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# Private sector responsive vocational education in Serbia

## Building a sustainable platform for reform

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## Abbreviations

AVET	Association of Vocational Education and Training
CoCI	Chamber of Commerce and Industry
CVAE	Council for Vocational and Adult Education
IIE	Institute for the Improvements of Education
M4P	Market systems development approach
MoESTD	Ministry of Education, Science and Technological Development
MoU	Memorandum of Understanding
NEC	National Education Council
NES	National Employment Service
SDC	Swiss Agency for Development and Cooperation
S-PSD	Private Sector Development programme South Serbia
Veeda	Regional Development Agency for Economic Development and Entrepreneurship of Pčinja District
VET	Vocational Education and Training

### **About the programme**

*In 2010, the Swiss Agency for Development and Cooperation launched a private sector development programme in south, southwest, central and east Serbia aimed at fostering sustainable employment and income creation. Its goal was “creating opportunities for new and more productive jobs and additional income for poor women and men, youth and micro-enterprises in Serbia”.*

*Now in its second phase, the South Serbia Private Sector Development (S-PSD) programme is implemented by the Vranje Regional Development Agency (VEEDA). As important sources of income and employment in southern Serbia, the programme focuses on improving employment and income in the wood processing and furniture manufacturing industry and in horticulture and Non-timber Forest Products. The programme’s second phase started in October 2014 and covers 14 districts in south, southwest, central and east Serbia.*

*In executing its mandate on behalf of SDC, the S-PSD programme applies the market systems development approach. Emerging from project experience worldwide, the approach provides programmes with strategic direction to achieve large-scale and sustainable change in market systems which positively impacts poor and marginalised people. Rather than providing temporary direct assistance to target beneficiaries, the ‘M4P’ approach focuses on achieving systemic change in markets that matter to the target groups and advocates and provides guidance for a facilitative role for development projects and agencies.*

## Executive summary

The challenges of economic liberalisation and the global economic downturn have had a far reaching and structural impact on the Serbian economy. Unemployment rates, particularly amongst the youth, are some of the highest in the Balkans. Traditionally strong, export-oriented sectors like wood and furniture have struggled to remain competitive and to match the productivity levels of regional and international competitors.

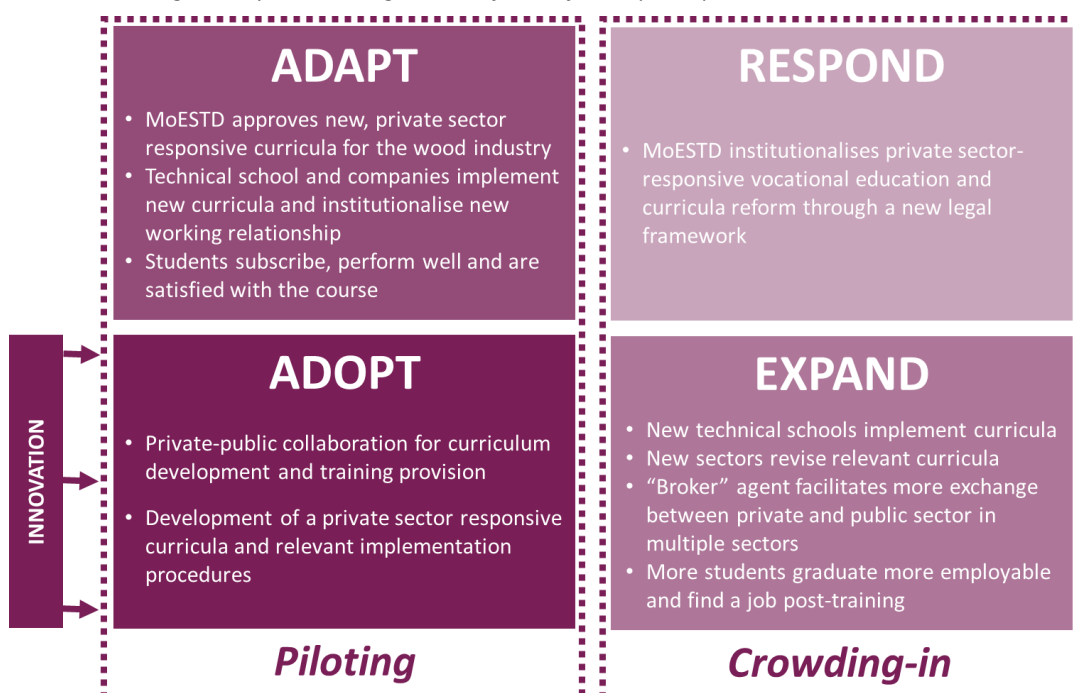
The SDC-funded South Serbia Private Sector Development (S-PSD) – a market systems development initiative – targets high potential sectors like wood and furniture, aiming to strengthen youth employment opportunities. Whilst the sector offers considerable employment potential, it faces a number of constraints – none more significant than the growing skills gap between new and existing employees and the evolving needs of employers.

Working with private businesses and a dynamic training provider, S-PSD set out to understand why, despite a shared need for better skills outcomes, a more private sector-responsive approach to vocational education had not emerged. The programme conceived and piloted a curricula review and development process, shaped and driven by private sector employers, in close collaboration with training providers and government stakeholders.

The challenge was not so much technical as one of building mutual trust and credibility between public and private partners to effect a more collaborative and inclusive vocational training reform process with a greater role of companies in training. S-PSD's point of departure was to identify the mutual interests of employers and training providers and to broker a collaboration to not only review curricula, but to challenge conventions around workplace-based training delivery and to influence national decision makers.

In just over 2 years, collaboration between S-PSD and its partners has resulted in the successful introduction of a streamlined, gender-neutral curricula for the wood and furniture sector. The new profile represents a successful public-private collaboration in the design and application of vocational education, stimulating uptake in other sectors and profiles.

Figure 1: Systemic change matrix of S-PSD for the public private collaboration in vocational education



The intervention has been transformative. It has changed the debate on private sector-responsive vocational training within Serbia, and amongst donors and other stakeholders. It has leveraged innovation and investment by schools and companies, and encouraged students and parents to prioritise employability in education decisions. The programme has catalysed and demonstrated sustained practice changes among a range of public and private market players.

The case provides some invaluable lessons and implications for applying a market systems development approach to vocational education challenges:

- In a programme where impacts on employment and income will necessarily take time to emerge, robust ongoing measurement of behaviour and practice change results is imperative for programme and donor stakeholders alike.
- S-PSD's experience also demonstrates the value of the adaptive approach that is the essence of market systems intervention. S-PSD's vision has crystallised into support to private and public sector players by building their capacity to develop more private sector responsive vocational education. As the market system responded to the innovation, the role and tactics of S-PSD evolved in order to support institutionalisation of the curricula reform process. Focus shifted from individual sector partnerships to other players that are crucial to widen outreach and increase the sustainability of benefits to the youth.
- At the heart of S-PSD's success has been catalysing genuine ownership of a more private sector responsive vocational education system. Where previous efforts to introduce similar systems have faltered, S-PSD invested most of its time and resources in brokering effective partnerships between industry, training providers and government. Private sector businesses in particular have been empowered to take control of vocational training reform and as a result a better quality, more relevant, practical and gender-responsive training outcome has emerged. At the same time, the process has empowered government to strengthen its own role as a facilitator rather than a micro-manager of vocational education provision.
- The S-PSD team employed a range of tactics from technical support and cost-sharing, to trust-building, lobbying and political diplomacy. It has been the utilisation of these 'softer' tactics, however, that has underpinned S-PSD's ability to engender ownership and leadership from private businesses and technical school stakeholders. The ability of the S-PSD team to build the trust, confidence and capacity needed to effect a valid reform process proved more valuable than any technical contribution. S-PSD's ambition for sustainable system change ensured process was prioritised before technical solution and this has been the key both to immediate results and, importantly, the sustainability of those results.

The private sector-responsive vocational education model piloted by S-PSD and its partners has received national recognition and has been introduced into the newly drafted national legislation as a basis for reform. Vocational education policy and process in Serbia will continue to evolve but, importantly, informed by the experience of S-PSD and its partners – cited by one Swiss vocational education expert as the « *best model for tailor made dual education outside of Switzerland* ».

## Serbia's unemployment challenge

Economic liberalisation and the global financial crisis have hit Serbia's labour market hard. Unemployment rates are amongst the highest in the Balkans region, particularly amongst lower skilled, youth and rural populations<sup>1</sup>.

Structural problems inherited from the socialist system were not addressed during the transition. Therefore, the high un- and underemployment rates were exacerbated by the new economic crisis. Attempts to mitigate and 'smooth' these immediate cyclical issues in the market have had little effect (Gligorov, 2010). Consequently for much of the last decade Serbia has suffered from a weak economy, slow to create new employment opportunities and, importantly, to invest in a skills sector increasingly lagging behind national and international needs.

These widening skills gaps restricted Serbia's industries' ability to recover and inhibited future performance. Its once thriving wood and furniture sector is a case in point. Prior to the conflict and sanctions of the 1990s, Serbia enjoyed a strong reputation for its wood and furniture industry based on relatively abundant natural resources<sup>2</sup> and a skilled workforce producing quality products for local and regional markets. Production levels plummeted during the 1990s and early signs of recovery in the early 2000s were short-lived as the industry struggled to adjust to economic liberalisation, privatisation and the economic crisis.

More recently, the sector has again shown signs of recovery, but recapturing its markets is taking time. The sector contributes significantly to the economy. It is the third most important industry after agriculture and food, accounting for 1.4% of GDP (2014); nearly 4% to total industrial production (Chamber of Commerce, 2017); and 5.7% to exports (2013).

Despite its challenges, Serbia continues to dominate the regional market for processed wood and manufactured furniture and enjoys significant trade with the EU, Switzerland, Turkey and the Russian Federation. Between 2010 and 2013, exports grew by almost 50%. This export orientation has, once again, begun to attract much needed foreign investment, driven in part by European companies seeking vertical integration in the furniture value chain.

In terms of employment, manufacturing as a whole is the second largest employer in Serbia<sup>3</sup>. Wood processing and furniture production employs an estimated 21,839<sup>4</sup> people – or 7% of all manufacturing jobs. Importantly these jobs represent fulltime employment, primarily for those between the ages of 21 and 39 years. Some 30% of workers are women. Employment in the sector offers relatively high wages, as well as job security, compared to agriculture<sup>5</sup>.

The importance and potential of the wood and furniture sector – particularly the opportunity for youth employment – led the Swiss Agency for Development and Cooperation (SDC) to target the sector as part of its south Serbia private sector development (S-PSD) programme. Launched in 2010, a priority task for S-PSD was therefore to understand the constraints facing the wood and furniture sector and the opportunities it offered for addressing youth underemployment in south Serbia.

### Performance issues in the wood and furniture sector

The analysis of challenges to sector performance led S-PSD to identify a number of inter-related constraints. They included compliance with quality standards and production deadlines, product

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<sup>1</sup> Youth unemployment in Serbia is among the highest in the region with 51% (EuroStat, 2014)

<sup>2</sup> 30% of Serbia consists of 'mid-level' forest (Džinčić, 2015).

<sup>3</sup> Agriculture and Manufacturing account for 21% and 17% of employment respectively.

<sup>4</sup> Approximately 60% of these are employed in the furniture manufacturing industry.

<sup>5</sup> Earnings are on average 350 EUR per month, rising to 5000 EUR for more qualified workers.

design, technological modernisation, operational cost efficiency, export market penetration and diversification (Veeda, 2014a; Džinčić et al., 2015). Whilst these challenges affect micro and small enterprises differently to medium and larger businesses, they nonetheless represent shared constraints to future sector growth (see Annex 1).

The two major challenges for the industry’s competitiveness and, more specifically, its productivity are the inter-connected issues of technological innovation and labour productivity. Firstly, limited information flow on technological innovation has slowed rates of modernisation in Serbian factories, exacerbated by poor access to affordable finance. Secondly, the quality and productivity of the often ageing workforce is relatively low<sup>6</sup>. Those companies that have modernised production lines lack access to the necessary skills to operate new technologies.

Figure 2: The production and skills market systems

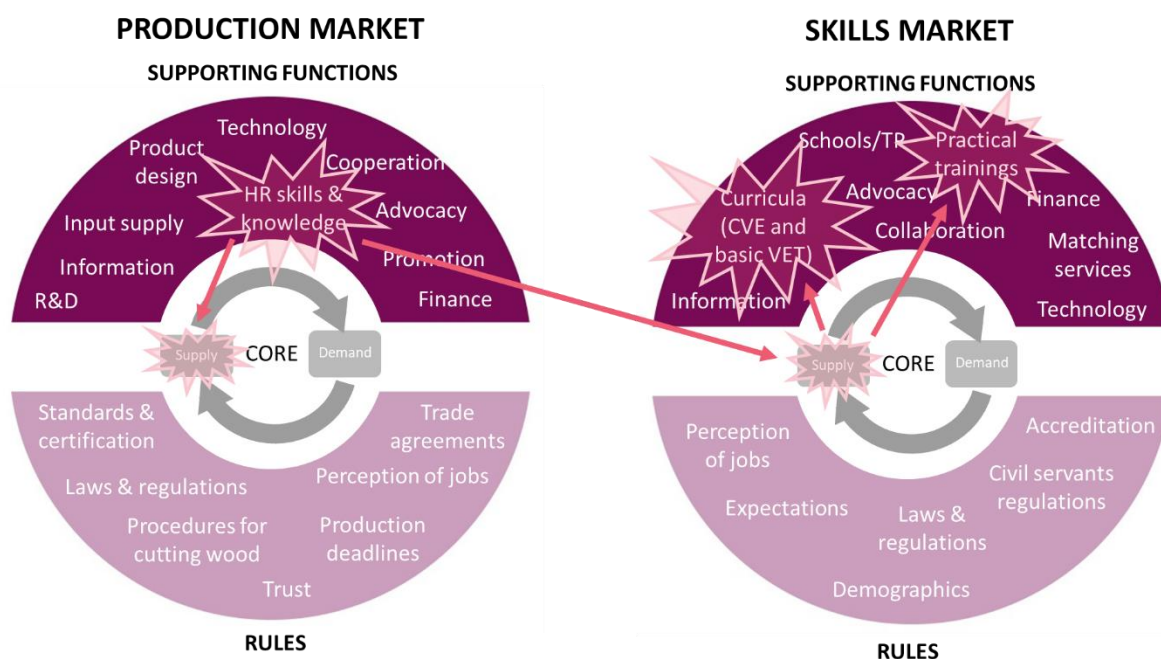


Figure 2, above, illustrates how weaknesses in the wood and furniture market, and more specifically in productivity, were traced to the relevance of employees skills and capacities and to vocational curricula and training provision. Whilst manufacturers prefer hiring young people – perceived to be more responsive to changes in production and skills – too few unemployed young people offer relevant skill sets<sup>7</sup>.

Technical school graduates in upholstery, carpentry or varnishing lack the range and quality of skills or the expertise increasingly required by employers because school curricula have not kept pace with changes in technology and process. More integrated production lines demand less specialisation and a broader set of practical skills and knowledge of different machinery and processes. Technical school curricula remains overly theoretical whilst the practical skills and salary expectations of university graduates are also poorly matched with employer needs.

<sup>6</sup> Labour productivity in Serbia (in RDS), 2009 – 2013 (CEVES):

	Serbia	Furniture	Wood products
Productivity of average firm	642 000	546 000	506 000
Labour productivity per employee	1 627 000	760 000	958 000

<sup>7</sup> Skills ‘matching’ services of the National Employment Service (NES) appear to have had limited impact on the paucity of appropriately skilled workers to draw upon.

The investment cost to companies to address the skills problem on-the-job is considerable. The cost of training is exacerbated by reduced productivity and wastage during training. Most employers regard this as a necessity, despite the investment cost and the transaction costs (or risks) of recruitment<sup>8</sup>. Induction includes substantive elements of basic skills training in wood handling and processing which are inevitably offset by lower salaries for new employees and increasing tendency to source cheaper, unskilled staff on the assumption basic training will be required irrespective of qualifications and salary expectations<sup>9</sup>.

## The root causes of mismatching skills

The critical question for S-PSD was why the skills gaps continued, despite a not insignificant flow of government and donor initiatives aimed at addressing constraints in the vocational education sector. The apparently strong demand from companies and employers for better and more relevant skills had not led to material improvement in the quality of either formal (institution-based) education for youth or workplace-based training for workers<sup>10</sup>. S-PSD's consultations in the formal education system highlighted a number of closely related issues:

- **Out-dated curricula:** Curricula in technical schools provided for a suite of 4-year courses based on theoretical content much of which could be traced back several decades. These curricula had not adapted to the evolving skills needs in the sector.
- **Limited practical training or facilities:** Trainees were not provided with practical skills in operating a variety of modern machinery or exposed to the production process as a whole. A focus on theory left the students without hands-on, practical skills.
- **Limited engagement and relationships with private sector:** Poor links existed between skills providers and private sector employers. S-PSD found that changes to curricula and content or addition of new courses, was led directly by the Ministry of Education, Science and Technological Development (MoESTD) and Association of Vocational Education and Training (AVET). Private sector engagement and consultation in the process was largely limited to feedback on revised curricula, offering little or no opportunity to shape changes.
- **Collaboration with the private sector:** Schools facilities and trainers are limited to provide a broad range of practical skills in-house. The private sector, on the other hand, has access to both facilities and practical skills but are not set up to provide on-site training to youths because of pedagogic and safety requirements.
- **Parent and student perceptions of the sector:** Companies, schools and other stakeholders all cited the negative perception among parents and their children of 'manual' labour as a career option and the lack of career advice services and labour market information to the public.

## A vision for private sector responsive vocational education

The underlying causes of skills mismatch in the wood and furniture sector and the failure of previous reform efforts both pointed to weaknesses in the process of reform itself.

Within an overall vision for the sector (see Box), S-PSD focused on the formal education sector with the objective of establishing more effective public-private collaboration in developing and delivering

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<sup>8</sup> By law probationary periods are limited to 6 months and carry binding contractual commitments akin to fulltime contracts.

<sup>9</sup> In 2013, 83% of the employees were unqualified or prequalified workers and many vacant positions could not be filled (Veeda, 2013).

<sup>10</sup> S-PSD engaged in both formal and workplace-based training. This case focused on its work in the formal vocational education system.

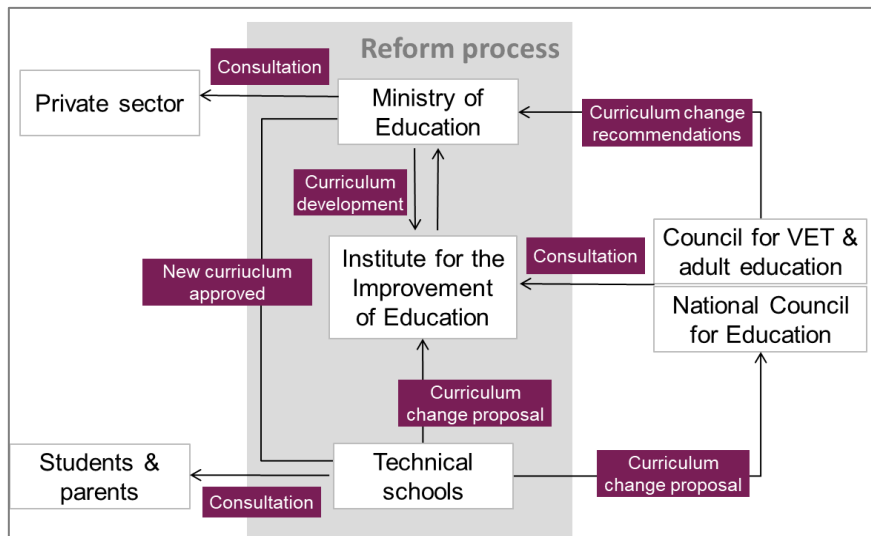


improved vocational curricula and training targeting the employability and productivity of young workers. Importantly, and in contrast to conventional initiatives, S-PSD prioritised 'process' over the delivery of any specific vocational training 'solution' and this determined both the nature and direction of its intervention.

**A sector vision:**  
*A well-functioning wood sector market that accesses an adequately skilled labour force and coordinates / networks among market players to increase productivity and sales. The improved performance of the market will generate new employments and better incomes for young people in south and southwest Serbia.*

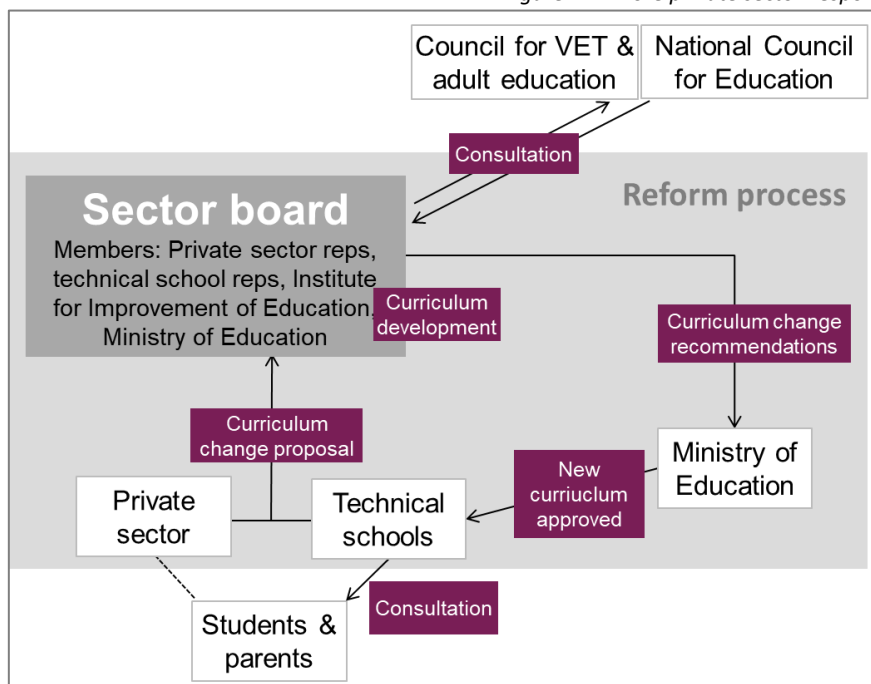
The prevailing process for reviewing curricula was driven by technocrats in the MoESTD in consultation with relevant technical agencies and education sector representatives (see Figure 3).

Figure 3: Stylised curricula reform process, circa 2010



S-PSD envisaged a process enshrining wider private sector involvement and leadership in defining and shaping required vocational skills, supported by relevant public training providers and government agencies. This more 'private sector-responsive' model is depicted in Figure 4.

Figure 4: A more private sector-responsive reform process



## Player incentives and capabilities shape intervention opportunities

During phase 1, S-PSD engaged in an extensive screening of market players which led the programme to engage first in the non-formal training market. This leveraged the immediate commercial incentive of private sector partners facing imminent skills shortages and hence their willingness to invest in training. It also offered S-PSD an opportunity to deepen its own understanding of players' capacities and incentives and the skills market in general while building its credibility with private and public stakeholders in the vocational education sector.

In 2013, S-PSD ventured into southwest Serbia to scale its out-sourced training service model. This geographical shift proved significant. The need for a supply of relevantly qualified youth graduates had been recognised by S-PSD from the outset, but the right opportunity had thus far eluded them. This changed when the programme extended into Uzice where they found players to engage with that demonstrated both the capacity and willingness to address the formal education challenge.

### Seven capable private businesses

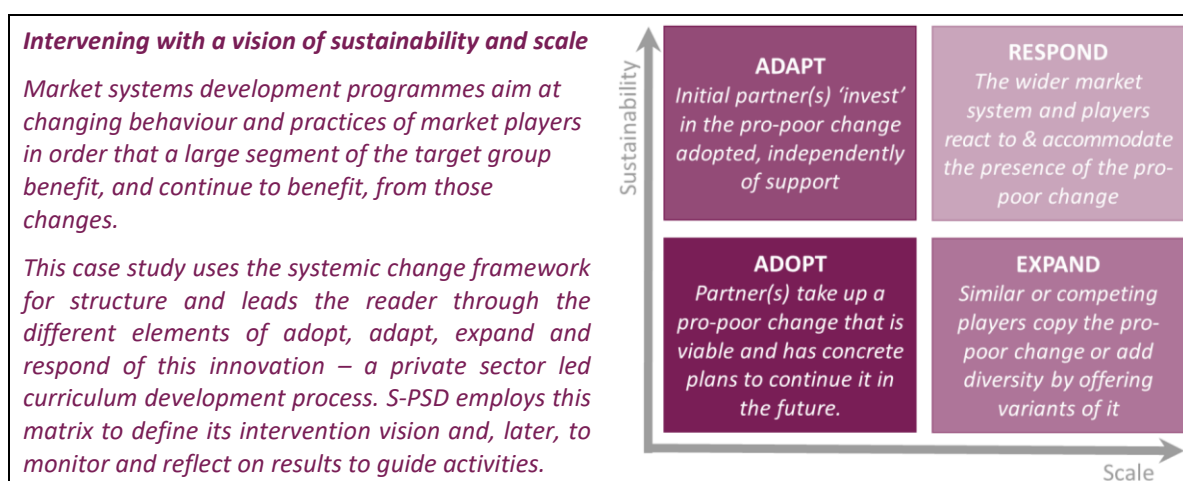
A number of medium to large scale factories operating near Uzice, struggling to remain competitive in their respective regional markets, were identified with a shared vision for investing in more and better skills and, importantly, a willingness to collaborate with one another in order to develop the sector.

### One motivated technical school

The technical school in Uzice, whilst not specialising in wood and furniture trainings, nevertheless demonstrated a willingness to diversify and improve its 'offer' led by a forward-thinking Director willing to take risks and engage with private sector partners.

## Adopting an innovative collaboration

Figure 5: A systemic change agenda



## Brokering collaboration and building partnerships

The evident alignment of interests for both school and companies pointed to other, less apparent factors preventing these stakeholders from working together to reform curricula and formal training. Key amongst these, S-PSD identified limited links to the private sector and narrow understanding of private sector needs and capabilities on the part of the technical school, and limited confidence in the capacity of the technical school to reform on the part of companies. S-PSD shaped its intervention strategy around these partner-specific challenges to bring the two sets of partners together more formally.

Whilst S-PSD's immediate task was to forge collaborative relations between the school and companies, the way in which this happened was equally critical. From the outset, S-PSD nurtured and encouraged the leadership of the school Director.

Veeda had individual exchanges with each company in person and by phone and, in mid-2013, facilitated an initial exchange between the companies and the school. The meeting provided a forum for the school Director to take on a crucial role in coordinating and advancing a public-private collaboration.

Prior to this, the school undertook a survey of seven more progressive companies as a means of understanding better the skills gaps faced and the weaknesses of the current school offer. The survey explored general business information, labour force challenges and company approaches to overcome these. Among other things, the survey confirmed an expected skilled labour shortfall amongst the seven firms of at least 200 workers in the next three to five years.

The survey process helped build confidence amongst the companies in the intent and commitment of the school Director and who, overtime, assumed an increasingly active lead in the process. In May 2013, the school led the first meeting of the working group to define the skills mismatch.

***The private sector perspective on the skills gap***

- *There is a shortage of qualified professionals.*
- *Curricula are too theory-based, with insufficient practical skills development.*
- *Vocational profiles need refining to reflect the broader skills-base required for modern production lines.*
- *Graduates need to be familiar with the 'whole' production process and have opportunity to hone practical skills 'on the factory floor'.*
- *To date, potential employers have not been actively engaged in reviewing or developing relevant education curricula, materials or methods.*
- *Companies need to engage in shaping the knowledge and skills of students through participating in curricula development and providing practical training.*

The meeting laid the ground for a Memorandum of Understanding in February 2014 between the seven companies and Uzice technical school. The MoU established a working group to lead an in-depth review of training curricula and pedagogy with the aim of developing a set of more relevant, private sector responsive courses delivered collaboratively between the school and participating companies.

**Accustom to a collaborative vocational skills reform process**

The working group met multiple times over the course of three months to review three key sector profiles – those of carpenter, upholsterer and varnisher. The task was one of identifying critical skills needs within each profile and where changes could and should be considered. S-PSD provided the support of two curriculum development specialists to advise the working group both technically and with regards to regulation of the MoESTD, the National Education Council (NEC) and the Council for Vocational and Adult Education (CVAE).

By the end of March 2014, the working group had set out its recommendations in a detailed draft curriculum and profile ready for submission and discussion with the MoESTD. Active involvement of private companies in the working group had led to some radical recommendations. Not only were content, structure, timetable and reference materials changes proposed, but also a new single combined profile for *Furniture Design Operator* over three, not four, years.

Over the following 12 months, further procedures were developed which were paramount to introduce practical training in both school and factory locations and to provide for safety and quality assurance measures for students (see box below). The school and companies also identified investment and capacity building needs for implementing these procedures with their staff.

**Safety and quality assurance procedures**

- *School representatives to assess each production plant to affirm the availability of necessary equipment, machines and tools, the safety and conditions of the workplace and the capacity to accommodate pupils.*
- *Detailed guidelines on health and safety requirements of premises, equipment and teaching tools*
- *Mandatory two-month safety and health course for students, paid by companies.*

**Quality assurance procedures**

- *Legal regulations covering partnership contracts between the companies and the school (including company coverage of school staff costs during on-site training), and training 'contracts' between students, companies and the school*
- *On-site training structure and timetable for students over the 3-year profile*
- *A workbook format established to record practical skills acquired (and contributing to semester grading) during each practical training to be signed by the company mentor.*
- *Definition of formal responsibilities of company mentors and on-site school staff.*
- *Guidelines on educational qualifications and skills requirements for on-site teachers, teaching assistants, professional associates and support teachers. Three teachers were trained to accompany students during all their practical training. These teachers are paid by the companies.*
- *Training plan for assigned company mentors in adolescence pedagogy: The companies identified seven internal mentors which were trained in adolescence pedagogy by the school's education experts. They are responsible for the on-site trainings of students.*
- *Full list of textbooks and other relevant documents accompanying the new curricula.*

**Gender equality in the workplace**

*To give girls the same employment opportunity and counter the common fallacy that only men can do jobs in the wood sector, the course title was chosen in a way that reflects a gender neutral career.*

*The companies also strongly emphasised a more gender neutral work environment and attitudes in the workforce by fostering fair and respectful treatment of workers regardless of gender. This was reflected in the provision of separate lockers, changing rooms and toilets.*

Results - Piloting a more collaborative vocational skills development process

*Public-private collaboration*

The collaboration forged between companies and the Uzice technical school represents one of the first examples of genuine private sector engagement in vocational curricula reform in Serbia. Historically low levels of mutual understanding and trust between private companies and public education facilities were overcome, and the preconceptions of both as to the feasibility and appropriateness of private company involvement in both curriculum development and practical training delivery, were successfully challenged.

*A mutually beneficial curricula innovation*

The review process produced, at first, clear recommendations and, ultimately, a fully drafted curriculum and delivery framework for a more relevant and up-to-date vocational curricula responding to the current skills requirements of the labour market. The output is highly valued by

**ADOPT**  
*If we excited now,  
 would partners return  
 to their previous  
 way of working*

both parties. The shorter, more practically-oriented course better reflects the skills needs of employers. Equally, a rationalised and more practically-oriented course that increases employment and salary prospects offers the school a more marketable product through which to attract students. The rationalised vocational education profile is also believed to decrease training costs for employers as well as technical schools<sup>11</sup>.

## Institutionalising a private sector responsive curriculum

### Collaborative action to embed reform

Having developed a more private sector-responsive curriculum, the working group set about securing its formal approval by the MoESTD. To achieve this, S-PSD and its partners needed to understand and navigate an otherwise opaque and non-participatory curricula reform process.

The experience of the school Director proved invaluable in understanding the process and organisations involved and which informed the strategy with the MoESTD. Critically, S-PSD recognised from the outset the need to target and engage different decision makers in the MoESTD to raise awareness about the benefit of private sector involvement in the curricula development process.



S-PSD supported the working group to identify and engage a number of critical entry points and associated decision makers upon which the success of reform recommendations would depend. This analysis drove a multi-partner intervention strategy from summer 2014 to early 2015.

### *Raising awareness within the Ministry of Education, Science and Technological Development*

The Department of Secondary Education and Adult Education within the MoESTD is the authority which approves new vocational curricula and thus critical to the reform process. Using the networks of the school Director and S-PSD's intervention manager, two meetings were convened with the person responsible for secondary education and the Assistant Minister of Secondary and Adult Education. Both meetings sought to secure 'technocrat' engagement and awareness of S-PSD's curricula reform on a national level.

S-PSD also used its working relationship with its funder, SDC, to advocate amongst political decision makers. In January 2015, SDC facilitated a meeting with a Special Advisor to the Minister of Education with significant influence over policy direction the MoESTD. The Special Advisor was very receptive to the concept and practice of private sector-led curricula reform and on-site training. Subsequently, during an investment forum in Switzerland in June 2015, S-PSD was provided an opportunity to showcase the work of its partners to both the Prime Minister and the former Minister of Education. This proved a successful lobbying opportunity to obtain the highest level support for reform, and a tipping point for securing cooperation at national level<sup>12</sup>.

<sup>11</sup> The mismatch in the labour market cost an employer approximately 5'000 EUR to train a new employee over a period of up to five months.

<sup>12</sup> A Memorandum of Understanding was signed on 31<sup>st</sup> July 2015 between SDC, S-PSD and MoESTD for furthering the private sector-responsive vocational education model and, in particular, forming a Sector Board in forestry and wood processing.

### *Technical assistants from education experts*

The working group agreed their best strategy was to develop a fully elaborated proposal for a new curriculum and to take a fully formed 'product' to MoESTD. In doing so, it was agreed to involve MoESTD-recognised education experts to help draft the curriculum and to maximize the chance of approval by the MoESTD.

Importantly, the experts engaged were familiar with the relevant public procedures and legal requirements, and had links to the Institute for the Improvement of Education (IIE) responsible for reviewing all newly developed curricula proposals.

### *Creating consensus between Ministry and the private sector*

The working group worked closely with the Ministry in reviewing the drafted curriculum. The MoESTD brought in various experts and interest groups, including the IIE, to discuss the new curriculum and its delivery implications. This included skills required from the industry, necessary modules and content, human resources in companies and schools, capacities of the different parties to train students, as well as legal obligations and procedures.

In December 2015 the working group submitted a revised curricula to both the NEC and CVAE. In February 2016, after 26 months of intensive facilitation, the MoESTD approved the new curricula for introduction in the academic year 2016/2017 and announced it to all technical schools across Serbia.

### *Putting new curricula to the test*

The working group had already established all the necessary procedures to introduce the new curriculum into the technical school and the companies. In the following months and in preparation of the first class in August 2016, the partners:

- ❖ *implemented all necessary procedures.* This included
  - The technical school hiring four teachers, of which three primarily work in the companies to deliver the new curricula, preparing workbooks for the students, developing the placement schedules with the companies, and signing tripartite contracts between companies, parents and the school.
  - Companies agreeing and finalising health and safety measures, identifying and train mentors on pedagogy, purchasing appropriate work clothing for students, organising a two-month health and safety training for the latter, and establishing all necessary facilities for female and male students.

- ❖ *conducted an awareness raising campaign on the new profile to attract new students.*

This meant promoting a new 'blue collar' profile to both students and parents to address negative perceptions of such career opportunities. S-PSD supported the school's promotional efforts utilising a variety of flyers and brochures, TV, radio, and presentations at elementary schools<sup>13</sup>, and open days at both the school and participating companies. Open days in companies were organised again in 2017 and the private sector representatives discussed the training and job opportunities in various interviews and other media.



<sup>13</sup> The strategy included engaging with both teachers and school psychologists, often the first contact point for pupils exploring career options and advice.

## Results - From partnership to ownership and buy-in

S-PSD has seen its key partners take increasing responsibility, not only for the curricula review process, but for securing its approval at national level and, ultimately, preparing for and delivering the new course. With approval of the curriculum has also come institutional recognition from the MoESTD for a bottom-up and more collaborative vocational education reform process.

**ADAPT**  
*If we exited now, would partners build upon the changes adopted without us?*

### *Behaviour change at the Ministry*

External dynamics and significant advocacy activities from S-PSD resulted in the MoESTD understanding and recognising the value of genuine private sector engagement in vocational education, as a producer as well as consumer of vocational skills. During the process running up to the curriculum approval, the MoESTD and its various technical units reviewed and contributed to the curriculum development with the working group over multiple sessions.

### *Private sector investment in vocational education*

Both parties realised the importance of active participation from the private sector in vocational education, both in terms of curricula development and practical training delivery. S-PSD has leveraged significant company investment in providing facilities and trained mentors, financing teachers, health and safety trainings and safety clothing for students, complementing the efforts from the public sector.

Underlying this change has been the strong business case for investing more directly in formal education. Companies estimated the cost of 're-training' each new employees at 5,000 EUR over a five month induction period. Although initial investments in this first class of students have been higher by about EUR 500, companies are strongly committed to continue vocational education for youths. Costs are expect to normalise over time and discussion on cost-sharing mechanisms that support the private sector's training role are ongoing.

### *A new working relationship between schools and private business*

Beyond immediate collaboration on curricula development, the working relationship between technical schools and companies on training delivery has intensified. This has included establishing necessary legal and organisational procedures, health and safety guidelines, and more and better information on profiles and career opportunities to pupils and parents. The model has required strong links between on-site and school trainers on student progress and grading. Furthermore, discussions are ongoing around bursary options linked to employment contracts after the course.

### *Employability-based decision making*

With more and better information on the career opportunities offered by new and existing profiles in the wood and furniture sector, student and parent decision-making is increasingly informed by consideration of employment prospects. Demand for new profiles is expected to increase which will reflect in higher enrolment rates. In the first academic year (2016/17) of the new profile being adopted by both Uzice and Subotica schools, 51 (7 girls) students have been enrolled. For 2017/18, another 58 students (incl. 11 girls) have enrolled in two different technical schools.



Student performance has been strong so far and companies are impressed with learning outcomes. The average of grades for enrolled students after year one has been within the school average and above “pass”. In comparison, the practical grades were the highest among all courses with an average 4.4 out of 5, indicating that students not only learn better but are also more motivated. Equally, students and parents have both been very satisfied with the course after the first semester; drop-out rates are extremely low. Whilst the first cohort has yet to graduate, both appear optimistic about students finding employment in 2019. In 2017, eighteen students signed employment contracts with companies post-graduation.

« I have already convinced some of my friends  
to enrol for the course next year! »

Student for Furniture Design Operator  
at Technical School in Uzice

## Engineering wider market response

As a market systems development programme, S-PSD’s vision was always more ambitious than simple up-take of a new curriculum (i.e. its adoption, adaptation and expansion). The goal was to see embedded a more private sector responsive vocational education reform process across Serbia and across its key vocational sectors that give the private sector a role and responsibilities in vocational education.

### Identifying a “broker” agent for public-private collaboration

Having proven the value of a public private collaboration in the form of a working group, S-PSD sought to advocate for formal establishment of Sector Boards to assume the function of the working group. The challenge was to identify an appropriate market player with the necessary capacity and incentive to provide this ‘broker’ role between the private and public sector players.

*S-PSD and the innovative private sector responsive vocational education model gained publicity in 2015 within key public players as well as through the media. Alongside dual education models this model gained a reputation as being the “Serbian good practice model” of dual education.*

With support from SDC, S-PSD engaged with the Chamber of Commerce and Industry (CoCI) on national and local level to take on such a ‘broker’ role. Initial interest was limited due to conflicting approaches in their other activities in dual education<sup>14</sup>. Nevertheless, the growing profile of S-PSD’s work has strengthened support and

engagement from CoCI. In June 2016, SDC, CoCI and S-PSD signed a MoU to collaborate on strengthening cooperation between the private and public sector on education, and promote good practices.

Mandated by the MoESTD in autumn 2016, the emerging role for CoCI will include assessing the needs of the economy for existing and new occupations, keeping a register of accredited jobs, capacity building and advocacy, accreditation of mentors and supervising contracts between companies and students (CorD Magazine, 2017).

### Other dynamics accelerating change

The momentum behind curricula reform received further impetus with the appointment of a new Minister for Education in summer 2016<sup>15</sup>. The MoESTD established a working group to develop a new

<sup>14</sup> The CoCI has been working with the Serbian, German and Austrian government partners on various dual education models.

<sup>15</sup> The new Minister of Education is pro-private sector having formerly been involved in a private primary school.



law on vocational and dual education<sup>16</sup> which will fortify the legal framework for the cooperation between the education sector, the private sector and students. This working group consists of the MoESTD, the CoCI as voice of the private sector, and also includes the Uzice technical school Director. The draft law has been published for public consultation. Other legal and procedural ramifications are equally planned by the MoESTD.

### Results - Impact at scale: More schools, more students

Approval of the new profile and curricula for Furniture Design Operator by the MoESTD paved the way for technical schools across the country to offer the new course but, perhaps more significantly, has also ignited debate amongst stakeholders in other vocational sectors.

#### EXPAND

*If we exited now, would outcomes depend on too few people, firms, or organisations?*

#### *More technical schools with the new wood sector profile*

After the Ministry's publication of the new profile of Furniture Design Operator, the Polytechnic School in Subotica switched from the old wood sector profiles to the new one. The technical school Director from Uzice supported the Subotica Director with information and documents from the working group. Subotica enrolled 25 students (6 girls) in 2016, and drop-out rates are very low. In 2017, the new curricula gained more popularity among students and parents following promotional activities, as enrolment shifted from the older carpentry course. The Furniture Design Operator course, with 30 students, became fully booked for its second year of running.

#### *More profiles and variants*

Wood and furniture companies piloting the new profile are already showing interest in further reforms, new occupational profiles and, in particular, shorter course timeframes.

Since November 2016, the MoESTD has also supported the Uzice technical school Director to promote private sector-responsive vocational education. A promotional campaign has been funded involving 16 presentations to technical schools and companies from other industries aimed at supporting replication in other sectors.

Twenty companies from the textiles industry and three companies from the metal industry have expressed strong interest in collaborating on curricula reform. The MoESTD, with the support of CoCI, has begun negotiations with private sector players in the metal, logistics, automotive and renewable energy sector. Four new curricula have been developed:

- Technician for logistic and freight;
- Motor vehicle mechanic;
- Operator for metal processing<sup>17</sup>; and
- Electrician for renewable energy sources.

#### *Uptake by the Chamber of Commerce as broker agent*

The CoCI's increased interest and existing partnerships gave rise to their formal engagement in vocational education as a linking role between the public and private sector. Since autumn 2016, the CoCI has been appointed by the MoESTD as the agency responsible for involving the private sector in vocational education. The CoCI has started discussions on curriculum revision and on-site trainings with companies from various sectors and has established an upholstery sector board within the

<sup>16</sup> This law is required as part of EU accession requirements.

<sup>17</sup> This curricula has been developed in a working group with Uzice technical school and the private sector, through the same process as described in this case study. The curriculum reform and implementation took one year. Thirty students are enrolled for the first class in 2017 and another technical school in Bor has adapted the new course too.

Association of Forestry, Wood Processing, Furniture Industry and Paper, mandated to continue innovating around vocational education in the wood industry.

### Results – Sustaining and reinforcing change

The reform model piloted by S-PSD and its partners in Uzice has helped trigger a process of national dialogue on how vocational education is developed and delivered.

#### *A Serbian model for ‘dual’ education*

The work of S-PSD and its partners was showcased at an international conference on vocational education systems and experience in June 2016<sup>18</sup>. The event, attended by the Serbian Prime Minister and the President of CoCI, enabled S-PSD to put private-sector responsive vocational education at the top of the agenda in Serbia. Following the conference, the Prime Minister announced reforms in VET as part of the Serbian Government Programme thanks to the support of the Swiss, German and Austrian government agencies. This commitment triggered an engagement of the Swiss VET expert, Dr. Ursula Renold, who has advocated that the model applied in the wood and furniture sector become Serbia’s prevailing VET model.

#### *Commitment to private sector involvement*

The MoESTD’s draft new law on vocational education establishes clear and more active roles for the private sector and is expected to formalise the modalities and processes for interaction between the public and private sector. The model from S-PSD features as a lead model for private sector collaboration.

#### RESPOND

*If we exited now, would the system continue to be supportive of the changes?*

« The Veeda model suits best to

Serbia’s social and economic context »

Gabrijela Grujic, Advisor to the Minister for Dual Education

## Monitoring and supporting system change – future priorities

### Market resilience – different partners, different needs

The success of the S-PSD pilot has stimulated a much needed change in thinking about private sector involvement in vocational education reform and delivery in Serbia. The process of system change remains ongoing as legitimate players and partners across Serbia seek to institutionalise changes and the relationships those changes entail.

S-PSD remains cognisant that sustaining and deepening behavioural change in the wider system can be expected to require additional, and different, support. This is particularly the case in terms of building the capacity of key stakeholders to respond to and reinforce the reform process.

#### *Participatory sector boards driving the revision of vocational education*

The process of convening regular and more collaborative dialogue and action on vocational education, particularly curricula review and private sector participation in skills provision, has become embodied in the concept of a ‘Sector Board’ in the pilot. This multi-stakeholder representation has had the *de facto* legitimacy to hold all players, public and private alike, to account. As a more collaborative reform process becomes the norm, it is expected that the key point of

<sup>18</sup> International Congress on Vocational and Professional Education and Training – “From Skills to Prosperity – Sharing Elements of Success”. Winterthur, Switzerland, 20-22 June 2016

cooperation – the sector boards – become not just a part of the process but, ultimately, the drivers of that process.

The effectiveness of these boards depends, among other things, on their management and administrative capacity to be functional, their ability to establish credibility and the regulatory framework granting official approbation for public-private collaboration. The precise form they take remains open and, indeed, may benefit from a degree of flexibility informed by some core principles (i.e. consensus building on participation, roles and responsibilities; a culture of equality and openness; accountability etc.). The concept of sector boards remains new and formative and might be expected to benefit from further support and development as experience deepens.

#### *Capacity to mobilise private sector businesses*

Active involvement of multiple private sector partners in the process has been instrumental to its success, based initially upon the brokerage role of S-PSD. Whilst sharing a mutual agenda to improve vocational training, these companies are nonetheless often direct competitors, not natural collaborators. The role of brokerage and collective voice within the private sector is critical. National and local CoCI partners offer an obvious source of private sector mobilisation and have shown incentive to do so, albeit with varying capacity and credibility. A more pro-active role in initiating dialogue represents a departure, particularly for local Chambers, and requires development of robust linkages and trust with private sector businesses.

#### *Capacity to delivery collaborative vocational training products*

Both technical schools and participating private companies face new challenges and capacity needs to deliver more practical, high quality training courses such as that piloted by S-PSD. For schools, this implies adapting systems and pedagogy, reviewing training portfolios and marketing, the skills needs of teaching personnel, and their institutional capacity to manage private sector partnerships. Schools can be expected to need both technical and financial support from partners including MoESTD and the Association of Technical Schools to make this transition.

#### Measuring outcomes for the target group

For S-PSD, the task now is one of monitoring and verifying that employment and income benefits unfold for the better trained young Serbians and, where necessary, supporting those market players upon whom sustaining these benefits for future generations will depend. The time and resource investment to date from a variety of market players is testament to their confidence in the value of the model piloted. However, continued willingness to invest and the growth in demand from young



people depends on demonstrating the benefits for

all parties concerned.

The first cohort of students are expected to graduate in 2019. Whilst its pilot activities began in 2014, S-PSD's measurement challenge will only begin in the second half of 2019. It will be crucial to have a

rigorous measurement framework in-place that will be critical to sustaining the momentum for engagement gained to-date and which will provide answers to some vital questions for key market players, such as:

#### **Students**

- ❖ Are new skills more employable?
- ❖ Are salary expectations being met?
- ❖ Has job security improved?
- ❖ Is there future demand for skilled labour in this sector?

#### **Employers**

- ❖ Are new recruits better, more relevantly skilled contributing to increased productivity?
- ❖ Have overall training costs reduced?
- ❖ Can sufficient adequately skilled graduates be recruited?
- ❖ Are companies continuing to be genuinely involved in a public-private dialogue?

#### **Training providers**

- ❖ Are curricula and profile reforms attracting more students?
- ❖ Are students and parents supportive of new curricula?
- ❖ Are the courses effective and cost efficient?

#### **Government**

- ❖ Have changes in government services and enabling environment being seen as positive and by whom?
- ❖ Is youth unemployment decreasing?
- ❖ Are expenses allocated effectively to reap the most benefit for students?

## **Lessons learned – achieving sustainable impact at scale in vocational education reform**

### **Empowering market players to take ownership of reform**

In 2014, the wood processing sector was characterised by limited collaboration among industry players and companies' lack of trust in the public sector to help solve sector issues. This was manifested in the paucity of appropriately skilled labour entering the sector. Despite a long history of programming and investment – invariably technically and pedagogically driven – aimed at strengthening the quality and relevance of vocational training in Serbia, little progress had been made to secure genuine leadership from those with most to gain – the private sector and vocational schools.

S-PSD's point of departure from previous vocational reform initiatives proved to be the root of success. The S-PSD team was not considered specialist in vocational education, yet was able to identify and overcome capacity and incentive gaps building trust and confidence of sector stakeholders and aligning their incentives.

*Critical to intervention success was empowering a sense and process of local ownership and voice instead of 'importing' a model for vocational education. S-PSD invested significant time and effort in building a common understanding and vision amongst local market players, identifying and clarifying the mutual interests of companies, schools, students and parents as the basis for collective action. Understanding respective interests and agendas as part of a rigorous market analysis was the foundation of a shared but realistic vision for curricula reform.*

S-PSD placed particular store in building confidence amongst all parties in the need to nurture and support *private sector leadership of the reform process*. The role of private companies limited previously to one of consultation, offered little in the way of genuine influence or buy-in on the part of the private sector. Not surprisingly, the outcome of earlier attempts at vocational reform rarely reflected the real skills need of employers. In providing the private sector with genuine power over the reform process, S-PSD's approach has led to a more relevant process and leveraged significant private sector investment in it.

### The importance of facilitation tactics

The analytical rigour as well as objectivity underpinning S-PSD's approach took it away from the 'symptoms' of technical flaws in curricula and pedagogy, to the 'root cause' of those problems manifested in poor coordination, trust and information flows between key stakeholders. What S-PSD quickly realised, and others had missed, was that the solution lay not so much in new models and practices for vocational education, but in different 'rules of engagement' between those involved.

The S-PSD team used a range of 'soft' tactics to great effect in stimulating genuine behaviour change and empowering partners to perform better and more inclusively. The tactics employed ranged from the simple – listening to and understanding individual perspectives and interests around vocational education – to the more nuanced and sophisticated tactics of influence and diplomacy required to bring diverse players together, move them beyond historic mistrust, and encourage risk taking over curricula innovations.

Ultimately, it was through the use of these softer skills and tactics that S-PSD succeeded in leveraging the expertise and drive of its market partners. S-PSD actively avoided the temptation of taking the lead itself, whether in meetings or in the form of technical support, and so avoided becoming integral to the curriculum revision process.

Though subtle, S-PSD's role was nevertheless instrumental. S-PSD provided an *objective and impartial brokerage* role bringing competing businesses together to combat a common constraint and *persuading* them to invest in and drive curricula reform. Importantly, S-PSD built evidence that *demonstrated* the potential value to different interest groups of strengthening vocational skills training.

As the intervention evolved, S-PSD focused on *building trust* amongst private sector players in the technical school, *linking* both parties and their respective agendas, and *advocating* for more collaborative action. Where necessary, S-PSD *convened* a number of key meetings and dialogue at local and national levels and used multiple strategies to *convince* key decision makers in the MoESTD of the value of the reform process piloted. Amongst other tactics, S-PSD successfully *leveraged* the political capital and networks of its donor, SDC, in order to access and influence key national decision makers.

Last but not least, S-PSD was able to overcome challenges in advocating the new private sector led curriculum development process thanks to its trustworthy relationship with SDC. The funder supported the programme to find the right tactic to penetrate the public system and processes by using its political knowledge and professional network.



### Market systems change – a multifaceted, long-term commitment

S-PSD's experience of intervening in the formal vocational education system highlights the importance of pro-active engagement beyond pilot activity and proving, successfully, the validity of the innovation introduced. Had S-PSD stopped at the formal approval of the *Furniture Design Operator* profile there is much to suggest little more would have been achieved. A single new profile in one of many important employment sectors would in all likelihood not have impacted beyond that sector not benefited more than a few hundred young people.

S-PSD's experience highlights the importance of initiating wider uptake in the market system by identifying and supporting the critical processes of wider outreach and reinforcement of innovation and reform. S-PSD's focus has been and should continue to target responses beyond its pilot partners if these changes are to be sustained. In order that a more private sector-led reform process, enshrined by multi-stakeholder sector boards, impacts beyond a single vocational profile requires S-PSD to target new partners like MoESTD and CoCI, and target explicitly their constraints in terms of scaling up and rolling out the reform model.

For S-PSD this remains a work-in-progress. Wider issues and new capacity challenges to fully embedding private sector-responsive vocational education reform have, as would be expected, emerged and need to be addressed. Institutionalisation of change invariably requires interventions beyond initial testing and proof of concept and this necessarily requires programmes with the requisite flexibility, resources and timeframe – including donor commitment – to respond.

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## Appendix 1: Key constraints in the wood and furniture sector

MARKET CHALLENGES		UNDERLYING REASON FOR CHALLENGE		IMPACT
Standards	Compliance with quality standards due to different and increasing regulatory requirements imposed by buyers	Slow or no information flow to manufacturers; Slow adapting production due to <b>un(der)skilled workers</b> and low investments	<b>Quality standards and production deadlines putting pressure on MSMEs:</b> Since the market liberalisation competition to find buyers, especially foreign ones, became fiercer. Buyers expect big volumes on time and to a certain quality. Many of the MSEs have difficulties to compete on this level. Even for medium and large companies the new production requirements are a challenge that require tight production management, highly skilled workers, modern production lines and liquidity.	Higher costs, limitations in entering new/foreign markets, decreases competitiveness
Production	Difficulties with keeping tight production deadlines	Lack in <b>vocational skills</b> , lack in coordination among market players, deficient value chain governance	<b>Skills and human resources trained by vocational and technical schools or private training providers:</b> There are 22 vocational schools educating young people for the wood industry and a few private training providers offer courses for unemployed and workers. Nonetheless, the private sector struggles to find enough people with the right skills-set despite a seemingly adequate training. The National Employment Service is offering trainings to unemployed people but gives little support to the private sector to find appropriately skilled people. Their job matching services are of low value to the private sector.	Penalties, lower competitiveness, loss of clients, loss of revenues
	Unnecessary operational costs	<b>Inadequate skills of workers</b> , inefficient management of production waste, productivity issues, limited raw materials	<b>Perception of the jobs in the industry:</b> People consider jobs in the wood processing industry as very difficult, male-oriented and physically challenging. A growing trend in society continues preferring white-collar jobs and attaching a stigma to blue-collar jobs. Unemployed, youth as well as sector graduates have no realistic view of what wood processing jobs consist of.	Loss of competitiveness, high costs, shrinking competitiveness
R&D	Lack in product design	Lack of trust, lack of knowledge about international design trends, lack of forrunner designers	<b>R&amp;D and product design by cluster organisations, incubators and universities:</b> These organisations work alongside instead of with the private sector. They lack either the financing, necessary standing in the sector, or the understanding of commercialisation and sector capabilities to be fully efficient in their service provision. Many companies produce products that are designed by their foreign clients. Therefore, R&D and local product design seems yet to be little considered by the sector.	Lower internal value addition, lower reputation
Technology	Lack of technological modernisation	Limited FDI, limited available in-country financing, low internal reserve funds, low investment climate, lack of information, <b>lack of workers' skills and knowledge</b>	<b>Technology improvements driven by wood processing companies and their international investors:</b> Wood processing and furniture manufacturing companies became better connected to foreign and local buyers, suppliers and competitors in recent years. This flow of information has driven technology improvements. Despite foreign companies investing into Serbian wood processing companies, finance remains a key issue especially for MSEs.	Lower productivity and competitiveness, slower growth
Linkages	Lack of linkages with international buyers and limited diversification of sales channels	Lack of competitiveness and size, lack of entrepreneurialism, risk-aversion, liquidity issues	<b>Advocacy and information by Chamber of Commerce and Cluster organisations ineffective to industry performance:</b> The Chamber of Commerce and cluster organisations should be the coordinating link among industry players and between the public and private sector. These organisations have been heavily supported by donors and the government, however, their services have shown mostly irrelevant and ineffective to industry players. These coordinating bodies lack reputation and trust from the private sector.	Limited growth, innovation and diversification
Promotion	Lack of promotion on international markets	Lack of finance, lack of information, lack of marketing know-how, lack of intersectorial collaboration	<b>Industry promotion by SIEPA, SIPPO, Chamber of Commerce and others:</b> These organisations organise business expositions and fairs and support companies in participating. They provide matching and export promotion services. These services have been effective to some degree. However, these public organisations have been recently restructured and some were merged into other services.	Low client diversification, production dependency, higher business risk, limited growth
Information	Insufficient market information	Lack of intersectorial collaboration, limited value of CoC and other services		Lack of innovation