



WORLD BANK GROUP

Skills for a Modern Ukraine



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5 main messages

1. Workers need a mix of skills
2. Education lacks relevance for modern standards
3. Institutional inefficiencies hinder skills use and growth
4. Skill gaps limit firms' efficiency and overall productivity
5. Policy options can be organized in 3 pillars
 - Build foundational skills for new labor market entrants
 - Enhance the development of advanced skills for current and new workers
 - Improve the institutional environment to ease the use of skills



Outline

1. Skills needed for a modernizing labor market
2. Institutional challenges for the growth and use of skills
3. Policy options

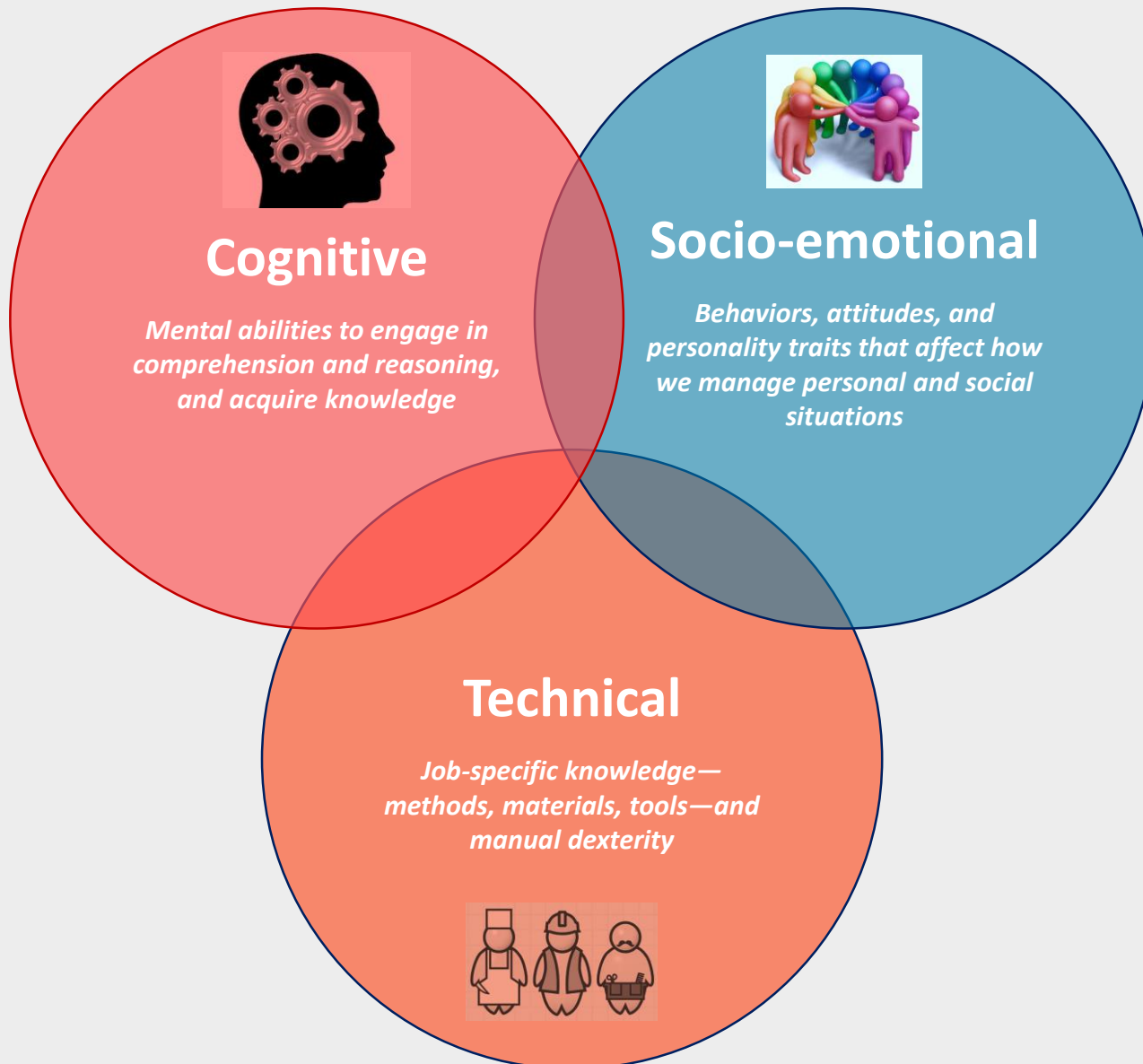




The Skills Needed in Today's Ukraine



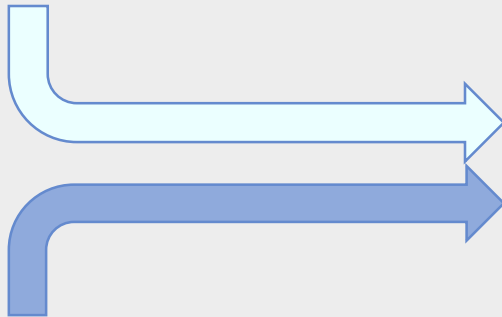
People's skills are multidimensional



The study uses a unique mix of data



Employer Skills Survey (2014)



Household Skills Survey (2012)



Web scraping of a data set of online job vacancies (2015)

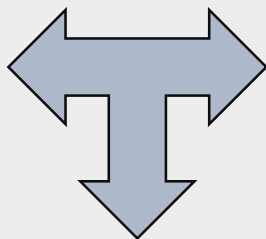


- List of skills associated with better labor market outcomes
- List of skills demanded by employers
- Job requirements by sectors (education, skills, experience)

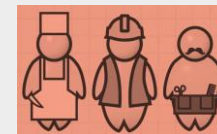


Ukraine's labor market values a combination of skills

Workers are more successful when having better...



Employers look for...



Advanced Cognitive skills

Socio-emotional skills

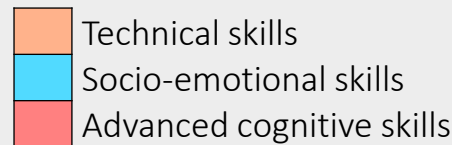
Technical skills

Problem solving	Control <i>(Self-management)</i>	Computing and programming
Communication	Resilience <i>(Stress resistance and perseverance)</i>	Knowledge of markets and laws
Creative and critical thinking	Ethics	Sales skills
Time management	Achievement Motivation <i>(Goal orientation and motivation to learn)</i>	Design
Learning	Teamwork	Driving



Top demanded skills are consistent across sectors...

Ranking of most important skills for new hires by employers of four key sectors



Agribusiness growers

Agribusiness food processors

Renewable energy



Information technology

	Agribusiness growers	Agribusiness food processors	Renewable energy	Information technology
1	Job-specific technical skills	Job-specific technical skills	Job-specific technical skills	Job-specific technical skills
2	Professional behavior	Professional behavior	Problem solving	Problem solving
3	Problem solving	Problem solving	Creative and critical thinking	Professional behavior
4	Ability to work independently	Teamwork	Professional behavior	Ability to work independently
5	Teamwork	Ability to work independently	Teamwork	Teamwork



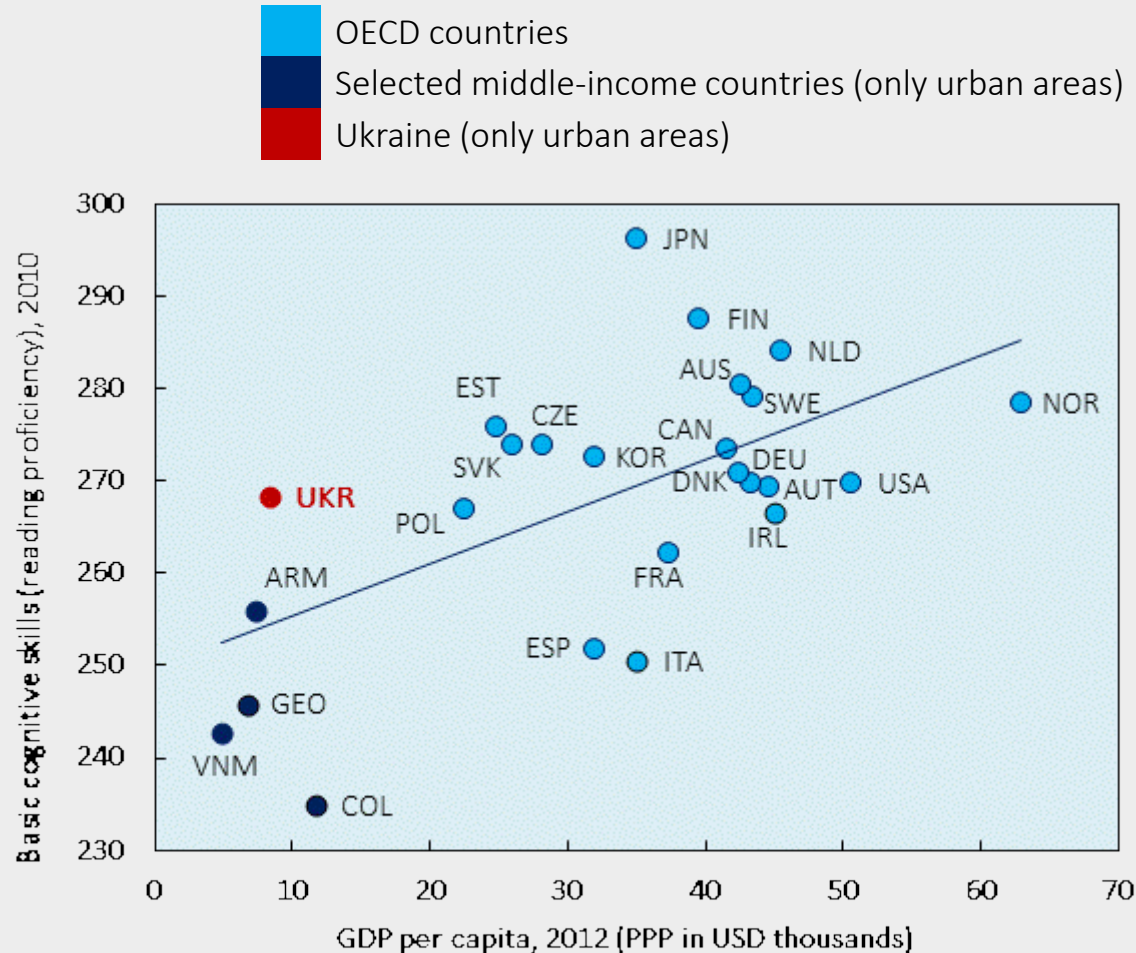
...And types of occupations

Ranking of most important skills for new hires by employers of four key sectors

		Occupation type		
				
Skill set	Skill	High-skilled	Low- and medium-skilled	All
Technical	Job-specific technical skills	Very High	Very High	Very High
	Professional behavior	High	High	High
Socio-emotional	Ability to work independently	Medium	High	High
	Team work	Medium	High	High
	Leadership	Medium	Medium	Medium
	Problem solving	High	High	High
Advanced cognitive	Communication	Medium	Medium	Medium
	Creative and critical thinking	Medium	Medium	Medium
	Time management	Low	Medium	Medium
	Literacy in another foreign language	Low	Low	Low
	Literacy in English	Low	Low	Low
	Numeracy	Medium	Low	Medium
Basic cognitive	Literacy in Ukrainian or Russian	Low	Low	Low

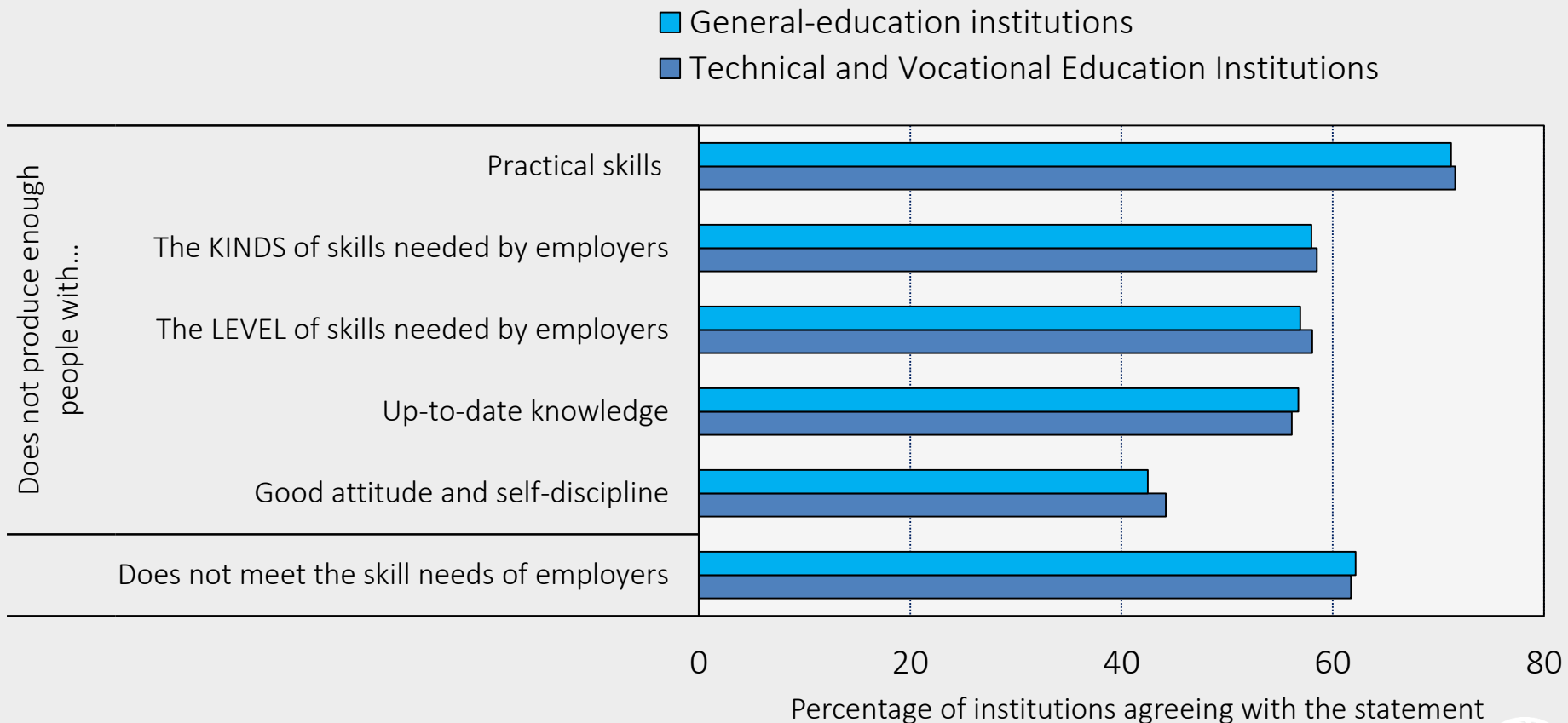


Ukrainian adults have good foundations of basic cognitive skills...



...But the education and training system does not produce the skills in need

Employers' views about skills development in general and technical educations



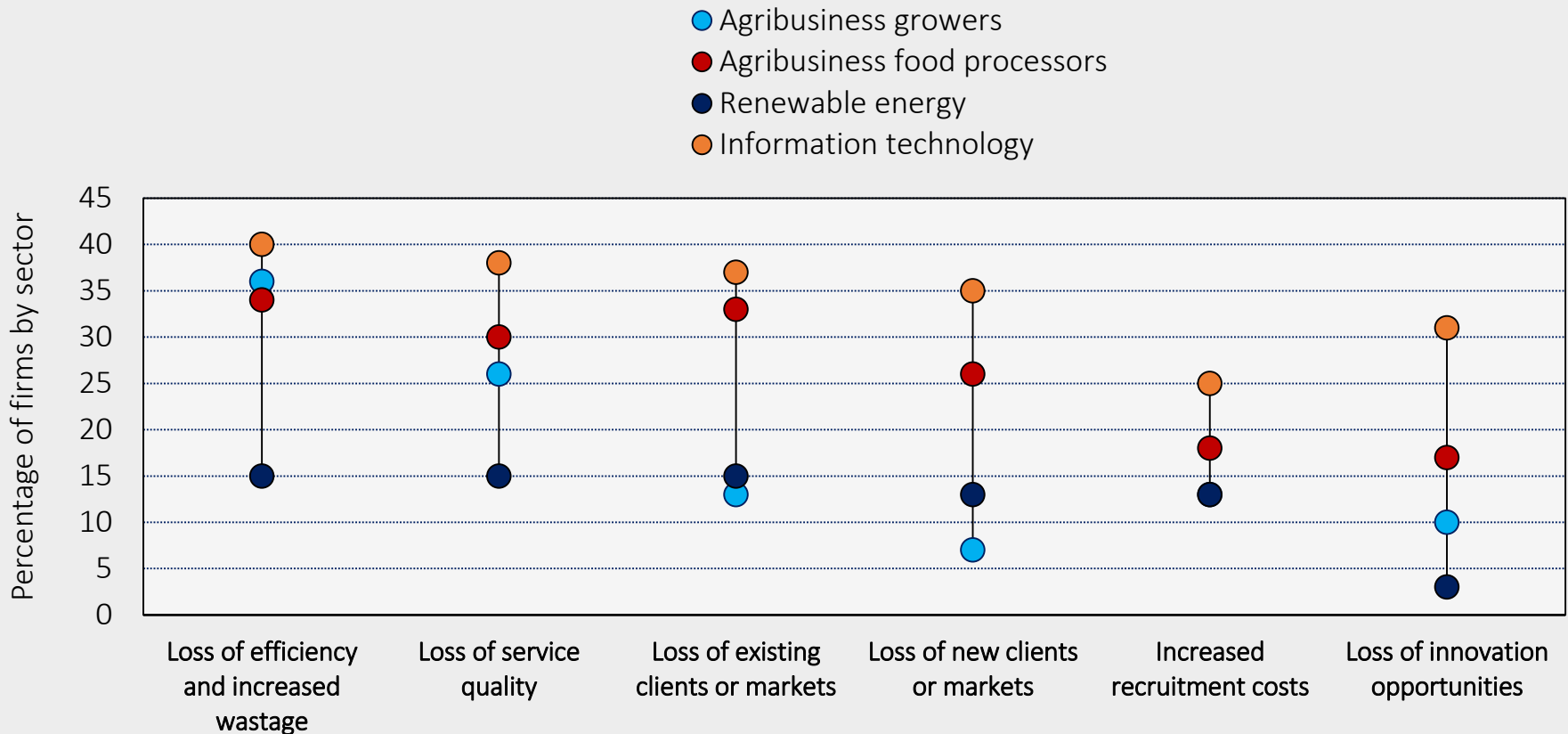
Source: Ukraine STEP Employer Survey (2014).

Note: Note: The 4 sectors surveyed include agribusiness food growers, agribusiness food processors, renewable energy, and ICT.



The lack of skills has harmful effects on business...

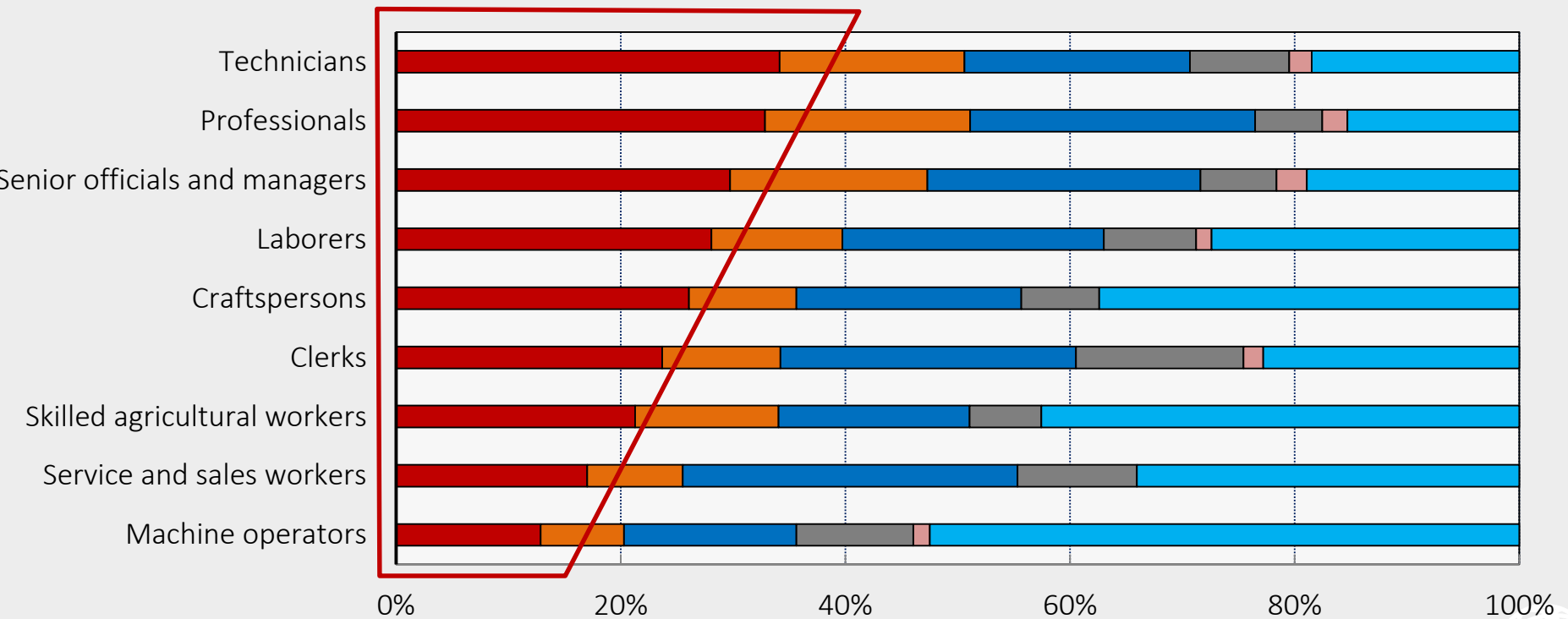
Share of firms reporting that skill gaps caused a given business problem, %



...And on hiring

Compositions of problems encountered by employers when trying to hire staff, by occupation (%) – 4 key sectors

- Applicants lacked required skills
- There were no or few applicants
- Applicants expected wages higher than we can offer
- Applicants did not like working conditions
- Other
- Did not encounter any problems



2

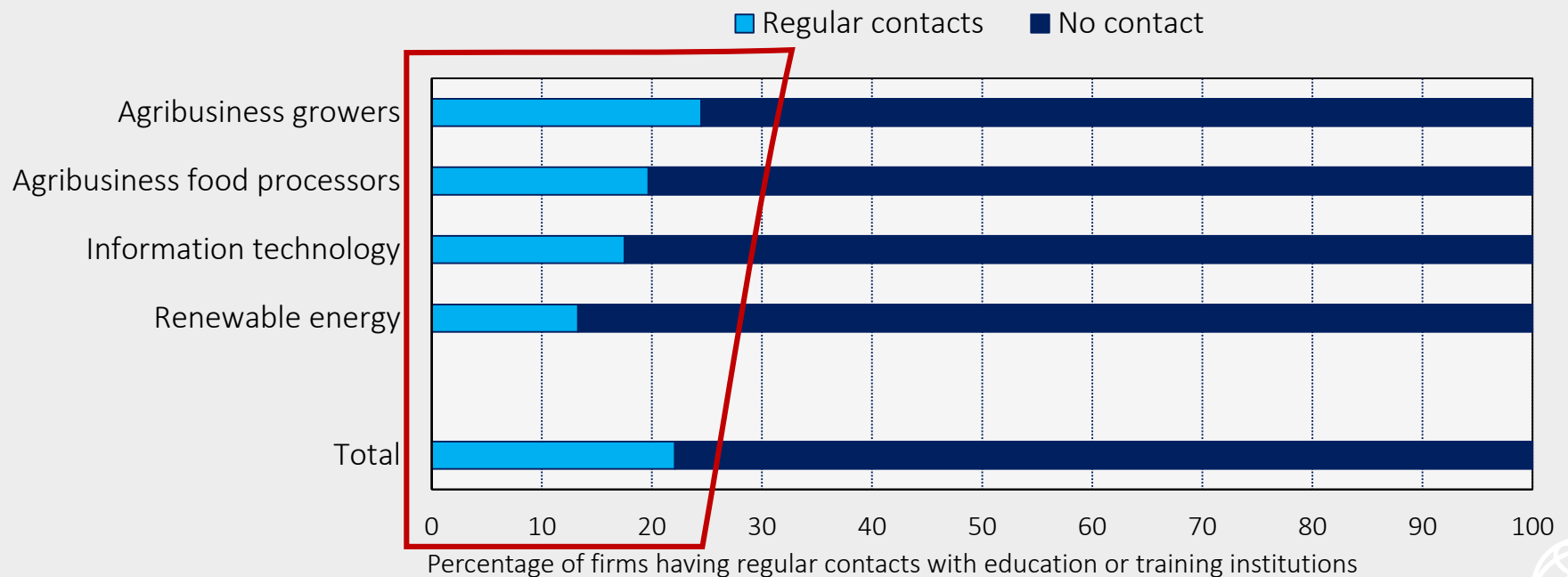
Institutional challenges for the growth and use of skills



Education providers and employers live in parallel universes



Share of Firms with Regular Contacts with Educational and Training Institutions



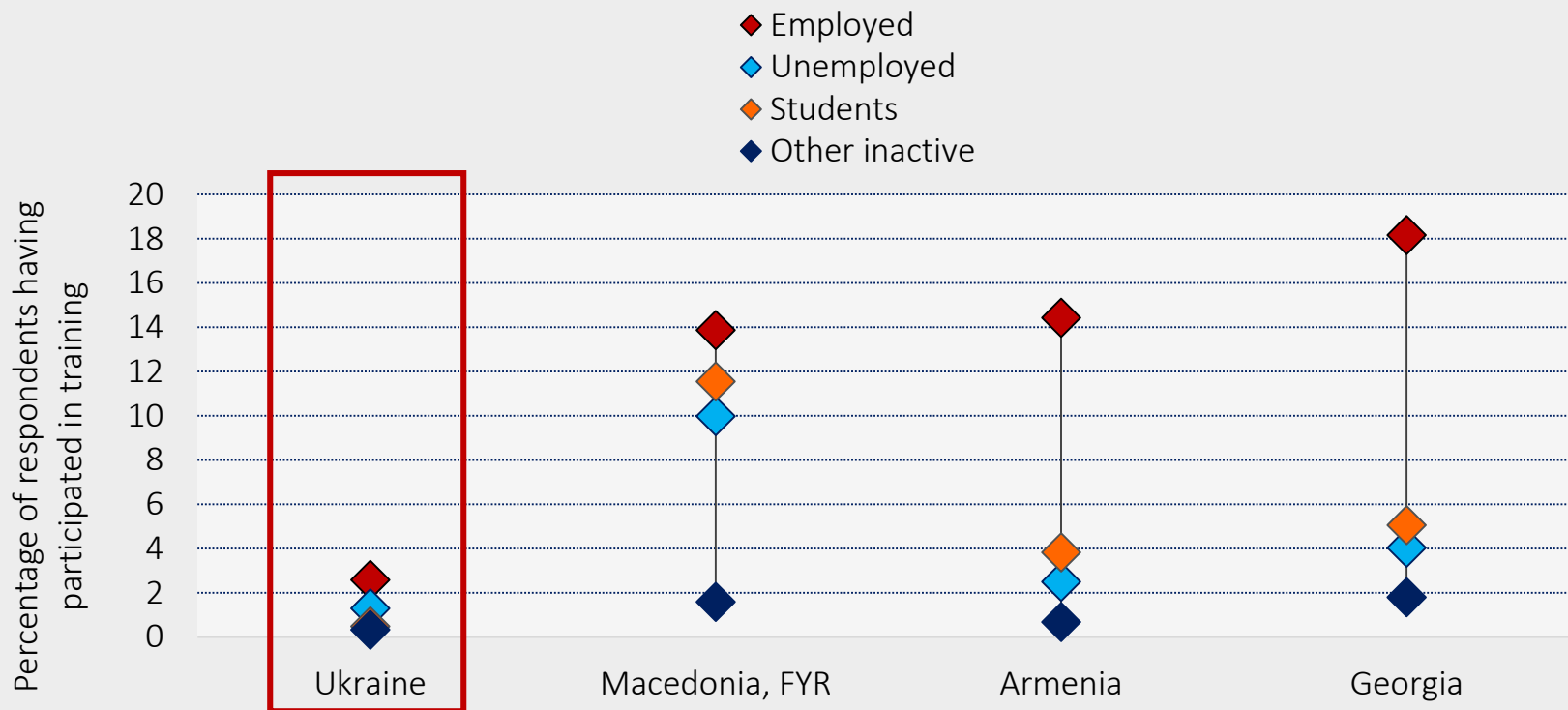
The workforce development system needs a **stronger leadership**, a more **efficient funding** scheme, and should be more **demand-led**

World Bank assessment of the strategic framework of the education and training system



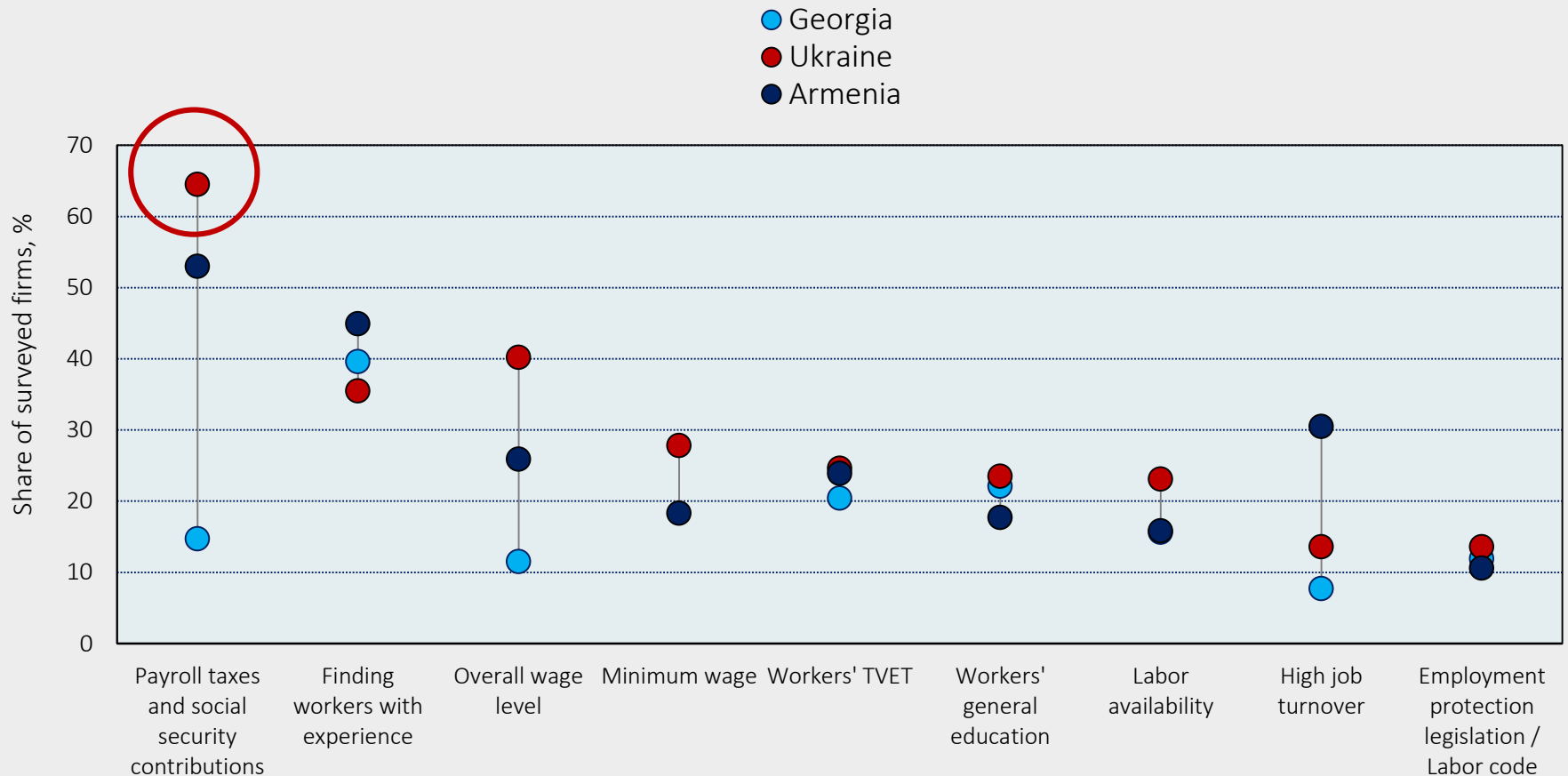
Training beyond formal education is virtually inexistent

Share of urban adults who participated training, by labor force status



Firms see labor taxes as major constraints to their operation and growth

Share of Firms Reporting Labor-related Problems as Major Constraints



Source: Armenia, Ukraine, Georgia STEP Employer Surveys, 2014.



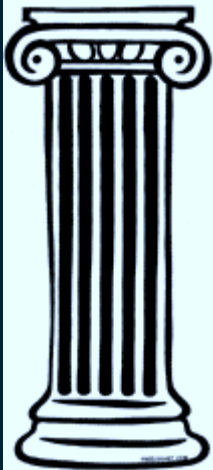
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Policy options



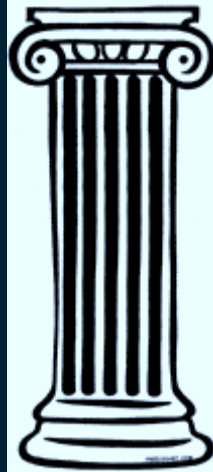
Policy options in 3 pillars

Build foundational skills
for new labor market
entrants



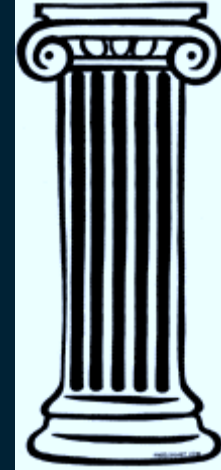
1

Enhance the development
of advanced skills for
current and new workers



2

Improve the institutional
environment to ease the use
of current workforce's skills

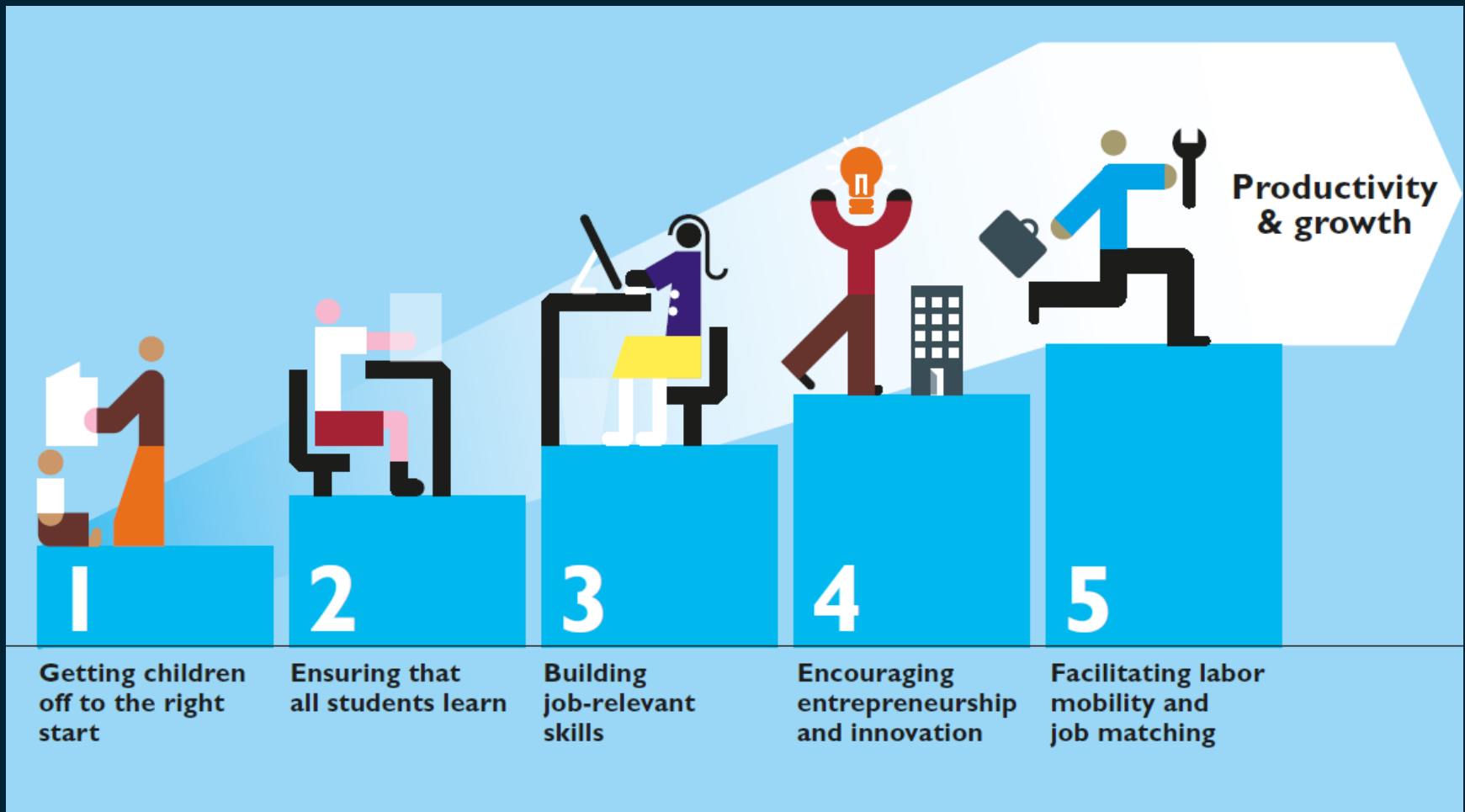


3



Pillar 1—Building foundational skills for new labor market entrants

Envision a lifelong skill development strategy



Pillar 1—Building foundational skills for new labor market entrants

Develop socio-emotional skills in key life periods

Optimal age periods to develop socio-emotional skills

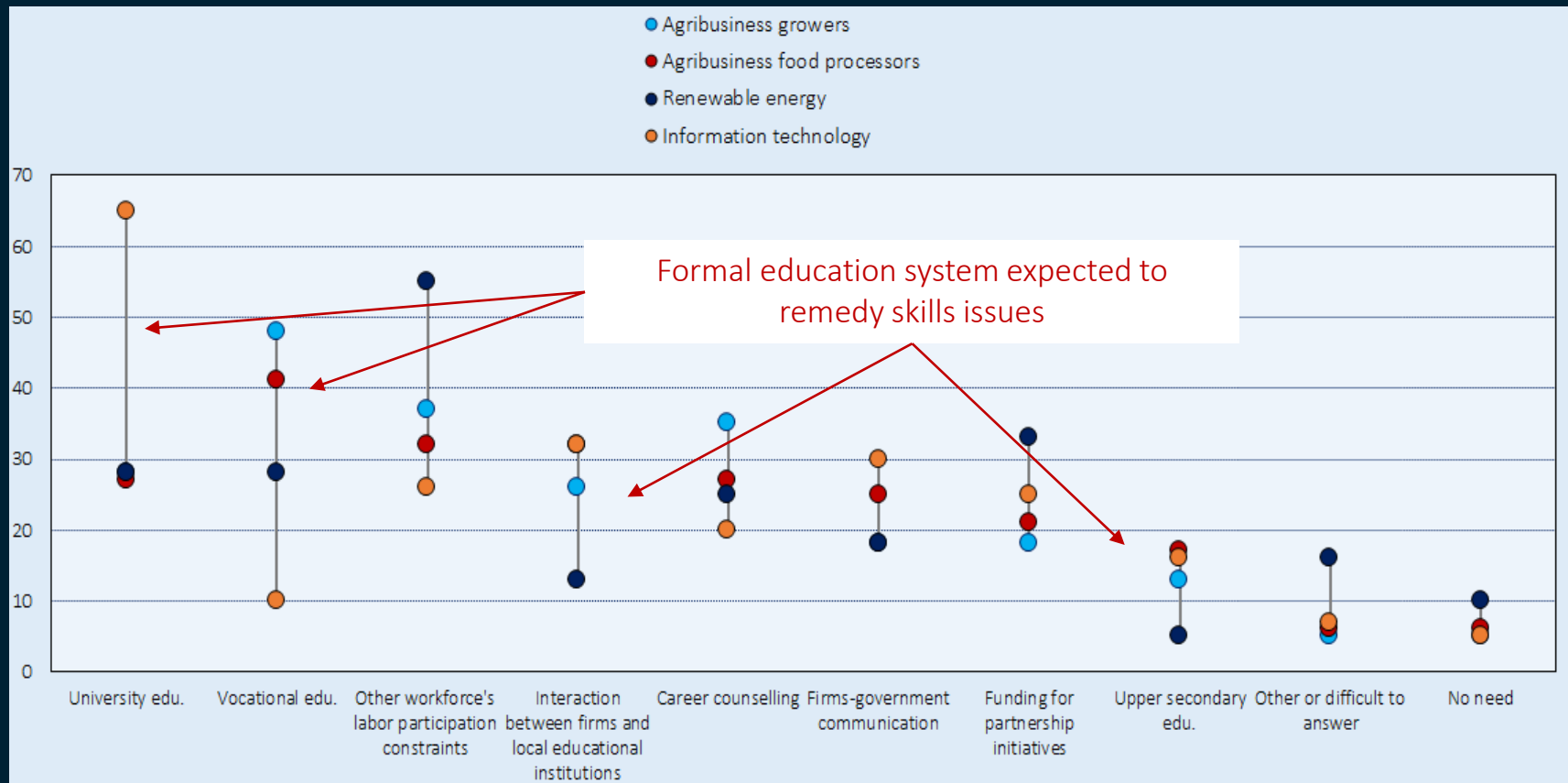
PRACTICE taxonomy of socio-emotional skills	Sub-skills (Skills, Attitudes, Beliefs, Behaviors)	Stage of development by age periods			
		0-5	6-11	12-18	19-29
Problem-solving	Social-information processing skills Decision making Planning skills	Foundational	Optimal		Reinforcement
Resilience	Stress resistance Perseverance Optimism Adaptability	Optimal		Reinforcement	
Achievement motivation	Mastery orientation Sense of purpose Motivation to learn		Optimal	Reinforcement	
Control	Delay of gratification Impulse control Attentional focus Self-management	Optimal			Reinforcement
Teamwork	Empathy/Prosocial Low aggression Communication skills Relationship skills	Optimal		Reinforcement	
Initiative	Agency Internal locus of control Leadership	Optimal			
Confidence	Self-efficacy Self-esteem Positive identity	Foundational	Optimal		Reinforcement
Ethics	Honesty Fairness orientation Moral reasoning	Foundational	Optimal		



Pillar 2—Enhance the development of advanced skills

Government support is expected to improve education quality

Share of surveyed firms considering that substantial government support is needed in certain areas (%)



Pillar 2—Enhance the development of advanced skills

Build stronger leadership and more efficient funding of post-secondary education and training institutions

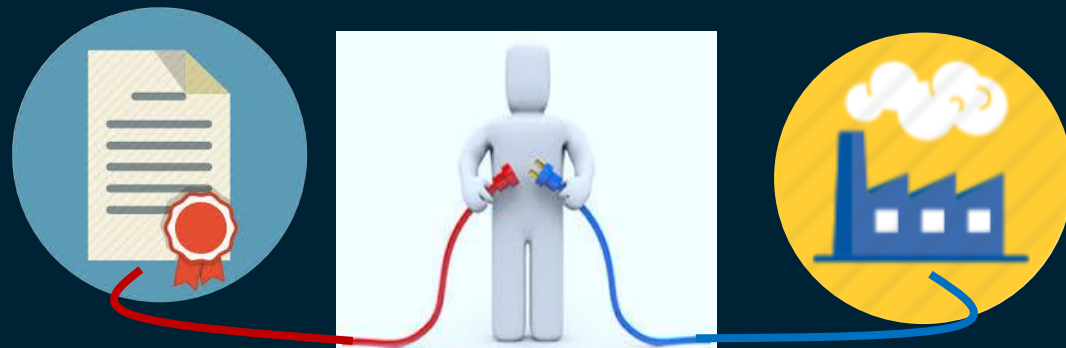


Pillar 2—Enhance the development of advanced skills

Improve education quality and relevance by establishing strong links between firms and education and training providers

Develop adaptive demand-led curricula

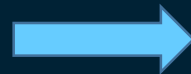
Set-up and maintain occupational standards



Pillar 2—Enhance the development of advanced skills

Introduce financial incentives for firms to promote on-the-job training

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Pillar 2—Enhance the development of advanced skills

Training should focus on skills that are transferable across occupations and industries

Example: Common competencies across technicians, high-skilled non-manual workers
 (mechanical engineering technicians, agricultural technicians, electrical engineer technicians)

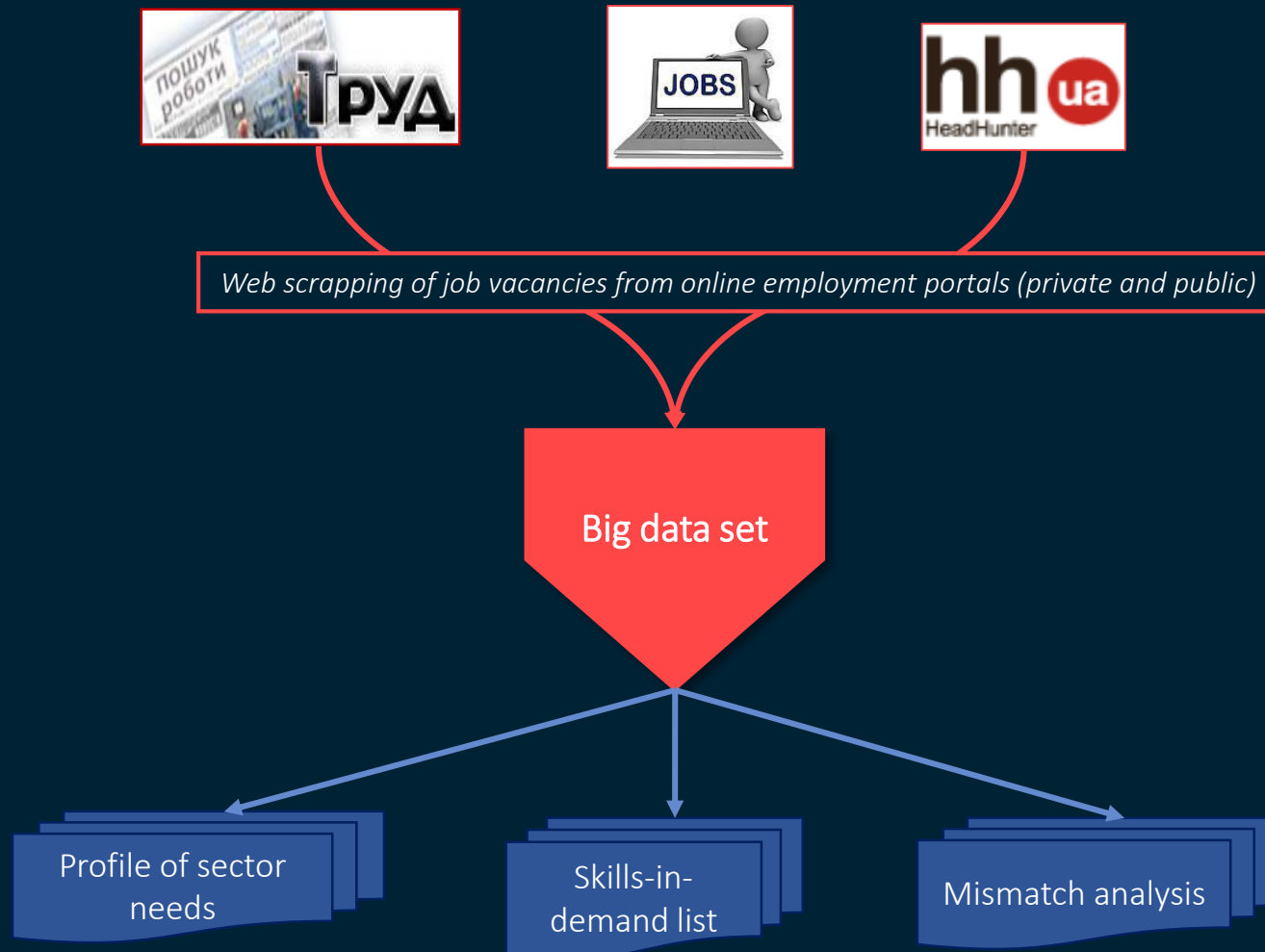
Advanced cognitive skills		Understanding of physics, strong communication and analytical skills, judgment and decision making, and complex problem solving
Socio-emotional skills		Active listening, active learning, customer and personal service, undertaking education and training of others
Technical skills	Design	Knowledge of design techniques, tools and principles involved in production of precision technical plans, blueprints, drawings and models
	Production and processing	Knowledge of raw materials, production processes, quality control, costs and other techniques for maximizing the manufacture and distribution of goods
	Monitoring	Keeping track of how well people and/or groups are doing in order to make improvements



Pillar 2—Enhance the development of advanced skills

Collect systematically job vacancies from all portals to identify the demand for skills and labor

Example of the web scrapping of job vacancies carried out for this study



Pillar 2—Enhance the development of advanced skills

Monitor labor demand to equip students and workers with the right skills

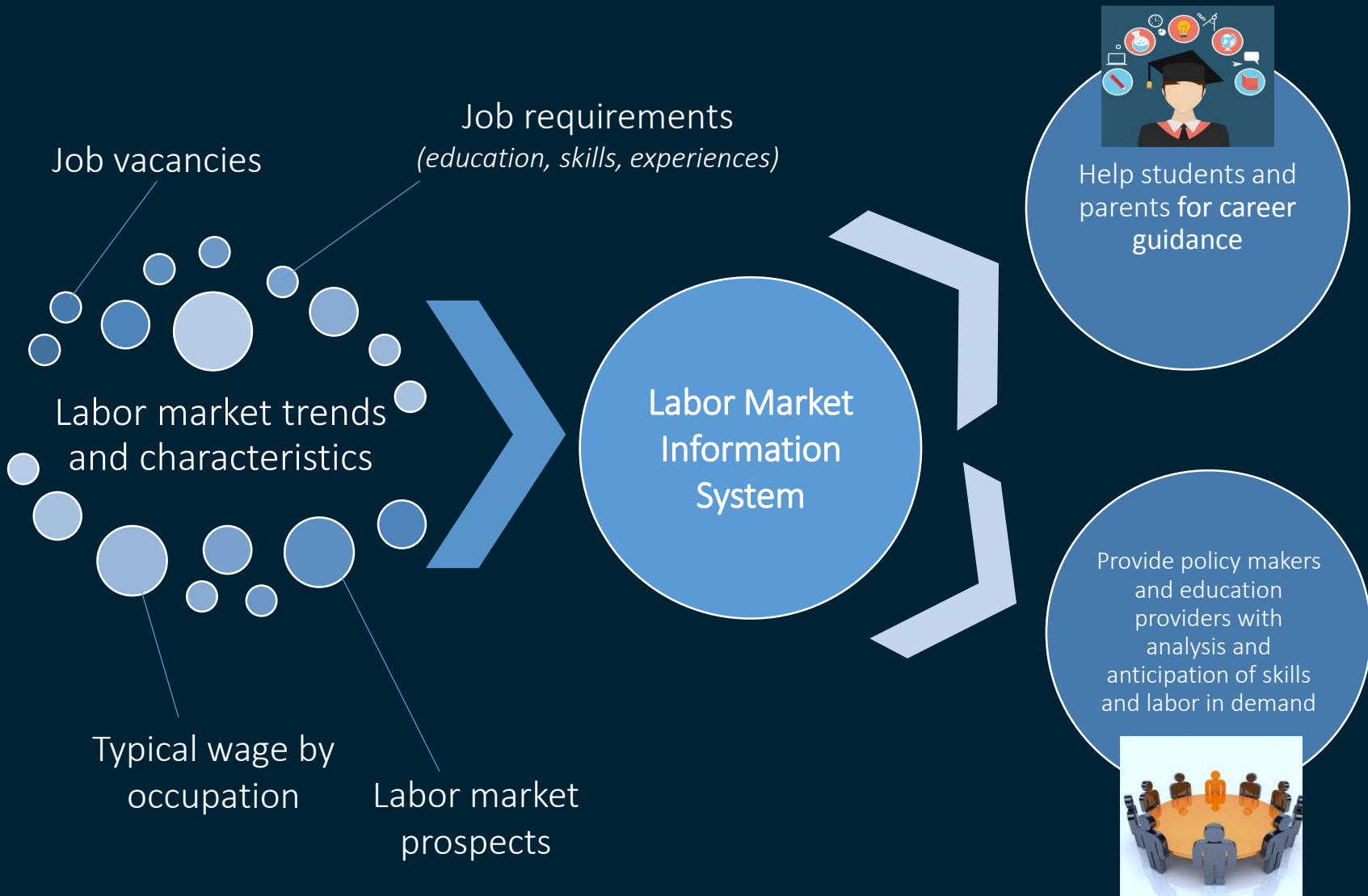
Example: demand and requirements from job vacancies in the manufacturing sector in Ukraine

Sector's demand for occupations	Mostly higher-skilled occupation categories—managers, engineers, technologists, and engineering science technicians
Education and experience requirements	Education requirement is mainly focused on the higher technical level, and the minimum required experience is 2 years
Advanced cognitive skills	Communication and thinking skills
Socio-emotional skills	Responsibility, organization, leadership, proactivity and initiative, perseverance, and attentiveness
Technical skills	Computer skills Advanced computer skills and proficiency in special software for 2- and 3-dimensional modeling and design (e.g. Solidworks, KOMPAS) or for graphic design (e.g. Adobe Photoshop, Adobe Illustrator, CorelDraw)
	Knowledge of technology and production Prepare technological documentation, understand drawings, knowledge of technologies, production process and materials
	Knowledge of laws Knowledge of the regulations on the manufacture of certain products; Knowledge of the legal framework of Ukraine on occupational safety, fire and industrial safety, and construction and installation works



Pillar 2—Enhance the development of advanced skills

Upgrade an information system on the labor market



Pillar 3—Improve the institutional environment

Reduce labor costs and allow contractual diversity while protecting workers rather than jobs



Impact of higher employment protection legislation

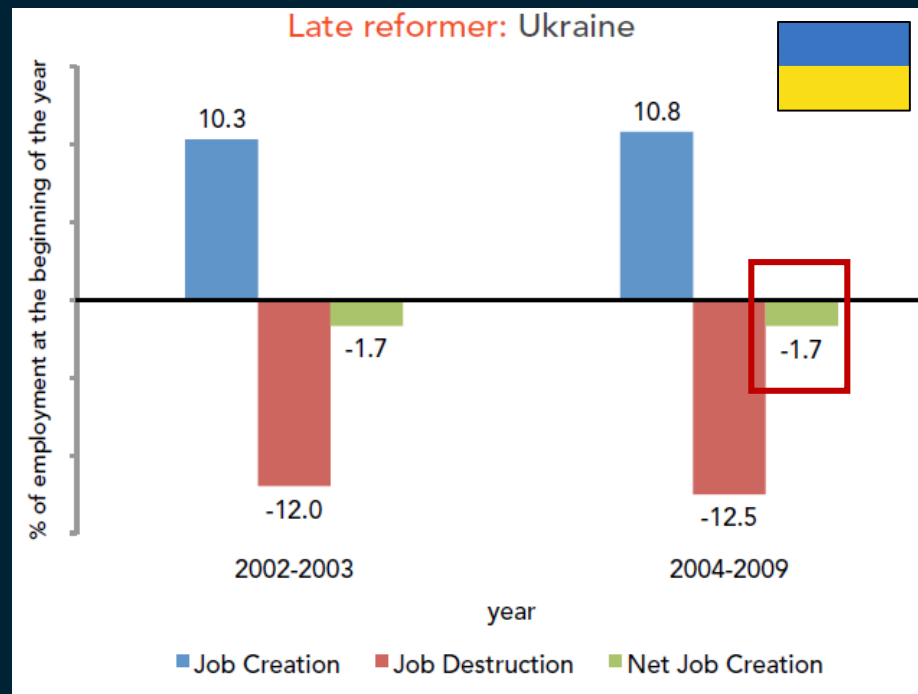
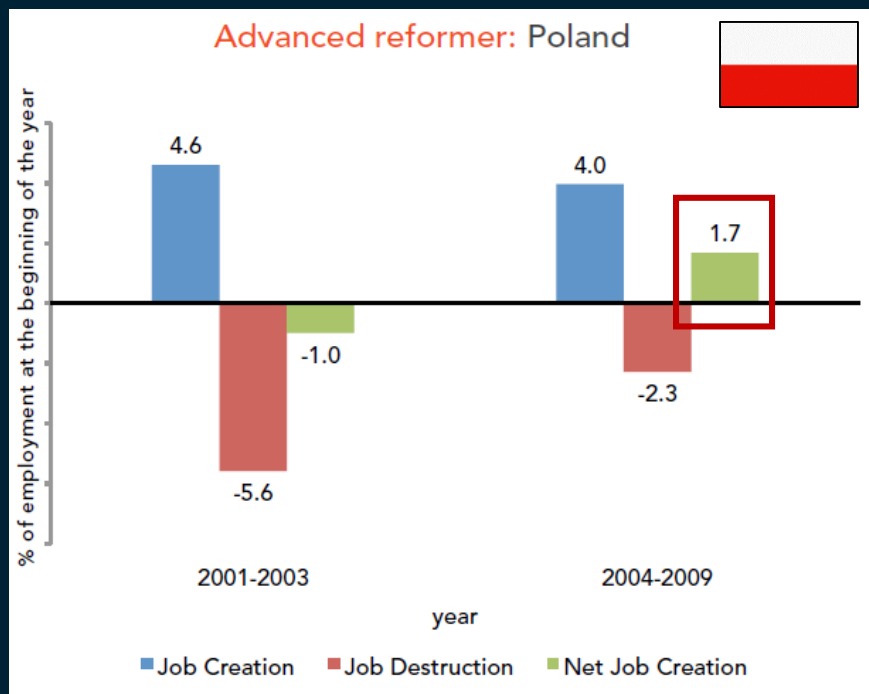
Domain of impact	Average impact in middle- and high-income countries	Impact in countries with overly stringent regulations
Aggregate employment	Modest negative or no impact	Negative
Employment effect on particular groups	Prime-age men and high-skilled workers most likely to benefit; youth and less-skilled most likely to be hurt	
On wages	Reduces wage inequality	Negative
On productivity	Mixed	Negative



Pillar 3—Improve the institutional environment

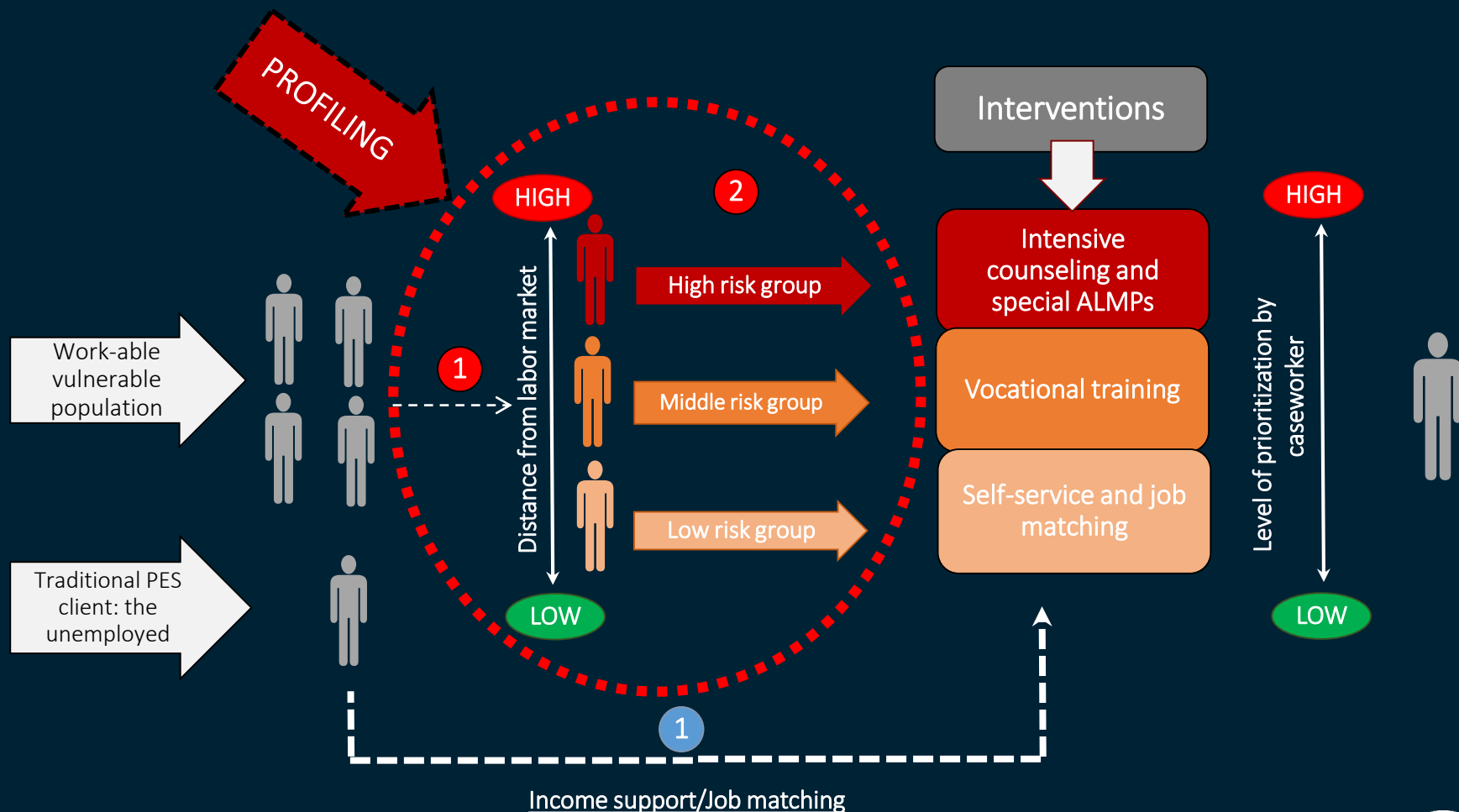
Reduce labor costs and allow contractual diversity while protecting workers rather than jobs – cont'd

Reforms pay off: advanced reformer countries -like Poland- achieve net job creation (left) while job destruction still outpaces job creation in a late reformer like Ukraine (right)



Pillar 3—Improve the institutional environment

Improve labor intermediation by building a statistical profiling tool for the State Employment Service

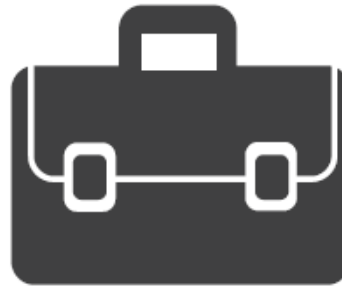


Pillar 3—Improve the institutional environment

Remove the barriers to internal migration



Develop housing and credit markets



Make social benefits portable



Reduce administrative requirements for moving



Improve labor market information systems



Reform regional policies, such as agricultural subsidies






Invest in generic, transferable skills



Improve connectivity and access to basic services



Overview of policy proposals

Policy pillar	Components	Horizon	Policy actors
 1 Build foundational skills	Integrate socio-emotional development in traditional learning	Medium term (6-12 months)	Ministry of Education and Science Ministry of Social Policy State Employment Service
	Develop a lifelong skill development strategy	Long term (over 12 months)	
 2 Enhance the development of advanced skills	Build and upgrade qualification and occupation standards	Short Term (3 months)	Ministry of Education and Science Ministry of Eco. Dev. and Trade Ministry of Social Policy State Employment Service Ministry of Finance Employers' associations Trade unions
	Introduce financial incentives for firms to promote training		
	Set up a labor market information system		
	Build stronger tertiary-education leadership structure	Medium term (6-12 months)	
	Introduce result-based funding of post-secondary education and training institutions		
 3 Improve the institutional environment	Reform the labor code—labor costs, contracts, worker protection	Short Term (3 months)	
	Build a statistical profiling tool for employment services	Medium term (6-12 months)	
	Remove the barriers to internal migration	Long term (over 12 months)	



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Thanks

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