

REPORT

*Reform of the Greek VET System: Fostering Growth and
Employment*

EXECUTIVE SUMMARY

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This document corresponds to a shortened version of the *Executive Summary* accompanying the full *Report*, which were prepared by *Dr Nikitas Kastis, European Expert*, in order to provide consulting support for evidence-based policy making to the Greek Authorities, to deliver according to the provisions as it regards the Labour Market and Growth related reforms, and especially with the Vocational Education and Training system. Since these provisions constitute part of the MoU for the ESM Programme for Greece (to deliver Financial Support and Structural Reforms). What is included in this Summary and the Report, in terms of diagnosis and recommendations and policy orientation and documentation, solely reflect the Expert' s understanding and views.

EXECUTIVE SUMMARY

Vocational education and training (VET) is an important and credible “tool” to strengthen the fundamental factors supporting economic growth and development prospects in Greece, and to help address the chronic deficiencies resulting from persistently high long-term unemployment. There are strong arguments for expanding and upgrading the VET system to foster human capital and business competitiveness, while providing strong social returns to investment for society, businesses and workers, that go beyond those achievable by individual efforts alone. Investment in skills by individuals and firms is inherently risky and the returns are often underestimated, even though the average returns to society are high. Moreover, investment in skills is essential to mobilise the pool of long-term unemployed and never-employed people, in order to facilitate sustainable economic growth and recovery in the face of an aging workforce.

In this document, we first identify the *employment* and the *employability gaps* that the Greek economy and society face in view of developing an economic growth and recovery programme. Secondly, we provide detailed recommendations for the upgrade and expansion of the Vocational Education and Training and with the adoption of apprenticeship schemes, at wide range of skill levels. Our proposals enhance the current reform plans of the Greek authorities, those set out in the national *Strategic Framework for VET* and the corresponding *Implementation Plan*, as it regards the relevant quality and qualifications frameworks to be adopted, together with their deployment in line with consistent ALMP planning.

Finally, we provide an analytic framework to assess the costs and impact that the implementation of the VET reforms could have on both the employment and macro-economic growth. By these means the nature and magnitude of the alternative reform plans can be assessed in the wider context of the development of human capital and labour resources in the Greek economy, taking account of the speed limit of reducing long-term unemployment and the ageing of the population. In particular, we examine the implications of a "no-policy change baseline", in the absence of any upgrade and expansion in the VET system, the impact of the authorities' current “VET-expansion proposals”, and the further much wider "VET expansion scenario" that is proposed in this paper, coupled with regulatory and qualification frameworks' innovation. Such an approach can also be used more widely for the assessment of impact in VET planning exercises.

1. The current VET and apprenticeship system in Greece

Vocational Education and Training in the wider European context includes all activities and programs aiming at learning and developing vocational or professional competences. In conventional usage, “initial VET” (IVET) aims at improving the quality of human resources, by acquiring (vocational & professional) knowledge and by developing skills and competencies, in order to serve their “first entrance” into the labour market. In contrast, "continuous VET" (CVET) addresses the skills needs emerging during working life, either as an employee or self-employed, involving the upgrading of skills and technical or

professional knowledge. In the case of the long-term unemployed or never-employed, aspects of both IVET and CVET are needed to provide adequate re-skilling and re-training, in order to change their professional prospects and become employable.

The VET system in Greece currently consists of three, rather loosely connected systems. Only one part belongs to the formal education system, the “EPAL” Upper Secondary Vocational Education Schools that is part of the secondary education system, currently without any apprenticeship experience. Secondly, the “EPAS” Vocational Training Schools run two-year apprenticeship courses for school leavers (after graduating first year of Upper Secondary), under the responsibility of OAED and other Ministries (for Agriculture, Tourism and Shipping). Finally, the “IEK” Vocational Training Institutes offer post-secondary level vocational training, currently providing some limited unpaid apprenticeships. The IEKs are both public and private.

The initial (general education) school-leaver VET system is small compared to that in other Member states, with less than 30% of Lower Secondary Education graduates following the vocational education and training path (see table). And presently, less than 10% of the school leavers follow a dual apprenticeship system through the EPAS Vocational Training. Moreover, the EPAS Schools provide only “Level 4” qualifications with no clear route to neither the Secondary Education certificate (ISCED 3) nor to the higher level-5 qualification that is usually the case for school-leavers in the rest of European countries.

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
<i>Lower Sec Education Graduates</i>	102.008	101.923	98.868	93.956	95.437
<i>Upper (General) Sec Educ Y1 Admissions</i>	87.324	87.438	86.619	83.959	82.009
<i>Upper (Vocational) Sec Educ Y1 Admissions</i>	25.678	24.917	24.172	21.974	24.352
<i>Upper (Vocational) Sec Educ Y2 Admissions</i>	31.583	34.013	34.582	33.926	32.136
<i>EPAS School Y1 Admissions</i>	17.035	19.155	19.243	9.521	5.317
<i>Upper (General) Sec Educ Graduatess</i>	76.865	78.341	77.364	76.289	
<i>Upper (Vocational) Sec Educ Graduates</i>	26.711	24.992	25.759	28.052	28.865
<i>EPAS School leavers</i>	10.355	10.967	11.929	10.432	

Table: Lower Secondary Education & Upper Secondary Vocational Education (“EPAL”) & (non-formal) Vocational Training (“EPAS”) outcomes (graduates & leavers), period 2010/11-2014/15

In addition, the (post-school) IEK system is very small in terms of numbers, compared to elsewhere in Europe. The public IEKs – with no fees – usually admit some 30,000 students per year for a two-year course¹, leading to Level 5 qualifications, only after the accreditation exams (this is the provision as of the Law 4186/2013, not yet applied). The system caters for both school-leavers and some sort of skills-upgrade. However, the resources are limited and the quality and effectiveness of the training offer is not equivalent to that offered by other VET institutions, of similar level, in Europe. There is also, in theory, an informal 6-month unpaid work experience/practice, linked to some of the program specialties, but its availability is very much dependent on the individual IEK. In addition, there is a network of KEK training centres (recently re-named as “Lifelong

¹ A more or less equal number of students are admitted to the private IEKs (numbered less than 130).

Learning Centres”) that offer various professional training courses for businesses and the unemployed (with the cost almost fully covered by the Structural Funds).

Currently, there is limited assessment of the training outcomes in the VET system. The main evaluation relates solely to the duration of these programs, without any sort of assessment of the acquisition of specific technical knowledge and the development of any vocational/professional skills. This is mainly due to the highly regulated system of training provision, which is almost exclusively supply driven, based on available funding from the ESF. This severely limits any sort of selection by the beneficiaries, including by individual beneficiaries and employers, and also limits incentives for innovation and quality upgrade.

2. The "employment" & "employability" gaps hold back economic recovery

With Greece having lost some 25% of GDP and still under heavy recession, structural reforms, including those to significantly increase the availability of competent human capital, will prove to be critical to allow for a sustained economic recovery. The high figures of youth and long-term unemployment have already contributed to the worsening of the economy and the labour market, further deepening the crisis². Greece now faces an "employment gap" caused by devastating long-term unemployment, coupled by early retirements and the progressive ageing of the population that will reduce the working age population by some 0.5% per year, from 2018 onwards (according to the projections of the EC Ageing Report). At the same time, the country faces an "employability gap" (availability of "right skills for work") as reflected by the difficulties in mobilizing both the youth and the long-term unemployed to get back into work.

In particular, long-term unemployment has reached 74% representing some 870,000 people (see table). Youth unemployment rates are still above 50% with some 21% of the unemployed never having experienced a job. Examining the age and education distribution of the unemployed suggests that a wide range of different responses are needed to mobilise the unemployed into jobs. The majority of the unemployed have only medium-to-low skills and this is particularly the case amongst the youths under 24 years. However, 37% of the unemployed have a tertiary education and this rises to 56% amongst those aged 25-29 years. Actions therefore need to be taken both to address those with medium-to low skills and those with a tertiary education background.

² See at "Growth Forecast Errors and Fiscal Multipliers", OI. Blanchard & D. Leigh, IMF Working Paper, January 2013.

Table: Unemployment, 4th quarter 2015

	Total	Long-term unemployed	% Long-term unemployed	% Tertiary qualification
Total	1,174.7	872.2	74%	37%
15 – 19 years	15.8	5.8	37%	4%
20 – 24 years	115.6	69.3	60%	36%
25 – 29 years	195.5	134.4	69%	56%
30 – 44 years	488.9	366.4	75%	41%
45 – 64 years	351.5	290.0	83%	23%
Over 65 years	7.3	6.3	85%	9%

Source: ELSTAT LFS

Long-term unemployment is a major constraint on economic growth. It will be difficult to integrate such large numbers of long-term unemployed quickly back into jobs without substantial policy intervention. International experience, particularly from the UK and Australia, but also from France and the Central European countries, shows that schemes of training and apprenticeships can be effective in increasing employability and reducing long-term unemployment. Experience from Germany, Austria and the Netherlands show that vocational education and apprenticeship schemes can sustainably reduce unemployment at all levels of education. In particular, it is crucial that Greece tackles the long-term unemployment problem both for the Secondary Education graduates and for the unemployed university graduates. Over a third of the unemployed have a tertiary qualification and proportion rises to well of half amongst those in the 25-29 year age group (see table). Secondary Education school leavers however outnumber graduates in the 15-24 age groups and amongst older workers.

3. Assessing the effects of the employment and employability gaps for economic recovery

The current VET system, with the limited adoption of apprenticeships (traineeships) is inadequate to meet the labour market challenges posed by the anticipated economic recovery. Greece has lost a cumulative 25% of output since 2009 and urgently needs a growth recovery. However, recovery is being held back by the fact that some 75% of the unemployed have been out of the labour market for more than one year. Moreover, labour force projections from the EU Commission's Ageing Report estimate a contraction in the labour force by 0.5% per year from 2018 onwards. Without substantial efforts towards employment mobilisation through VET and apprenticeships, in compliance with active labour market policies, Greece will find it difficult to grow faster than 2% a year.

Modeling the implications of alternative VET-expansion scenarios

The stylized macroeconomic model used for the different scenarios in this paper, estimates warranted or sustainable GDP growth based on long-run labour supply considerations. GDP growth in the short run can be higher than this sustainable rate, in case when average hours worked increase or if labour productivity growth rises faster than projected, owing to capital accumulation or innovation (where the impact of quality upgrade could make the difference).

Long-run sustainable growth is determined by productivity growth and the rate of growth of labour supply. The growth of labour supply is determined by the rate of growth of the working-age population (taken from the European Commission's 2015 Ageing Report) adjusted by the proportion of the unemployed population that can be mobilized for employment. It is assumed that the "speed-limit" for the reduction in unemployment is approximately one percentage point per year, based on the very small recent reductions achieved in the unemployment rate. The baseline economic growth scenario is similar to the IMF economic growth projections in their DSA report of May 2016.

Based on experience elsewhere in Europe (especially the initial experience with the modern apprenticeship scheme in the UK), an expansion of apprenticeship schemes can significantly serve to mobilize the long-term unemployed. We have assumed that the proportion of apprentices entering full-time employment rises some 5% points per year, from the current success rate of some 30% in 2016 (somewhat conservative compared to the UK experience). This increase in labour mobilization, through the apprenticeship schemes, increases the "speed-limit" for the reduction in unemployment. Increased mobilization of labour supply increases the sustainable GDP growth rate.

In order to provide an assessment of the level of impact of both the size of the initiative and the quality of the planning of the VET Reform on the economic recovery, we have undertaken a stylised macroeconomic sustainability analysis up to 2021, based on no change in the current VET and apprenticeship policy showing an average sustainable GDP growth rate of 2.1%, over the period 2016-21 (see table below). Working age population and labour force projections are based on the EC Ageing report projections of working-age population. The speed-limit for the reduction in long-term unemployment is taken into account by limiting the fall in structural unemployment to one percentage point per year (approximately a reduction of some 50,000 per year³). Owing to the contraction in the working-age population, warranted employment growth will slow down from a 1.4% growth in 2016 and 2017 to some 0.6% by 2021. Given even relatively strong productivity growth of 1.2% per annum, sustainable GDP growth would fall below 2% by 2021.

³ For comparison, unemployment fell by 71,000 in 2015, of which some 37,000 were long-term unemployed. As unemployment falls, it will become increasingly difficult to reduce unemployment except through reductions in long-term unemployment. A second comparison is the IMF debt sustainability projection of May 2016 that assumes that the Greek unemployment rate remains above 22% in 2022.

Baseline scenario

Labour market projections (000)	2016	2017	2018	2019	2020	2021
Working age population	6,975	6,982	6,951	6,916	6,875	6,831
Labour force	4,748	4,753	4,732	4,708	4,680	4,650
Employed	3,627	3,678	3,709	3,737	3,762	3,785
Unemployed	1,121	1,075	1,023	970	918	865
Labour market assumptions:	2016	2017	2018	2019	2020	2021
Working age population	0.10%	0.10%	-0.44%	-0.51%	-0.60%	-0.63%
Structural unemployment %	23.6%	22.6%	21.6%	20.6%	19.6%	18.6%
Sustainable GDP growth	2016	2017	2018	2019	2020	2021
Employment growth	1.4%	1.4%	0.8%	0.8%	0.7%	0.6%
Productivity growth	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Sustainable GDP growth	2.6%	2.6%	2.0%	2.0%	1.9%	1.8%

Source: ELSTAT, European Commission's 2015 Ageing Report and own projections.

In order to proceed with a valid estimate of the relevant size of the VET system – in terms of the IVET students' population and participation to apprenticeships -, which will critically contribute to the necessary employment growth and eventually to the economic recovery, the present paper adopts the following hypothesis:

- Given the relationship among growth and employment and the VET supply, with the latter encompassing good quality apprenticeship schemes facilitating significant increase of the VET (and apprenticeship) demand,
- for the Greek economy to sustain an average 2.1% GDP annual growth in the next five years (2016-2021),
- while considering an annual productivity growth of 1.2%, then annual employment growth needs to reach at least 1%,
- corresponding to an annual employment increase of some 37-40,000 new jobs.

Further on, and given that the majority of these new jobs is expected to be the outcome of ALMPs with work-based training programs – apprenticeships and traineeships -, we are estimating (on the basis of anticipated participation and placement rates) the potential size of the VET demand (participants to IVET) to be reached through the VET Reform, after the implementation of a coherent plan of actions for the next 5-year period:

- We also adopt the hypothesis that the approximate increase in employment is provided through the VET system, by a wide adoption of ALMPs with embedded work-based learning programs (IVET apprenticeships and CVET traineeships), with a success rate reaching some 55% at the end of the planning period (quota of apprenticeships turned to permanent jobs), which corresponds to more than 70,000 of both apprentices (“new entrants”) and trainees (unemployed), and with almost equal quotas of the two categories - i.e. some 36,000 qualified apprenticeship completions.

- This is the proxy of qualified (“accredited” according to the provisions of Law 4186/2013) apprentices, that should be targeted by the VET implementation/expansion plan (VET Reform), given a demanding targeted increase of the IVET students’ population, together with a targeted increase of these students’ participation to the Apprenticeship programs.

4. The Greek authorities’ proposals for expansion of VET and Apprenticeships

The authorities have elaborated a draft plan for the expansion of the VET system and the apprenticeships in the “*VET Implementation Plan*”, which has not been officially presented yet. The plan corresponds to the “*Baseline Scenario*” as in this paper and envisages an expansion of VET and apprenticeships with the number of annual finalised accredited apprentices expected to increase from some 6,800 in 2015-16 to some 35,000 by 2020-21. There will be common provisions for quality and qualifications frameworks. Employers will become engaged through collaboration schemes and “intermediary structures” with apprenticeship labour costs based on existing regulations for the EPAS schools (OAED).

According to the *Implementation Plan*, the EPAL school students will expand at 5% per year and it is envisaged that a fourth year of apprenticeship will be introduced from 2016-17 and will eventually cover 50% of EPAL graduates (by the end of the planning period in year 2021). The EPAS schools will also expand but slowly, at 1% per year. The IEKs will face a major expansion by 10% a year, with it being envisaged to reach 50% of final year students to be offered with an apprenticeship, by the end of the planning period.

Parameters of the Authorities’ VET-expansion (“*Baseline*”) Scenario

- Provisions for a “Qualifications Framework” and the corresponding learning requirements for the various types of VET including work-based learning, according to Law N.4186/2013;
- Provisions for teacher-to-apprentices ratios follow the Law N.4186/2013 as well;
- Common rules for a quality framework for apprenticeships. Apprenticeship employment costs based on the current EPAS schemes of OAED equals a daily rate of some € 20.55, with 45% employers’ contribution
- Employers, from both the public and the private sector, will become engaged through collaboration schemes and “intermediary structures”, in order to bring corresponding numbers of interested enterprises, and further on join permanent regional public-private partnerships.
- The authorities propose a steady increase of the EPAL students and graduates from academic year 2016-17 of some 5% annually. Apprenticeship participation rates for EPAL graduates starting from 15% in 2017-18 and reaching 30% by year 2020-21. Successful completion of apprenticeship schemes at 60% in the first two years, reaching 75% from 2018-19 onwards.
- The authorities propose an annual increase of the EPAS students of some 1%, together with apprenticeship participation rates of 90%. Successful completion of apprenticeships at 50% in the first two years, reaching 60% from 2018-19 onwards.

- The authorities propose an annual increase in IEK students of 10%, with the percentage joining apprenticeship schemes increasing from 20% to reach 50% by 2020-21. Successful completion of apprenticeship schemes at 60% in the first two years, reaching 80% from 2018-19 onwards.

The proposed expansion of VET and apprenticeships policy, if successfully implemented without major delays, is likely to have a significant macroeconomic impact. Such an expansion of apprenticeships will approximately offset the effects of population ageing on labour supply, with sustainable GDP growth almost 0.5% higher than in the scenario when no action is being undertaken. Making prudent assumptions about the employability rate of accredited apprentices (that it rises from 30% to 55% over the reference period⁴), the new additional employment from qualified “accredited” apprentices of some 33,000 in 2021 should be sufficient to offset the decline in the labour force from retirements. Nevertheless, such a size of anticipated increase in VET apprenticeships would not be sufficient to tackle the need to mobilise the long-term unemployed. On this basis, further action and increased effort would be warranted.

Impact of the VET “Implementation Plan”

Labour market projections (000)	2016	2017	2018	2019	2020	2021
Working age population	6,975	6,982	6,951	6,916	6,875	6,831
Labour force	4,748	4,753	4,732	4,708	4,680	4,650
Employed	3629	3685	3722	3762	3804	3847
Unemployed	1119	1068	1010	945	876	803
Labour market assumptions:	2016	2017	2018	2019	2020	2021
Working age population	0.10%	0.10%	-0.44%	-	-	-
Structural Unemployment	23.6%	22.5%	21.3%	20.1%	18.7%	17.3%
(VET Reform) Apprenticeship impact	2.0	4.6	5.9	12.3	16.7	20.3
Cumulative impact	2.0	6.7	12.6	25.0	41.7	62.0
Accredited apprenticeships	6.8	13.3	14.8	27.4	33.5	36.9
Apprentice employment rate	30%	35%	40%	45%	50%	55%
GDP and productivity	2016	2017	2018	2019	2020	2021
Employment	1.5%	1.5%	1.0%	1.1%	1.1%	1.1%
Productivity growth	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
GDP growth	2.7%	2.7%	2.2%	2.3%	2.3%	2.3%

⁴ Note that as well as facing possible unemployment, a significant number of Apprentices are admitted to Tertiary Education.

5. A further expansion of VET and Apprenticeships is required to tackle the employability gap

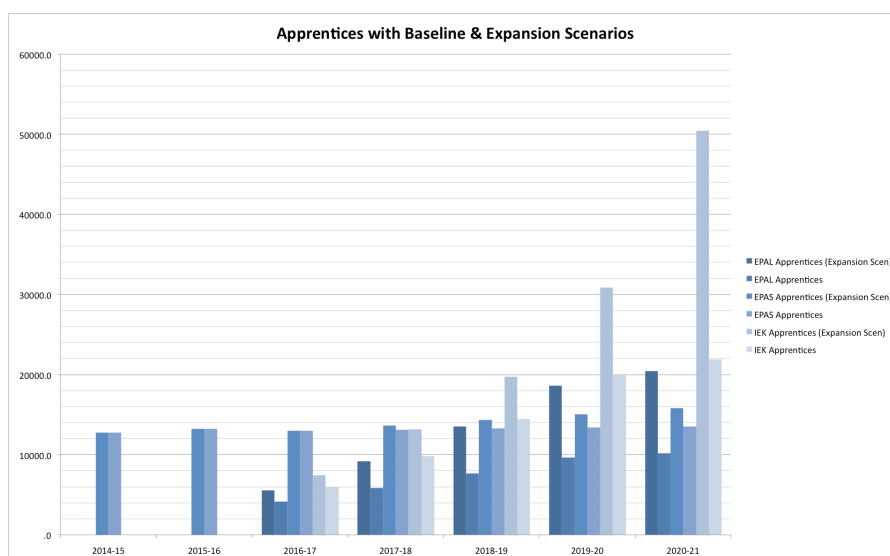
The current proposals of the authorities to expand VET and apprenticeships may address the structural labour market needs arising from the decline in the working-age population. However, they are not sufficient to address the need to reduce long-term unemployment and enable economic recovery. A more ambitious scheme is needed to address these goals. To this end, this paper proposes a more ambitious expansion of the existing EPAS and EPAL systems that would allow well academically qualified long-term unemployed to enter the apprenticeship programs, together with a significant expansion of the Post-Secondary VT. The envisaged expansion in the EPAS system would be by 5% per year, while the admissions to the EPALs would expand by 10% a year, from 2017-18 onwards. This expansion would provide an average of another 10,000 accredited apprenticeships per year – see figures in *Table I*, in *Appendix 1*.

By considering the documented relationship with employment and economic recovery in Greece, it seems that the size of the anticipated increase in IVET apprenticeships, as with the still provisional *Implementation Plan* cannot tackle the need to mobilise the long-term unemployed. On this basis, we have further investigated a more optimistic “*Expansion Scenario*”, as in *Table II* (see in *Appendix 1*), regarding the participation rates to both the IVET programs and to the apprenticeship schemes, a more ambitious expansion of the existing EPAS and EPAL systems that would allow well academically qualified long-term unemployed to enter the apprenticeship programs.

As a strong complement to the above-mentioned proposal, it is recommended to significantly upgrade and expand the Post-Secondary (non-tertiary) Vocational Training system (of IEKs), considering also the building and offering of one-year vocational (professional) development courses, coupled with a "modern apprenticeship" system – as on the basis of the UK and Australian models - that would increasingly replace the short-term labour market youth support schemes. Such a line of action could be expanded up to a maximum size of some 40,000 IEK apprentices by 2020-21. And using reasonable assumptions about success rates, based also on the UK experience and European developments, the number of completions by 2020-21 could be expected to be around 65,000 accredited apprentices. This would provide a major boost to efforts to reduce long-term unemployment, particularly amongst those with only a secondary school education qualification, but also for the better academically qualified, long-term unemployed. This expansion would provide around an additional to the “*Baseline Scenario*” average number of 13,000 accredited apprenticeships per year.

Parameters of the VET Reform “Expansion Scenario”

- Common provisions for a "Qualifications Framework" and the corresponding learning requirements for all types of VET embedding work-based learning, as detailed in box “VET Qualifications Framework” further down;
- Provisions for teacher-to-apprentices ratios follow the Law N.4186/2013;
- Common rules for a quality framework for apprenticeships. Apprenticeship employment costs based on the current EPAS schemes of OAED equals a daily rate of some € 20.55, with 45% employers’ contribution;
- Employers, from both the public and the private sector, will become engaged through collaboration schemes and “intermediary structures”, in order to bring corresponding numbers of interested enterprises, and further on join permanent regional public-private partnerships;
- The introduction of a new **modern apprenticeship system** with customizable duration (12 or 24 months, depending on assessment of prior knowledge-experience) aimed specifically at the long-term unemployed and never-employed to be serviced through the upgraded IEKs and KEKs, that will provide an additional 7-10,000 places in 2017-18 rising to 20,000 by 2020-21.
- A steady increase of the EPAL students and graduates from academic year 2016-17 of some 10% annually (versus 5% currently planned). Apprenticeship participation rates for EPAL graduates starting from 20% (instead of 15%) in 2017-18 and reaching 50% (rather than 30%) by year 2020-21. Successful completion of apprenticeship schemes at 60% in the first two years, reaching 75% from 2018-19 onwards.
- An annual increase of the EPAS students (apprentices) of some 5% (rather than 1%), together with apprenticeship participation rates of 90%. Successful completion of apprenticeship schemes at 50% in the first two years, reaching 60% from 2018-19 onwards.
- An annual increase in IEK students of 10%, with the percentage joining apprenticeship schemes increasing from 20% to reach 50% by 2020-21. Successful completion of apprenticeship schemes at 60% in the first two years, reaching 80% from 2018-19 onwards.



Source: MoE data (2015)

As we can see, in the Appendix to this Executive Summary, the difference in terms of the impact brought about, compared to the “*Baseline Scenario*”, is in the order of 32,000 accredited apprentices, which approximates a number of around 17,500 jobs – more than 0.5% increase of employment.

It needs to be further mentioned that according to this planning and for the cases of the “*Baseline Scenario*” (in line with the provisional *Implementation Plan*) from the one side and the “*Expansion Scenario*” from the other:

- some 36% of the *Plan's budget* is going to be covered by the “*Investment Priority*” 10.4 (of the *OP “HRD-LLL”*), with some 34% in the case of the “*Expansion Scenario*”,
- some 23% from other *Priorities* of the same *OP*, related to active labour market policies, and some 24.6% in the case of the “*Expansion Scenario*”, while
- the contribution of the employers proves to be the largest one to the above budget, by some 39% for the “*Baseline*” and some 39.3% for the “*Expansion Scenario*”, with the ultimate scope to make the *Plan (VET reform)* a reality and hopefully a success.

Then, we wish to strongly recommend that the decision to invest in a further expanded VET system has to be justified on the basis of the planning requirements and potential coordination with other policy making areas (see further down and in Part II.2. in the paper). It needs further justification accompanied by the detailed planning and budgeting, including the “opportunity cost” of the additional funding necessary – in the region of € 250m -, to be earmarked from the 2014-20 “HRD-LLL” *OP*. Such a justification should be further considering the gradual deployment of a tax-credits system.

A more detailed analysis is recommended, including the impact on the public finances, in order to justify an elaborated funding scheme of the VET & Apprenticeships’ Programme. This analysis should consider the gradual substitution of the ESIF funding by “smart & motivating” tax credit schemes, for the employers. Starting from the year 2019-20.

Overall, macro-economically, such a concerted expansion could provide an additional of more than 60,000 jobs to the labour market by 2021 (more than 1.2% of the labour force), according to the following table – “Impact of ‘Expanded Scenario’”. Then, a sustainable economic growth rate of around 2.5% per annum could be continued over the period up to 2021, and the unemployment rate could be reduced in 2021 by some 2%, compared to the *Implementation Plan* projection.

Impact of Expanded VET and Apprenticeships Scenario

Labour market projections (000)	2016	2017	2018	2019	2020	2021
Working age population	6,975	6,982	6,951	6,916	6,875	6,831
Labour force	4,748	4,753	4,732	4,708	4,680	4,650
Employed	3,629	3,686	3,725	3,770	3,821	3,881
Unemployed	1,119	1,067	1,007	937	859	769
Labour market assumptions:	2016	2017	2018	2019	2020	2021
Working age population	0.10%	0.10%	-0.44%	-0.51%	-0.60%	-0.63%
Structural Unemployment	23.6%	22.5%	21.3%	19.9%	18.4%	16.5%
(VET Reform) Apprenticeship impact	2.0	5.4	7.9	17.4	26.1	37.3
Cumulative impact	2.0	7.5	15.4	32.8	58.9	96.2
Accredited apprenticeships	6.8	15.5	19.8	38.7	52.2	67.8
Apprentice employment rate	30%	35%	40%	45%	50%	55%
GDP and productivity	2016	2017	2018	2019	2020	2021
Employment	1.5%	1.6%	1.1%	1.2%	1.3%	1.6%
Productivity growth	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
GDP growth	2.7%	2.8%	2.3%	2.4%	2.5%	2.8%

6. Improving the functioning of the VET and Apprenticeship system

In order to be successful, the proposed "VET expansion" must be coupled with specific reforms to improve the way that the current VET system interacts with the labour market. Close co-ordination is needed between policy makers in the education, labour and business development areas to plan a major expansion of the VET system. Employers and municipalities should be involved in the development of local initiatives. Expansion should be based on using all existing education and training institutions, including the IEKs, KEKs and other relevant institutions. The current deficiencies of VET policies in terms of quality, bureaucracy and low responsiveness to employer needs have to be addressed by a targeted effort to make the system more congruent with the requirements of the new jobs that are being created.

The systematic and large-scale adoption and expansion of the dual work-based learning and apprenticeship schemes is needed to support the adjustment of the economy and the labour market, to get in line with the evolutions in Europe in terms of innovation, competitiveness and "flexicurity". This will facilitate the significant up-skilling and the development of the professional competences of the employees and the human capital at large, as well as contributing to the significant improvement of the employability of those unemployed, to find better jobs with increased added value.

To this end, we consider that the following policy recommendations are essential in order to implement and consolidate the VET Reform:

Recommendations for Policy-Makers

- Strongly relate the VET Reform agenda to the Economic Growth.
- Provide enhanced coordination among the policy areas of education, employment and business development.
- Develop sectoral and regional/local VET initiatives, involving public and private sector employers, regions and municipalities.
- Undertake a major planning VET exercise immediately in order to have tangible and relevant impact on Employment and Economic Recovery in the planning (5-year) period.
- Substantially expand the availability of apprenticeships at all skill levels and the development of a dual system of apprenticeships involving all education and training organizations.
- Develop a modern apprenticeship scheme designed to meet the needs of the long-term unemployed, taking account of both those with medium-low and higher skills.
- Improve the value of VET and workplace learning for all engaged stakeholders through simplifying the regulations and quality system.
- Improve the transparency of participation rules to allow enhanced choice both by individual beneficiaries and potential employers.
- Introduce a comprehensive system, in line with hereby proposed "VET Qualifications Framework", for the evaluation and monitoring of all VET provision, including the follow up of the labour market success of beneficiaries.

Recommendations for Employers

- Consider engagement to apprenticeships as mid-term investment to human resources as well as a long-term one to capacity building to increase adaptability of business model;
- Estimate return in relation to (a) the qualification/competence level of the job to be filled, (b) availability in the labour market of corresponding skills and competencies and (c) quality of the apprentice and the qualification level to be acquired.

In this context, the *Strategy for the upgrade of the quality and the increase of the effectiveness of VET, as a leveraging factor for economic growth and for the short- to mid-term increase of employment*, should address the following priorities:

1. ***Significant and in-time improvement of the quality of labour supply of not only middle-level but also of high-level qualifications, i.e. significant upgrading of the quality of graduates of the VET system***, with

such improvement being achieved efficiently through an improved relation between public spending and the quality and quantity of the outcomes;

2. ***the integration of the VET in the lifelong learning continuum and the establishment of strong linkages with the labour market and the emerging growth paradigm***, by upgrading the capacity of the labour market diagnostics framework/“mechanism”, in terms of the methodologies and procedures for the systemic and in-time availability of valid estimates, and the qualitative and quantitative needs of the economy and the labour market, being expressed in terms of specific knowledge, skills and abilities (qualifications), as it is recommended in the paper; and
3. ***The engagement of the public and private sector employers through public-private and regional partnerships, to support the employers and take them “on board”, and also to gradually increase their funding participation***, to serve the long-term financial sustainability of the apprenticeships/internships (traineeships) schemes. The employers’ engagement will be further facilitated via the joint (with the state) adoption of a periodically updated regulatory framework for the planning of medium-term objectives and instruments of employment support policies. Thus, these will be prescribed on the basis of the afore-mentioned reliable estimates of the labour market needs and in compatibility to the actions undertaken in order to improve the effectiveness of the initial (and continuous) VET system.

Such a *strategy* will only prove to be effective if concrete progress is being achieved in a limited number of “domains of (significant) change”, i.e. areas in need of structural reforms. The latter can be identified by certain (European) “know-how” legacy and “good practice”, as with the French case in the box below, while these changes are “horizontally” affecting traditionally discrete policy making areas, such as education and vocational training, employment and growth. The concrete progress asked for in these “domains of change” are the following:

- The VET reform will manage to prepare (train, provide re- & up-skilling) a sufficient number of suitably qualified individuals, in order to meet the development needs of the economy.
- A significant part of the training specialisation in terms of technical knowledge acquisitions and related skills’ development will be offered through work-based learning, gradually and in line with economic growth as well as specific business development prospects, by increasing the involvement and cost contribution of the private sector, and at the same time
- reaching a labour market equilibrium between the supply of subsidised apprenticeship & traineeship vacancies, from both the public and private sector, and the demand from the target groups of the beneficiaries, with the critical support of suitably functioning “intermediary” structures, such as regional and or sectoral public-private partnerships, as recommended in the “Action Plan” (in both scenarios) and in the paper.

7. Regulation and implementation of a wider VET expansion

The *VET-Expansion Action Plan* should encompass the re-alignment of the somehow “fragmented” *policy making areas, of Education and VET, Employment and Growth*, as it regards the corresponding changes in terms of planning and implementation, across the following “horizontal” domains of

- I. *the learning quality and effectiveness* and the bridging with non- as well as informal learning (how to prepare competent human capital through both the formal and the non-formal education and training and the informal learning/training);
- II. *the establishment and functioning of the so-called information, intermediary systems* (skills diagnostics, occupational analysis, etc.), between the economy and the labour market, from the one side, and the bodies and agencies undertaking measures and actions in order to detect and further meet the emerging training needs; and
- III. *the related capacity of the (active) labour market (employment) policies and the engagement of the employers.*

Further to these objectives, the following ones should also be taken into consideration for the planning of the *VET Reform*:

- Strengthening the large scale provision of personalised counselling and skills upgrading services, as an integral part of the upgrade of the quality of the initial VET system; this is to be supported by the enhancement of the “Employment Support Centres” as with the provisions in the “Implementation Plan” (in both scenarios).
- The VET system should gradually operate in a competitive environment by the systematic adoption of “demand-oriented” support policies (towards the employers and the beneficiaries, as further explained in the paper), facilitating a sustained quest for improvement towards innovation and quality, always searching for the ways (competitive training offers) to constitute an attractive choice for a considerable part of the population of the Lower and Upper Secondary education graduates, the latter reaching a significant percentage of at least up to 35% of this population, in the next 5 years (planning period)⁵; this will be critically served by the consistent adoption of demand-oriented ALMPs, giving the right for informed selection, eventually matching to the beneficiaries and the employers.
- The quality framework to be adopted has to ensure equivalence among multiple opportunities for citizens and especially young people, to choose among the options of the general education and those various ones offered by the IVET, while facilitating mobility (change of paths), thus increasing the prospects for more sustainable jobs and eventually contributing to growth. Moreover, the quality framework should facilitate the interoperability of a “reference system”, which will provide for valid estimates as of

⁵ This is according to the provisional “Implementation Plan” of the authorities – it would be over 40% with the “expansion plan” as presented hereby.

the conditions and needs of the labour market and reliable information and documentation for the necessary updating of the VET programs, serving the continuous improvement of training and employment support services. The latter can only be achieved if a consistent job description system – in line with the ESCO framework – and a compatible qualification framework (as recommended in this paper) are being consolidated asap (with 3/5-year periodic updating).

- The active involvement of the employers and especially of the private sector, to be joining while anticipating concrete returns, which will aim to cover their needs for skilled labour, through the adoption of quality apprenticeships schemes, together with other compatible work-based learning programs. Such an objective, which corresponds to one of the three afore-mentioned strategic priorities, can be achieved through the joint deployment of the “job/occupation” description system and the qualification framework, together with a sound and transparent cost subsidization regulatory framework.

8. VET and the Education System

An effective policy to reform the VET system should have implications for the delivery of education at large. In particular, it is necessary to:

- ensure that Lower Secondary graduates are offered the opportunity to take a quality Upper Secondary Vocational Education pathway, with the upgraded EPALs, and further on
- they are offered the option, after their completion of the first grade of the Upper Secondary (General or Vocational) Education, to enter the initial Vocational Training (EPAS), leaving the formal education system, while
- the EPAS students can complete a two-year training programme, blended with the dual apprenticeships scheme and aiming at entering the labour market or continue their vocational training pathway in the Post-secondary Vocational Training Institutes (IEKs);
- we also recommended that in order to ensure mobility and valid opportunities for those leaving formal education, the EPAS students should also be provided with the opportunity to acquire Upper Secondary qualification (ISCED level 3), via being admitted and attending “second-chance” school education centres (such as the Evening EPALs), in case they so wish.
- Furthermore, the VET reform should ensure that Upper (General) Secondary graduates — either when not continuing with formal (Higher) education or even in parallel while admitted in Tertiary Education — are offered with the option to the upgraded Vocational Training Institutes (IEKs, offering two- and one-year programs), coupled with a dual (second-year) apprenticeship scheme, leading to vocational certification (ISCED level 5), and finally

- offer the EPAL graduates — when not continuing with formal (Higher) education — to continue with the so-called “Apprenticeship Year/Grade”, leading to vocational qualification (ISCED level 4 – not 5⁶) and potential continuation to the second year of IEK programs, with further vocational specialization and ultimately into higher (EQF) level vocational qualification of ISCED level 5.

VET Qualifications Framework⁷

We recommend that the VET Reform should also adopt the following provisions incorporated in a **Regulatory Framework** to be consolidated during the first 12 months of the Plan of Actions to be launched:

1. As it regards the proficiency levels (both ISCED and EQF), **Qualification Level 3** could be reached with the graduation of the Upper Secondary Education, the EPAL included, following the international standard.
2. **Qualification (academic and professional) Level 4** could be reached with the completion of the first year (or better by collecting some minimum number of credit units) of studies in a Post-secondary VET Institute (IEK), while the same
3. **Qualification (professional) Level 4** could be reached with the completion of the “Apprenticeship Year”, following the EPAL graduation.
4. **Finally, Qualification (academic and professional) Level 5** could be reached with the completion of the (minimum) two-year studies (or better by collecting some minimum number of credit units), and external accreditation assessment, accompanied by a pre-defined apprenticeship program, in a Post-secondary VET Institute (IEK).

At the same time, only the **Qualification (academic and professional) Levels 4 and higher** must be considered requiring certification, through external assessment. The **(professional) Qualification Levels 3 and 4**, which correspond to the EPAS graduation and the completion of the post-secondary “apprenticeship year” (in the EPALs) accordingly, could be followed

- (a) *for the case of the EPAS graduates* by admission to enhanced IEK programs, which after the first year of studies will *offer the opportunity to be certified for (academic) Qualification Level 4* (additional to the professional one of the same level), and
- (b) *for the certified EPAL Apprentices* by further admission to the second year of studies in the IEKs, *to reach with this further training (with or without apprenticeship⁸) the Qualification Level 5.*

⁶ This would need an amendment of the Law 4186/2013.

⁷ The qualification framework implied in the submitted “National Strategic Framework for VET” corresponds to the provisions as with the Law N.4186/2013. These provisions are not consistent and are not in line with the European and international standards. Furthermore they are not compatible to a sound quality framework, constituted by compatible vocational and professional criteria as well as learning outcomes.

⁸ It should depend on the level of apprenticeship experience (work-based learning) reached during the preceding apprenticeship year (could be measured in time intervals, e.g. hours/days spent, or better with tasks adequately completed).

9. Budget and Employers' contributions

In order to ensure that the *VET Reform Strategy* will deliver, any *Action Plan for the upgrade and expansion of the VET and the Apprenticeships* (as in Appendix 2 and in Part III in the paper, see also with the "*Implementation Plan*") has to embed a number of proposed actions, to be budgeted against potential funding sources (ESIF OP Investment Priorities and other sources), taking into account the gradual increase of the involvement of the private sector. When preparing the Action Plan, special attention should be paid to the analysis of the critical factors, the preparatory actions and the proposed ways of addressing the inherent risks entailed in implementing this *Action Plan*, together with the critical tasks for supporting this implementation of the *VET Reform*. This is particularly the case when the proposed expanded *VET Reform Plan* is being adopted.

It should be noted that, based on the calculations in this paper (see also in hereby Appendix 2), the budget of the provisional *Implementation Plan* will be in the order of some € 558m, while the *Expanded Plan*' s budget will be around € 808m (as in the tables in Appendix 2), and more specifically, being in line with the prevailing international and European "practice",

- some 90% of this budget, and 92% in the case of the *Expanded Plan*, is targeted at boosting the demand of labour, offered with dual (blended) work-based training schemes (employment support and employers' preparation), with
- some 8%, and 6.5% for the expansion, targeted at strengthening the matching capacity, with bodies and "intermediary structures" servicing this matching of job vacancies – with work-based learning –, to be offered from the employers and the (supply of) candidate apprentices and trainees, and with
- 1.4%, and 1% in the case with the expansion, to be deployed in order to substantially upgrade the quality of the VET offer.

Critical elements of success for the due expansion of the VET system and the apprenticeships correspond to certain quality benchmarks – including the qualification framework, the staff preparedness and the adoption of the "one-stop-service" practice - to be met by the (limited) budgeted funds targeting the upgrade of the VET supply (i.e. the quality upgrade of the corresponding IVET offer). It should be further recommended that additional funding to strengthen this quality upgrade could target both the Post-Secondary Vocational Training system (IEKs & Lifelong Learning Centres) – which as previously shown corresponds to a driving priority of the *VET Reform* – and the Upper Secondary Vocational Education level (EPALs). In the case when additional funding could be secured, from either the ESIF⁹ or the long-term lending schemes, the scaling up of the foreseen actions as in both the scenarios presented (in Appendix 2), targeting the EPALs and the Post-Secondary VT, could be embedded in the Action Line III and be addressing

⁹ In the currently agreed upon with DG EMPL version of the OP "HRD-LLL" 2014-20, there are provisions for the upgrade of the quality of the formal education system (i.e. for the EPALs) and for the CVET actions (i.e. both the KEKs and IEKs) and corresponding funding to serve the *VET Reform Plan*.

- the capacity building – with large-scale training activities – for the EPAL teaching and administration staff, and
- the significant boosting to the operational framework and quality standards of the IEKs, with gradually increasing the teaching staff qualifications, together with their training and competence development – to offer reliable professional competence/qualifications Level 5 study programs.

VET costs to Employers

We consider necessary to suggest that (a) given the anticipated rather fragile growth for the next 2-3 years, while (b) this growth will be mainly supported, apart from any foreign investment, by the sophisticated advancement of the competence level of the skilled labor force, and that (c) there should be a significant number of VET programs to support the re/up-skilling of individuals and especially of the long-term unemployed, a certain rationalization of the remuneration rate levels of the apprentices/trainees becomes necessary. We are hereby recommending the following as it regards the further identification of these remuneration rates.

1. For the *apprenticeships on VET programs for school-leavers*, leading to Qualification Levels 3 and 4, the minimum remuneration should not exceed 75% of the minimum wage settled (according to the labour market regulations), for the work provided through the work-based learning activities (with the contribution of the employer to fully cover the social security cost plus part of the payment to the apprentice, being not less than 45% of the total monthly/daily employment cost).
2. The same should hold for the apprenticeships leading to certification of the Qualification Level 5, i.e. the minimum remuneration should not exceed the 75% of the minimum wage settled, with the same quota as it regards the contribution of the employer.
3. Finally, for the corresponding *programs for the long-term unemployed*, with the wide adoption of traineeships (blended, dual training scheme), the minimum remuneration should equal the minimum wage settled, again with the same as above norms as it regards the contribution of the employer.

It should also be mentioned that for the case of the CVET programs addressing the unemployed, and more particularly whenever the specific type of the *Job Guarantee* schemes are deployed, the employer's contribution could further be decreased to reach a minimum contribution corresponding to the social security cost zero, only whenever certain conditions are prevailing.

APPENDIX

TABLE I - Baseline Scenario (in line with provisional "Implementation Plan")

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Lower Second Educ Grads	102,008	101,923	98,868	93,956	95,437	95,000	95,000	95,950	96,910	97,879	98,857
EPAL Grads	26,711	24,992	25,759	28,052	28,865	26,186	28,000	29,400	30,870	32,414	34,034
EPAL Apprentices Accredited							4,200	5,880	7,718	9,724	10,210
EPAS Students	29,266	31,602	32,708	23,485	12,532	15,000	14,500	14,645	14,791	14,939	15,089
EPAS Apprentices							13,050	13,181	13,312	13,445	13,580
EPAS Apprentices Accredited							6.525	6.590	7.987	8.067	8.148
IEK Students (2nd Year)					30,000	30,000	30,000	33,000	36,300	39,930	43,923
IEK Apprentices							6,000	9,900	14,520	19,965	21,962
IEK Apprentices Accredited							3.600	5.940	11.616	15.972	17.569
IVET Students – Total	55,977	56,594	58,467	51,537	41,397	41,186	72,500	77,045	81,961	87,283	93,046
IVET Apprentices – Total							23,250	28,961	35,550	43,134	45,752
IVET Apprentices Accredited - Total							12.645	15.050	25.392	31.332	33.375

TABLE II – Expanded Plan Scenario

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Lower Second Educ Grads	102,008	101,923	98,868	93,956	95,437	95,000	28,000	30,800	33,880	37,268	40,995
EPAL Grads	26,711	24,992	25,759	28,052	28,865	26,186	5,600	9,240	13,552	18,634	20,497
EPAL Apprentices Accredited							3,360	5,544	10,164	13,976	15,373
EPAS Students	29,266	31,602	32,708	23,485	12,532	15,000	13,050	13,703	14,388	15,107	15,862
EPAS Apprentices Accredited							6,525	6,851	8,633	9,064	9,517
IEK Students (2nd year)					30,000	30,000	7,500	13,200	19,800	30,888	50,450
IEK Apprentices Accredited							4,500	7,920	15,840	24,710	40,360
IVET Students - Total	55,977	56,594	58,467	51,537	41,397	41,186	72,500	79,025	89,466	105,534	130,692
IVET Apprentices - Total							26,150	36,143	47,740	64,629	86,810
IVET Apprentices Accredited - Total							14,385	20,315	34,637	47,750	65,251

