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The future is today: megatrends reshaping the labor market globally

<table>
<thead>
<tr>
<th>Change driver</th>
<th>Megatrends</th>
<th>Selected examples</th>
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</thead>
<tbody>
<tr>
<td><strong>Shifts in Technology and Digital Productivity</strong></td>
<td>Automation and Technological Innovation, Big Data and Advanced Analytics</td>
<td>1/3 of work automated by 2035 with 3/4 of jobs substantially impacted</td>
</tr>
<tr>
<td><strong>Shifts in Resource Distribution</strong></td>
<td>New Demographic Mix, Shifting Geopolitical and Economic Power, Megacities and Agglomerations</td>
<td>Multigenerational workforce with over 25% of Generation Z by 2025, Another 2.5 billion people will move to cities by 2050</td>
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<tr>
<td><strong>Shifts in Workforce Values and Culture</strong></td>
<td>Diversity and Inclusion, Entrepreneurship and Well-Being, Green economy, Inequality → Nationalism vs Global Mindset</td>
<td>Workforce mobility doubled in the last 20 years, 5-45% of workers already involved in gig platforms, Green economy will lead to job losses of around 6 million as well as the creation of some 24 million jobs by 2030</td>
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</table>

The majority of trends are already shaping the labor market. The key question is about the speed and depth of the changes.

New circumstances on the labor market are changing the development and distribution of human capital.

Source: Analysis of BCG research, media and publications
Over 1.3 billion people in the world are employed in jobs they are under- or overqualified for

**Skills deficit**
Lack of candidates with required skillset to fill specific vacancies

**Skills redundancy**
Jobs disappear, skills are no longer in demand

Sources: Korn Ferry, 2018; OECD, 2016; ILO, 2018; IMF, 2018; BCD analysis.
In OECD countries\(^1\) skills mismatch affects 2 out of 5 employees.

**Labor force affected:**
- 87.6 mln
- 58.6 mln
- 33.9 mln
- 102.4 mln
- 11.3 mln
- 5.9 mln

\(^1\) Analysis covers 41 countries (incl. 35 OECD countries and 7 non-OECD countries (Argentina, Bulgaria, Cyprus, Peru, Romania, Russia, S. Africa)).

Sources: OECD, 2016; ILO, 2016; World Bank, 2016; BCG analysis.
Skills mismatch is a "hidden tax" on labor productivity withholding up to $5T from global GDP annually.

Mean productivity loss due to this mismatch is ~6%...

- North America: ~3%
- Asia and Pacific: 4-6%
- Eastern Europe: 2-9%
- Western Europe: 3-10%

...which withholds $5T from global GDP in 2017.

1. "Talent shortage survey 2018", Manpower Group
3. OECD "Skill mismatch and public policy in OECD countries"
Skills mismatch is a legacy of Industry 2.0 skills formation system – professional standardization and centralization

<table>
<thead>
<tr>
<th>Speed of the technology’s distribution, years¹</th>
<th>Share of middle class globally, %</th>
<th>Evolution of production and consumption</th>
<th>Skills formation system</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of 18th century Use of steam power 50+ furnace</td>
<td>2–3%</td>
<td>Labor productivity growth Urban population growth Consumption of product not manufactured in-house</td>
<td>Education only for the elite, mass skilling on the job for the rest</td>
</tr>
<tr>
<td>Beginning of 20th century Use of electricity 20 electricity</td>
<td>10–15%</td>
<td>Division of labor Mass-scale urbanization Consumption of a standard mass-produced product</td>
<td>Standard professions, standard mass education for all</td>
</tr>
<tr>
<td>1970s Use of electronics 10 color broadcasting</td>
<td>25–30%</td>
<td>Partial automation of production Growth of agglomerations Possibility of individual consumption amidst a standardized set</td>
<td>Growth of specialization, centralized quotas on specialized professions</td>
</tr>
<tr>
<td>Today and in the future Use of cyber-physical systems 3 smartphones</td>
<td>55–60%</td>
<td>Full automation and digitalization of production Formation of mega-cities Creation of customized products and services</td>
<td>Mass-scale customization of education, personal growth</td>
</tr>
</tbody>
</table>

1. Number of years from launch to mass distribution to 60% of households 2. Specific occupational categories, IPUMS
Source: Michael Felton, NYT; The Economist, Surjit Bhalla, The middle class kingdoms of India and China; IPUMS

The skills formation system lags behind the needs of the economy and society
Each cluster has its unique strategy of development of talents and closure of skills mismatch.

<table>
<thead>
<tr>
<th>Description</th>
<th>Examples of countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambitious and open</td>
<td>UK, USA, Finland, Japan, China, Austria, France, Germany, Russia</td>
</tr>
<tr>
<td>Closed and self-sufficient</td>
<td>Russia, Mexico, India, Saudi Arabia, Venezuela</td>
</tr>
<tr>
<td>Developed and stable</td>
<td>China, Germany, UK, Austria, France</td>
</tr>
<tr>
<td>Talent exporters</td>
<td>Austria, France, Germany, Russia, Mexico</td>
</tr>
<tr>
<td>Labor force exporters</td>
<td>Russia, Mexico, India, Saudi Arabia, Venezuela</td>
</tr>
<tr>
<td>Growing new world</td>
<td>Russia, Mexico, India, Saudi Arabia, Venezuela</td>
</tr>
<tr>
<td>Talent importers</td>
<td>Russia, Mexico, India, Saudi Arabia, Venezuela</td>
</tr>
<tr>
<td>Protracted crisis</td>
<td>Russia, Mexico, India, Saudi Arabia, Venezuela</td>
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<tr>
<td>Historically strong educational system</td>
<td>Japan, Germany</td>
</tr>
<tr>
<td>Poor state education system, active self-learning, expensive private educational establishments</td>
<td>Russia, India</td>
</tr>
<tr>
<td>Inefficient matching in the labor market, unequal opportunities</td>
<td>Mexico, Saudi Arabia</td>
</tr>
<tr>
<td>High workforce emigration</td>
<td>Russia, India</td>
</tr>
<tr>
<td>Countries with an inert population disengaged from self-development or career building</td>
<td>Russia, India</td>
</tr>
<tr>
<td>Open-air labor market with a high proportion of immigrants and temporary workers</td>
<td>Russia, India</td>
</tr>
<tr>
<td>Dysfunctional educational and labor market system</td>
<td>Russia, India</td>
</tr>
<tr>
<td>Population fleeing the country in search of safety and stability</td>
<td>Russia, India</td>
</tr>
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</table>
5 basic principles of the Kazan Declaration cope with the 7 global challenges of the skill formation system and labor market

7 global challenges of labor market

1. Unreadiness of talent for future jobs
2. Need for life-long learning
3. Lack of motivation and responsibility for personal development
4. Inefficient access to labor market opportunities
5. Lack of diversity and inclusivity
6. Unequal distribution of human capital
7. Need for adapting of shifting values and needs of the labor force

5 basic principles of Kazan Declaration

1. Skills of the future for everyone
   Every person should receive a set of basic competences required for employment amid uncertainty and rapid changes on the labor market. This set should include basic and cognitive skills, as well as social, cultural, green and digital competences.

2. Self-sustainability
   Every person’s professional development should follow a unique and individual path throughout their life.

3. Freedom of opportunity
   The information on job openings available in the employee’s region of residence and beyond should be easily accessible. Employees should be hired based on their competences and actual experience, regardless of their formal education, life situation, physical health, or social status.

4. Skills mobility
   Labor mobility, flexible employment formats and remote (virtual) employment should be available to everyone, regardless of their current place of residence.

5. Respect to individual
   Individual is a core value. The workplace and the working conditions should enable self-fulfillment and professional development of every employee.
Mass uniqueness is based on three main blocks: capabilities, motivation and access for everyone.

Capabilities, motivation and access are created through cooperation between all participants of the ecosystem – the state, employers and the educational system.

Employees have all necessary skills and knowledge to be in demand in the labor market in conditions of uncertainty.

Employees are motivated to develop and adapt to change in order to realize their potential.

Labor market opportunities are available to all potential employees and are consistent with their values and needs.
21st century challenge: change the social contract for activation of individual responsibility for professional development and self-realization for everyone

**Evolution of the social contract**

**Government**
- Maintaining public order and fairness
- Ensuring access to development and work opportunities for everyone

**Employer**
- Exploiting available labor force resources
- Skill-based and value-based hiring, providing opportunities for development and self-realization

**Education**
- Individual development path defined by birth and interests of the state
- Standard skills development for general labor force
- Individual life-long learning for everyone
- Strategic development of the elite

**Individual**
- One profession and usually one employer for the whole life
- One profession for the whole life, possible shift between different employers
- Responsibility for own path, conscious self-development and employment throughout life

Before industrial revolution
- Development by birth
- Loyalty – protection

XX century
- Mass standardization
- Productivity – stability

XXI century
- Mass uniqueness
- Responsibility – opportunities
BRICS FUTURE SKILLS
CONFERENCE

Profile: talent exporters
Based on the example of Russia

1. Human-centricity of the system

   - Fundamental skill set
     Focus on critical thinking development is above average: 3.9 points vs. 3.5 points for 140 countries
     Middle level of digital skills: the country ranks 41 out of 135 countries
     Countries are in top 25 in terms of mathematical skills
     The population shows strong skill of collaborative problem-solving: the average score is 473 with an average of 483 for 53 countries
     The number of people with a higher education aged 25-35 is 58%, which is above the average value for the OECD countries (44.5%)

   - Life-long employability
     The difference on average between high- and low-qualified employees is only 20%
     The population’s commitment to self-learning is below average

2. Skill mismatch

   - Accessible opportunities
     Support for the unemployed is above average: rank top 46 out of 125
     Ease of finding skilled employees is on the average level: rank 60 out of 125
     Companies use online platforms to search for employees and make the most of information about vacancies available, yet some vacancies are closed using only internal corporate resources, which makes the hiring process non-transparent
     Low internal mobility between regions: rank 99 out of 140
     Limited support and integration programs for migrants
     Limited opportunities for freelancers and part-time employees: an average of about 10% work less than 40 hours per week, while the average is 25% for 156 countries
     Participation of aged population in the labor force is 7% (in same age group), i.e. lower than the average in the OECD countries (15.3%)
     Legal discrimination against women in carrier and business development is in line with the average level for 189 countries, but the indicator is much higher compared to the OECD countries
   - Skill liquidity
   - Labor market inclusivity
   - Value-driven employment

Sources: WEF, 2016-2018; OECD PISA, 2015; OECD 2017-2018; INSEAD, The Adecco Group, Tata Communications, 2018; World Bank, 2018; ILO 2015; UNDP, 2018; Martin Prosperity Institute, 2015; Tomson Reuters, 2018; BCG analysis.
Case #1: Career advice in Russia

“Ticket to the Future”

50% of young people (18-24 yrs) do not feel confident that they will be able to find the job they really want to do*

The most significant factors, influencing the mindfulness:

- Access to Internet
- Live talks with real professionals

Sources: OECD, WorldSkills “Youth Voice for the Future of Work, 2019

2018
More than 187 000 participants (10-17 yrs) from 41 regions of Russia

2019
More than 700 000 participants (10-17 yrs) from 61 regions of Russia

2020+
- Collecting digital footprint
- Different formats of vocational guidance
- Career advice programmes for adults
Case #2: “Skills of the Wise”

**REQUEST OF EMPLOYEES**

- Industry Employees 50+
  - New Skills
- Unemployed 50+
  - New Professions
- Adults 50+
  - New Skills and Professions

**REQUEST OF EMPLOYERS**

- Transforming Working Places
- New Working Places
- Existing Working Places

Retraining and Continuing Education Programmes

- 13,543 people as per October 31, 2019

**II Skills of the Wise – National Final**

- 26 skills competitions
- 181 participants from 32 regions of Russia
Case #3: Demonstration Examination based on the WorldSkills Standards

1. EVALUATION OF TVET GRADUATES’ SKILLS
2. IDENTIFYING STRENGTHS AND WEAKNESSES
3. INFLUENCING THE TVET SYSTEM DEVELOPMENT

DEMONSTRATION EXAM → MASS EVALUATION OF STUDENTS/GRADUATES → INDIVIDUAL EVALUATION OF CHAMPIONS → WORLDSKILLS COMPETITIONS

More than 93 000 students took Demo Exam since 2017.
Prospects of Cooperation in BRICS Skills Development

1. **Identify** the shared areas of economic/tech/social growth and development

2. **Choose** the priority skills, involve industry and edu partners

3. **Develop** new formats of training and cooperation programmes
Thank you for your attention!

Share best-practices to overcome skills gap

Research “MISSION TALENT: MASS UNIQUENESS a global challenge for one billion workers”