools will be many times higher than existing schools of post-secondary type, due to the phasing out of secondary vocational programmes.

Complementary lyceums and post-secondary schools have been designed to serve as elements of the continuous education chain, and as such should be widely accessible to both young people – as part of their continued schooling – and to adults who wish to raise their level of general education or qualifications while employed or seeking new employment.

Adult education at school is not a problem – schools are accessible and tuition is provided free of charge. However, a major challenge for the educational system is education of adults in the out-of-school format. The situation will be greatly improved by developing diverse forms of remote education, and in particular providing facilities for validating knowledge acquired in self-study or remote education, i.e. external exams. To this aim, uniform requirements and procedures of examinations will be established, as well as accessibility of schools (especially the programmes that lead to raising the level of individual education, i.e. lyceums) for adult students, with the support of educational establishments such as continuous learning centres and practical education centres (7).

(7) Educational system reform ..., op. cit.; p. 30.
4. **Scenario dimensions and descriptors**

The starting point for the second phase of the project were clusters of trends identified in the course of the first stage at European level as the international scenario dimensions.

These scenario dimensions taken from Phase 1 are:

- ‘partnerships in economic development’ summarising trends stressing the cooperation between public and private organisations, companies and sectoral organisations with VET providers;
- ‘restructuring to compete’ clusters the trends that are concerned with company structure, restructuring and networks;
- ‘changes in the workplace’. The organisation becomes multicultural, ICT, knowledge management and social skills become more important and hierarchies become less important;
- ‘mobility of labour’ summarises trends that indicate trends towards mobility of labour by flexibilisation, new combinations of work/training, but also migration.
- ‘flexibility in training programme’

The demand for general, social and communication skills seems to gain in importance, but will be learned within the company or at least in a programme that is geared to the needs of individual students.

- ‘Changing role of VET providers’

This factor summarises the changing environment and role of VET providers or training institutions. They have to adapt to regionalisation, decentralisation and a different relationship with SMEs.

- ‘The social task of training’

This factor is composed of trends that stress the social component of vocational training. Older employees, the unemployed as well as groups at risk of social exclusion should also benefit from vocational education and training and perhaps even get special attention.

- ‘Individuality’

The trends included in this factor are concerned with training and the responsibility of the outcome of education becoming more and more individualised.

Finally, after discussions between participants of the project it was decided to introduce for each context a standardised set of descriptors to make the resulting scenarios comparable. The descriptors are as follows:

<table>
<thead>
<tr>
<th>Context (a):</th>
<th>Context (b):</th>
<th>Context (c):</th>
</tr>
</thead>
<tbody>
<tr>
<td>growth,</td>
<td>flexibility/mobility,</td>
<td>general skills,</td>
</tr>
<tr>
<td>economic restructuring,</td>
<td>work/training,</td>
<td>in-company training,</td>
</tr>
<tr>
<td>competition,</td>
<td>inequalities,</td>
<td>willingness to invest,</td>
</tr>
<tr>
<td>privatisation.</td>
<td>work organisation.</td>
<td>lifelong learning</td>
</tr>
</tbody>
</table>
5. Developing strategies

The Polish research team considered the following sets of strategies the most adequate in Polish conditions.

<table>
<thead>
<tr>
<th>Context (a)</th>
<th>Economy and technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establishing incentive systems for enterprises to make them invest in vocational education and training.</td>
<td></td>
</tr>
<tr>
<td>2. Involving the social partners and, in particular, employers’ and employees’ organisations in actions related to vocational education and training development.</td>
<td></td>
</tr>
<tr>
<td>3. Anticipating labour market needs, appropriate modification of vocational training profiles, and application of alternating forms of working periods and training.</td>
<td></td>
</tr>
<tr>
<td>4. Strategy based on the concept of ‘learning organisations’ and ‘knowledge management’.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Context (b)</th>
<th>Employment and the labour market</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Integrating of actions aimed at creating workplaces, as well as vocational training and guidance to increase labour market opportunities for disadvantaged groups of people.</td>
<td></td>
</tr>
<tr>
<td>2. Strategy based on developing a new model of employee: employable, flexible and enterprising.</td>
<td></td>
</tr>
<tr>
<td>3. Establishing local/regional networks connecting vocational education and training organisers with entrepreneurs to ensure appropriate supply of workers on local/regional labour markets.</td>
<td></td>
</tr>
<tr>
<td>4. Involving enterprises in cooperation with organisers in vocational education and training on preparing in-company training programmes.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Context (c)</th>
<th>Training, skills, knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Strategy based on increased flexibility and diversification of education programmes.</td>
<td></td>
</tr>
<tr>
<td>2. Strategy based on continuing education and retraining of employees.</td>
<td></td>
</tr>
<tr>
<td>3. Strategy based on intensive use of information techniques and developing of communication skills (Internet, foreign languages, etc.).</td>
<td></td>
</tr>
<tr>
<td>4. Strategy based on developing interpersonal skills and self-instruction habits.</td>
<td></td>
</tr>
<tr>
<td>5. Strategy based on education development aimed at combating social exclusion (unemployment, pathologies, etc.).</td>
<td></td>
</tr>
<tr>
<td>6. Strategy based on increased participation of individuals in financing education.</td>
<td></td>
</tr>
<tr>
<td>7. Strategy based on developing educational areas which give the opportunity to compete on the EU labour market.</td>
<td></td>
</tr>
<tr>
<td>8. Strategy based on transparent classification of vocations and specialities and clear principles of professional promotion – comparable to EU.</td>
<td></td>
</tr>
<tr>
<td>9. Strategy based on more active participation of companies in education.</td>
<td></td>
</tr>
<tr>
<td>10. Strategy based on increasing the number of workplaces and an eased entry of baby-boomers to the labour market.</td>
<td></td>
</tr>
</tbody>
</table>
6. Scenarios

As opposed to the approach applied in the first phase, Phase 2 of the Scenario project is based on the assumption that developing meta-scenarios would go beyond the three considered contexts to integrate them. The degree of interaction between the specific contexts has been recognised as a criterion for developing pre-proposals of European scenarios. The said scenarios refer to the studies of trend groups’ sizes identified in the first phase which then became the basis for developing European scenarios in particular contexts. The first European scenario assumes a strict separation of contexts, namely lack of any important interaction between them. The third scenario assumes a balanced and flexible interaction between the specific contexts. The second one is based on a formula of intermediary measures.

In the case of Poland, the meta-scenarios have to be developed assuming a quick adjustment of Polish institutional and structural conditions to the requirements of its environment, if such scenarios are to become interesting for the country’s development. Only the above-mentioned changes may ensure continuous economic and social development allowing, in a long term, a considerable reduction of the gap between development levels of Poland and more developed States such as, in particular, the European Union countries. Only thus would Poland soon become a Member State and take advantage of it.

‘Development strategy for Poland by 2000’ prepared by the ‘Polska 2000 plus’ Forecasts’ Committee at the Presidium of the Polish Academy of Sciences (1) includes four basic priorities for Poland for the period from 2000 to 2020:

- maintaining a high rate of economic development which should be twice or thrice faster than EU countries;
- modernising and deep restructuring of the economy through active support for developing the most innovative elements in its structure;
- educational offensive aimed at modernising the youth education system, retraining many of the currently employed, and meeting future needs of an information society;
- progress in solving social problems and, in particular, reducing unemployment as a basic condition for poverty abatement.

The ‘Polska 2000 plus’ Forecasts’ Committee suggested two macroeconomic scenarios for Poland’s development by 2020: Variant I, a safer one and Variant II with more active changes.

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<table>
<thead>
<tr>
<th>Variant I</th>
<th>Variant II</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The world market situation will not be very favourable for development.</td>
<td>1. The general business climate is still favourable.</td>
</tr>
<tr>
<td>2. Foreign trade balancing may become more and more difficult.</td>
<td>2. The government starts active implementation of modernising economic</td>
</tr>
<tr>
<td>3. Modernising economic structure policy will not be implemented.</td>
<td>structure policy aimed at increasing the competitiveness of domestic</td>
</tr>
<tr>
<td>4. The EU accession date may be postponed until after 2005.</td>
<td>production.</td>
</tr>
<tr>
<td>Average annual GDP growth rate – about 4.5 %.</td>
<td>3. Poland will be accepted as an EU Member State in 2005 at the latest.</td>
</tr>
<tr>
<td></td>
<td>4. Inflow of direct foreign investment will be larger than ever.</td>
</tr>
<tr>
<td></td>
<td>Average annual GDP growth rate – about 6 %.</td>
</tr>
</tbody>
</table>

The above-mentioned macroeconomic development scenarios became a starting point for drawing up the scenarios for vocational training and education development in Poland. The two proposed scenarios refer, respectively, to the second (the circle) and third scenarios (the fractal) from among those suggested at European level.

The proposed development scenarios include some basic conditions, which will certainly or most probably occur. These are mainly demographic, economic and EU enlargement-related conditions.

**Demographic conditions**

- A considerable decrease in the number of children and youth aged less than 17 including a decrease till 2010 in the population of children and young people at primary and secondary school age by 33 % and 40 % respectively, compared to 2000.
- Increase in the number of people of productive age until 2010 by 1.4 million with respect to 2000; and by 1.154 million in 2001-05.
- Increase in the number of post-productive people by 0.6 million compared to 2000.

**Foreign debt**

In the chart below, one can see the foreign debt repayment amounts in the period from 2000 to 2010.
In the period from 2006 to 2008, foreign debt repayment amounts will be highest. After 2010, the amounts to be paid will be significantly reduced and they will drop to USD 0.7 billion per year (until 2014).

**EU accession date for Poland**

Currently, the government of the Republic of Poland assumes the country will be ready to join the EU on 1 January 2003. However, observance of the said time limit for accepting Poland as an EU Member State seems to be impossible. Years 2004 and 2005 should now be considered the earliest possible accession period.

**EU accession – issues linked to freedom of movement of persons**

In its negotiation position with the EU on 30 July 1999, Poland declared ‘it accepts the whole acquis communautaire in the area of a free movement of persons’ and that ‘it will take necessary actions, to implement acquis communautaire in the area of free movement of persons (...), so that the appropriate provisions could become effective on 1 January 2003, according to the principle of mutuality between Poland and other Member States as regards their rights and duties resulting from Community law’.

In April 2000, the European Commission submitted a draft document stating that after EU enlargement by central and eastern European countries, one should not expect any significant rise in labour migration, and its influence on the EU labour market will be limited. However, governments of some Member States do not share the Commission’s opinion. These States and, in particular, Austria and Germany consider the fears expressed by their public opinion representatives. As a result, the negotiation position currently suggested by the European Commission provides for a five-year transition period for new Member States of central and eastern Europe in the area of persons’ mobility, with the possibility of extending the period to seven years.

The attitude towards labour migration from new Member States may become more liberal in future because European Union inhabitants are getting older. Since the beginning of the 1950s, the proportion of employed to the number of retired in current EU countries has been 7:1. By now, the proportion has decreased to 4.3:1. If the trend is maintained, the proportion should be 2:1 in about 2050, according to the UNO. It is mainly due to the negative value of population growth. To maintain the fixed number of EU inhabitants, an estimated 1.6 million new immigrants should be accepted each year. However, mostly qualified workers will be needed. In European Commission President, Romano Prodi’s opinion, the European Union needs 1.7 million highly qualified specialists to face US competition. In 2000, the government of the Federal Republic of Germany announced that it would welcome 20 000 foreign IT specialists.
<table>
<thead>
<tr>
<th>Context: Economy and technology</th>
<th>I Limited development/ad hoc adjustments</th>
<th>II Growth, cooperation and competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth 3.4(1)</td>
<td>World market business climate is not very favourable to Polish economic development. Average annual GDP growth rate of about 4.5 %, higher by 2 % than EU countries, will make Poland reach 45-50 % of the average GDP level per one EU inhabitant, considering current Union members. Regional development differences are not reduced but become more striking in many cases. Due to the delay in EU accession until after 2005, Poland may not benefit from participation in EU structural policy. The pre-accession assistance makes no significant contribution to reducing of regional differences in development levels.</td>
<td>World market business climate is favourable to Polish economic development. Average annual GDP growth rate of about 6 % approaches the European Union average. EU accession gives an opportunity of a further increase in the said growth rate (1.5-2 %). In 2010, Poland makes its GDP amount to at least 60 % of the average EU level. Poland’s EU accession before 2005 makes it possible to include it soon in EU structural policy and to obtain considerable assistance (EUR 6-8 billion a year). It may exert an important influence on Poland’s balanced development. Foreign investment volume grows from the moment of Poland’s EU accession and investors start to feel more secure.</td>
</tr>
<tr>
<td>Economic restructuring 3.5</td>
<td>The economy is restructured mostly under the influence of market forces. The government takes up active restructuring of the economy only in selected, problem-posing sectors. The IT and communication services’ sector is gaining in importance but its development is dominated by large international corporations. The restructuring and modernisation of agriculture is initiated following preparations for European Union membership but it does not produce significant results. Both agriculture and the agricultural environment get modernised to a certain degree. Management in the area of agriculture gets improved and so does the know-how. Although market structures are developed and multi-function development of agricultural areas is stimulated, the agricultural structure does not change to a great extent.</td>
<td>The State actively participates in restructuring the economy. The government, in particular, adopts a firm policy to modernise the economic structure. Such actions are aimed at developing sectors generating high added values and services, especially, IT and communication thus modernising the GDP generating structure. Participation of the service sector in employment structure exceeds 50 % and the participation of SMEs reaches the level of 70-75 %. Agriculture restructuring and modernisation will be initiated but the proportion of the number of people (officially) employed in agriculture to the total number of workers decreases only from the current 27 % to slightly less than 20 % in 2010. Agriculture becomes structurally polarised into economically weak units and those able to act individually. Nevertheless, it will be possible to reach current EU standards in agriculture within the next 20 years at the earliest.</td>
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</tbody>
</table>

(1) The descriptor values refer to the intensity evaluation of a given descriptor in a specific scenario.
| Context: Economy and technology | I  
Limited development/ad hoc adjustments | II  
Growth, cooperation and competition |
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<tbody>
<tr>
<td><strong>Competition</strong> 4.3</td>
<td>Competition among enterprises becomes clearly diversified. Increasing globalisation, no possibilities of investment in modernising production, as well as high employment costs make the situation difficult for most enterprises and, in particular, SMEs. Companies’ competitiveness becomes increasingly dependent on intangible values (rather than material ones) including know-how, development potential and potential of employees. IT and communication techniques. Development conditions are more favourable for foreign capital-related companies transferring know-how from better-developed countries. The most competitive companies are the ones able to take advantage of ‘knowledge management’. Some companies make skilful use of existing possibilities to support their development within development programmes financed by the government and the European Union. However, this is mainly the case for well-off companies being able to take advantage of the assistance offered them.</td>
</tr>
<tr>
<td><strong>Privatisation</strong> 3.5</td>
<td>The privatisation process is carried out on an ad hoc basis. It aims mainly at attracting direct foreign investment to improve the payment balance. At the same time, important social circles become more and more convinced that privatisation does not bring about the expected results and that it is advantageous mostly for the elite. Participation of the private sector in GDP is gradually growing to reach 75 % in 2005 and 90 % in 2010.</td>
</tr>
<tr>
<td>Context: Employment and the labour market</td>
<td>I Limited development/ad hoc adjustments</td>
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<tr>
<td>Flexibility/mobility</td>
<td>There are still some internal economic barriers restraining the mobility of employees. Domestic mobility mainly refers to highly qualified employees. Transition periods are established for the mobility of Polish employees within the EU after Poland’s accession. In practice, the mobility of employees having lower/average qualifications is limited while the highly qualified employees, sought after in western labour markets, may find employment opportunities. There is a noticeable ‘brain drain’ in these categories.</td>
</tr>
<tr>
<td>Work/training</td>
<td>Relations between labour market needs and workforce supply are not based on long-term forecasts and plans. Large employing establishments and, in particular, foreign capital-related ones take over the methods of ‘learning organisations’. Generally speaking, however, training is not a priority and it lags behind activities aimed at product development and marketing. Workplaces are usually more careful about managers’ training than professional development of other employees. Due to the educational system reform, there are many extensively qualified young people coming onto the labour market but they usually have no practical skills. The majority of employers are not prepared to employ such people.</td>
</tr>
</tbody>
</table>
## Employment and the labour market

### Inequalities

4.3

Although employment growth is rather moderate, unemployment reaches a high stable level significantly exceeding the EU average. The number of young unemployed is particularly high. Threatened and socially excluded groups are getting more and more numerous. The level of undisclosed unemployment is still high (4-5 %). Inequalities in work and education availability between towns and villages are getting larger.

### Work organisation

3.4

In a majority of enterprises, globalisation of economy does not result in work organisation changes. Traditional management patterns and hierarchical structures are dominant. More extensive modifications are introduced in enterprises known as ‘economic leaders’ and in foreign capital-related companies. Legal conditions are created to enable enterprises to employ people for a definite time period, for the purpose of executing a specific task but such form of employment very slowly gains popularity.

## Training, skills, knowledge

### General skills

3.5

‘General skills’ are less appreciated by employers who are still searching for employees educated in a particular profession, specialisation (in the former socio-economic system). It seems that, in such a development scenario, general skills are more important for employees who foresee that the improving economic situation, and faster economic growth will allow for their better use, retraining or finding a better job (and they also may be useful in given circumstances). A similar attitude is presented by some graduates starting their first job and by certain students hoping to get a better job in the future (as well as connecting developing of general skills with their personal development – irrespective of their job).

Considering certain arrears in the educational system (curricula, equipment) and former working which did not always encourage developing such skills, needs in this area are impressive. They refer mainly to: foreign language skills, computer literacy, Internet use, a number of social, communicational and interpersonal skills.

Employers are more appreciative of general skills of workers applying for jobs. The areas of economy based mostly on knowledge (both specialised and general) are gaining in importance. Increased mobility of workers, introduction of modern technologies, and extensive globalisation at various levels (information, production, sales, etc.) result in a relative decrease in importance of professional skills and, in particular, the simplest ones. On the other hand, general skills are becoming more and more important and, in many cases, are a necessary condition for entering vocational education in high technologies.

More importance is attributed to social skills (competences) such as: teamwork, social adaptation to changing conditions (change of profession) or development (starting at school level) of the skill to enter the labour market (job-search, entrepreneurial activity, preparing CV, etc.).

VET organisers are also more concerned about developing different forms of vocational guidance.
<table>
<thead>
<tr>
<th>Context: Training, skills, knowledge</th>
<th>I</th>
<th>Limited development/ad hoc adjustments</th>
<th>II</th>
<th>Growth, cooperation and competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-company training 3.4</td>
<td></td>
<td>Vocational education needs of enterprises are limited mainly by their own economic situation but also by that of the State. Decreased demand for labour force, labour force surpluses in certain areas (high unemployment level) and lack of system-related solutions in vocational education – the majority of enterprises are not interested in establishing educational opportunities for their own needs. However, there are certain dynamically developing areas, some of which actively invest in personnel training. The fact that it is rarely possible to acquire some practical professional skills through an enterprise is an obvious obstacle to students or workers wishing to learn, retrain or upgrade their skills. In certain professions it is simply impossible to acquire skills outside the workplace.</td>
<td></td>
<td>Owing to the improved economic situation (considerable GDP growth, reduced unemployment and significant limiting of inflation), there is an increase in the skilled labour force. Enterprises are not always able to avail themselves of staff to satisfy their needs in both the number and area of professional qualifications. In many cases, enterprises start striving for workers and develop vocational education. However, growing interest of employing establishments in vocational education and training stems mainly from a system solution in the area of in-company training of employees. The State budget can afford to refund enterprises for the costs of education, training and re-training of students or workers. It is a certain financial burden for the State but also an advantage for students (employees) and employers. Students, candidate employees, are willing to learn ‘true’ technologies in ‘true’ circumstances (which is very much the same for tangible and intangible services). This is often the first time they encounter high technology at this level, not available at any school. Employees are financially motivated to strive for an appropriate education level, both in quality and terms (financial, organisational, cultural, etc.).</td>
</tr>
<tr>
<td>Willingness to Invest 2.4</td>
<td></td>
<td>Individuals are definitely less inclined to invest in vocational education and training due to weak motivation, effectiveness of training as a means of promotion and a manner of securing a job. The educational activity of individuals is usually aimed at personal development and it does not bring any benefits such as a better job, promotion or higher remuneration. Deeper involvement of national, local/regional authorities in education (organisation and financing) is required mostly by the trade unions. State institutions try to meet some part of those requirements. Enterprises and employers take little action.</td>
<td></td>
<td>Individuals are interested in bearing their education costs; there is a significant development of the educational services’ market (mostly non-public). Because of the economic situation and certain system-related solutions (see: ‘in-company training’) employers are getting more and more involved in vocational education. The role of authorities at both central and lower levels is becoming less important. Increasing demand for vocational education and in-company training may also affect the amounts of payments made by individuals in specialities and professions subject to competition between VET organisers. Unit training costs may drop. In the case where a monopoly is held by a small number of training centres (rare professions, specialities) and demand is increasing – prices of certain educational services may increase.</td>
</tr>
<tr>
<td>Context: Training, Skills, knowledge</td>
<td>I Limited development/ad hoc adjustments</td>
<td>II Growth, cooperation and competition</td>
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<tr>
<td>Lifelong learning 4.5</td>
<td>In a lower-growth-rate scenario the needs of an individual, employer, VET organiser and the State relating to lifelong learning are reduced due to a lower rate of depreciation of the knowledge acquired by students and workers. The ‘educational gap’ which stems from the discrepancies between professional preparation (mostly at school or enterprise level with respect to the ‘initial training’) and the technology of a given profession is growing at a moderate rate. Thus, there is no sudden withdrawal from the said profession. Psychological reasons for lifelong learning of individuals have not yet been fully developed and they refer only to certain people, the majority does not appreciate nor realise the importance of lifelong learning. Both the State and employers stress current educational needs. The school forms of VET are focused mostly on initial training. The essential financing sources of lifelong learning (the State, employers, foundations and individuals) consist of State entities and various foundations (including international).</td>
<td>Fast growth may result in tensions in certain fields of the economy, professions and specialities (the ‘educational gap’ may even become an ‘educational gulf’). All the four key lifelong learning actors (individuals, employers, VET organisers and the State) insist on developing a form of skills’ upgrading. Individuals are becoming more and more conscious of the role of lifelong learning, which establishes a certain tradition. It is an important result of cultural changes in refreshing one’s knowledge, changing speciality and professional retraining. With an increased growth rate, the State, employers and workers are ready to bear specific professional upgrading costs. They are usually conscious that such costs are relatively small compared to the increase in employees’ work efficiency and the costs of training a ‘new’ specialist (from the beginning). Demand for various lifelong learning forms may result in foreign companies entering domestic markets dealing with organising and implementing professional skills' refreshing and upgrading.</td>
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</table>
7. Strategies and scenarios

The analysis below is based on the results of interviews held with 14 experts. It is difficult to make any general comments as the interviews were held with a relatively small number of people. It is, however, possible to mention some regularities in the answers provided.

Most people clearly differentiated the particular strategies, by means of the following scale: O,+,++. Differences referred to the specific strategies included in the two scenarios. Few people gave an almost maximum evaluation of all the strategies (as very important). People seemed to be more willing to discuss the ‘Polish’ variant strategies.

7.1. Context: economy and technology

Establishing systems of incentives for enterprises to make them invest in vocational education and training

The strategy is aimed at encouraging enterprises to increase the volume of their investments in training or to initiate investments in that area. The scope of investment made by Polish enterprises in employee training is currently considered to be very narrow. It refers mainly to a large labour force supply, i.e. high unemployment rate. Employers and, in particular, SMEs think it is much wiser to obtain properly qualified workers from the labour market than to invest in training of their existing employees, especially as the current business climate is highly uncertain.

The strategy is appropriate for both Polish scenarios. However, the actions covered by the strategy would be more desirable under the first scenario. In the second scenario, enterprises themselves will be more convinced that investment in employees increases their market competition opportunities.

The government is expected to implement the strategy by introducing appropriate tax solutions and, in particular, tax relief.

Involving the social partners and, in particular, employers’ and employees’ organisations in developing vocational education and training

The strategy is necessary for both scenarios. At present, problems of vocational education and training are not very important in a three-party social dialogue at national level between the government, employers and trade unions. To implement such a strategy, it would be necessary to hold discussions between employers and employees at national and regional/local levels.

The strategy should be initially implemented by trade unions and employers’ organisations. Government should show initiative and include vocational education and training in the social dialogue.
Anticipating labour market needs, appropriate modification of vocational training profiles, and applying alternating forms of working periods and training

The strategy is important for both scenarios. Some interviewed experts stressed, however, that the strategy was more important for Scenario 1. Anticipating labour market needs lies within the scope of government responsibilities. At the same time it is necessary to do some scientific research in that area and to support developments of appropriate research centres.

Strategy based on the idea of ‘learning organisations’ and ‘knowledge management’

The strategy is particularly important for Scenario 2 as an element of developing the information society. In Scenario 1, the scope of application of this strategy may be limited due to lack of interest of a considerable number of employers. Employers and employees should be the key actors responsible for implementing the strategy.

7.2. Context: employment and the labour market

Integrating actions aimed at creating workplaces, as well as vocational training and guidance to increase labour market opportunities for disadvantaged groups

Opinions on whether this strategy is appropriate for the proposed scenarios were strongly diversified. On one hand, it was stressed that in fierce market competition it is not very important for economic entities. On the other hand, the strategy was said to be important for employees. All in all, however, the strategy does not seem to be important considering the period provided for the scenarios.

Strategy based on developing a new model of an employee: ready to be employed, flexible and enterprising

It is a key strategy for both scenarios. Its implementation requires involving educational authorities, employers and employees and introducing changes to educational and training objectives, contents and methods.

Establishing local/regional networks connecting the vocational education and training organisers with entrepreneurs to ensure appropriate supply of workers in local/regional labour markets

In Scenario I, implementing the strategy is more difficult because there are no proper conditions or incentives for organising a cooperation network of that kind. Poland’s EU accession may have a crucial effect on implementation as regional policy and developing such cooperation networks will be of strategic importance for economic development. The participation of Poland in EU structural policy and, in particular, in the European Social Fund (ESF) will encourage the establishment of such networks. The entities responsible for implementing the strategy should include mainly: regional organisations, with self-governed authorities, trade unions and employers’ organisations.
Involving enterprises in cooperating with organisers in vocational education and training to prepare in-company training programmes

A strategy important for both scenarios. There is, however, neither a tradition of such cooperation in market economy conditions nor motivation for starting it, which results in (in the first scenario, in particular) the strategy not developing in a significant way. Actors responsible for implementing the strategy should include mostly employers’ organisations, trade unions and regional authorities.

7.3. Context: training, skills, knowledge

The Polish variant, apart from reducing the whole paper to only two scenarios, includes an increased number of evaluated strategies. In the ‘C’ context, 10 strategies were subject to evaluation (instead of five in the European variant) at least partially corresponding to the five ‘European’ strategies.

Certain persons mentioned lack of strategies (or questions referring to them) on new professions and the most modern technologies.

It should be stressed that the particular strategies usually obtained slightly better grades in Scenario II. The only exception was two strategies, which were assessed as more important in Scenario I:

Strategy 10 – based on developing such educational areas and forms to make it easier for baby-boomers to enter the labour market,

Strategy 5 – based on developing education to combat social exclusion (unemployment, social pathologies, etc.). None of the strategies got the highest grade in Scenario I.

In Scenario II, two strategies obtained the highest grades from everybody. These were:

Strategy 3 – based on intensive use of IT techniques and developing the ability to communicate (Internet, foreign languages, ability to enter the labour market);

Strategy 4 – based on developing skills, abilities and self-study habits.

Much importance was also attributed to Strategies Nos.:

1 - based on increased flexibility and variety of educational curricula;

2 - based on developing and retraining an employee; and

7 – based on developing education providing an opportunity to compete on European Union labour markets.

The least importance was attached to Strategies 5 and 10 (i.e. the ones most appreciated in Scenario I, although in reverse order) in Scenario II:

- based on education development to counteract social exclusion,

- based on developing fields, to make it easier for baby-boomers to enter the labour market.
The ‘European’ variant (five strategies, three scenarios) consisted of less diversified answers. In none of the scenarios, did the strategies obtain maximum values, although the following were regarded as very important:

- In Scenario I, it was the third strategy based on specific, basic skills.
- In Scenario II, it was the second strategy based on individual development as a means for preventing social exclusion.
- In Scenario III, it was the fifth strategy based on investing in individuals’ own training.
- The Strategy 1, based on a clear professional qualifications’ structure and mobility, was also considered to be important (in all scenarios).

7.4. Clustering strategies

Initially, the strategies were grouped according to the three discussed contexts. The research team analysed several options for alternative clustering looking for the most coherent and homogeneous categories. Finally, we decided to apply two-fold types of categories. The first one deals with target groups of actions described by individual strategies: individuals and companies. The second type refers to character of actions: networking/developing partnerships and proactive policies attributed to strategies.

**Individuals**

Strategy based on developing a new model of an employee: employable, flexible and enterprising.

Strategy based on increased flexibility and diversification of education programmes.

Strategy based on continuing education and retraining of employees.

Strategy based on intensive use of information techniques and on developing communication skills (Internet, foreign languages, etc.).

Strategy based on increased participation of individuals in financing education.

Strategy based on education development aimed at combating social exclusion (unemployment, pathologies, etc.).

Strategy based on developing interpersonal skills and self-instruction habits.

This cluster consists of strategies aimed at individuals in their different roles as students, employees and unemployed.

**Companies**

Establishing systems of incentives for enterprises to make them invest in vocational education and training.
Strategy based on more active participation of companies in the process of education.

Strategy based on the concept of ‘learning organisations’ and ‘knowledge management’.

The cluster comprises strategies aimed at enterprises, developing and strengthening their role in education and training processes.

Networking/developing partnerships

Establishing local/regional networks connecting vocational education and training organisers with entrepreneurs to ensure appropriate supply of workers on local/regional labour markets.

Involving enterprises in the Cupertino with organisers in vocational education and training on preparing in-company training programmes.

Involving social partners and, in particular, employers’ and employees’ organisations in the actions related to vocational education and training development.

This cluster deals with actions aimed at developing networks and partnerships among VET actors, especially employers and employees and VET organisers.

Proactive policies

Strategy based on increasing the number of workplaces and easing entry of baby-boomers onto the labour market.

Strategy based on developing educational areas, which give the opportunity to compete on the EC labour market.

Anticipating labour market needs, appropriate modification of vocational training profiles, and applying alternating forms of working periods and training.

Strategy based on a transparent classification of vocations and specialities and clear principles of professional promotion – comparable to EC.

Integrating actions aimed at creating workplaces, as well as vocational training and guidance to increase labour market opportunities for disadvantaged groups of people.

The cluster includes strategies related to proactive policies aimed at solving social problems and meeting future needs resulting from EU integration processes and globalisation of the economy. The main actors in this cluster are national and local governments.
7.5. Robustness of strategies

Analysis of the collected data on strategies resulted in the following assessment of strategies’ relevance and their robustness:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Scenario I Relevance (1-3)</th>
<th>Scenario II Relevance (1-3)</th>
<th>Robustness (1-3)</th>
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<tbody>
<tr>
<td>A1</td>
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<td>C10</td>
<td>3</td>
<td>1</td>
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*Relevance*  
1 = little relevance  
2 = relevant  
3 = highly relevant

*Robustness*  
1 = Least robust  
2 = Quite robust  
3 = Very robust
8. National seminar

The national seminar was organised on 19 April 2001 in Warsaw. About 20 national experts took part. Participants included representatives of the main vocational education and training ‘stakeholders’ in Poland and representatives of Max Goote Institute. They discussed the results of the first stage Scenario project research carried out in Europe and Poland, presented the first European results of the second stage research and proposals scenarios and strategies submitted by the Polish research team in the second stage of research. The discussions held during the seminar focused mainly on Polish scenarios and strategies.

These are the results:

- the scenario development methodology adopted by the Polish team was not called into question, and it was stressed that it had been right to consider the report of the Forecasts’ Committee ‘Polska 200 Plus’;
- developing the Polish vocational education and training system requires more extensive involvement of employers in implementing adequate strategies. However, there are still the following obstacles:
  - labour market situation – high unemployment level resulting in a large supply of a highly qualified workforce, which makes employers become less interested in investments in training;
  - legal regulations discouraging employers from getting involved in the education and training sphere;
  - lack of understanding among employers for the educational system and, in particular, a vocational education reform.
- Poland’s accession to the European Union will have significant importance for developing the Polish vocational education and training system. It will allow for full inclusion of Poland in European cooperation networks and for use of financial resources of the European Social Fund. Problems relating to future EU membership and, in particular, to transition periods for Polish workforce mobility suggested by the EU countries (Austria, Germany) were indicated. An opinion was that, in practice, limitations resulting from the transition periods will not apply to highly qualified workers which may lead to a ‘brain drain’ reducing the country’s development potential. It will mainly be development following the first scenario.
- It is important to promote the project research results, in particular, among decision-makers.
9. Conclusions

1. Both stages of the project received a lot of attention in Poland. First, because Poland is still a typical ‘country in transition’ from one system to another. The transition process obviously uncovers many so far unknown problems, making planning for the future even more difficult. But evidently, the rapid pace of social and economic change makes future-oriented approaches a must of today. Second, the project applied an interesting methodology. It makes references to other methods, yet it also paves the way to seeing processes of vocational education and training in Poland in an entirely new light. At the same time, the methodology provides good insight into how the same issues are perceived by experts from various countries. It is especially important in the situation where the Polish education system is going through extensive reform.

2. The study took place with some particular conditions characteristic of Poland, and we believe, also for other central and eastern European countries. The scenarios developed had to take account of quick adjustment of Polish institutional and structural conditions to meet the requirements of the European environment. With such changes continuous economic and social development will allow, in the long term, for a considerable reduction in the gap between development levels of Poland and more developed States such as European Union countries. Thus could Poland soon take advantage of becoming a Member State. Therefore the scenarios developed in our study were based on macro-economic scenarios concentrating on this crucial issue. We tried to avoid constructing scenarios in an ‘extreme’ way and therefore we did not consider any decisively ‘negative’ scenario.

3. We consider the method applied in the study to have enormous potential, however, we believe that in VET, it still needs some adjustments to produce more concrete results. In our opinion, the experience of the project shows that its initial assumptions were too ambitious; especially the scope of the first stage should have been focused more on issues dealing directly with VET development. The results of this stage, especially scenarios, were too general to be an effective tool for decision-making processes. However, we think that as a whole the project was, without doubt, a valuable experience and learning process for its direct and indirect participants. Complete success depends on wide dissemination of its results and the creation of an appropriate forum to discuss its outcomes and recommendations. We fear that without any follow-up the impact of the project may be limited.
10. References


