



GLOBAL
EDUCATION
FUTURES

Skills of the future and transformation of global educational ecosystem

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Global Education Futures: what is it

Global Education Futures is an **international platform** that brings together **shapers and sherpahs of education & training systems and their industrial & political counterparts** to discuss the future landscape of skills and global education & training ecosystem

Over 500 global experts from 50 countries (incl. international education development agencies, leading EdTech providers, top universities etc.) participated in sessions held in Europe & Russia, United States, India, South Africa, Mexico, Brazil & Argentina, New Zealand, etc.

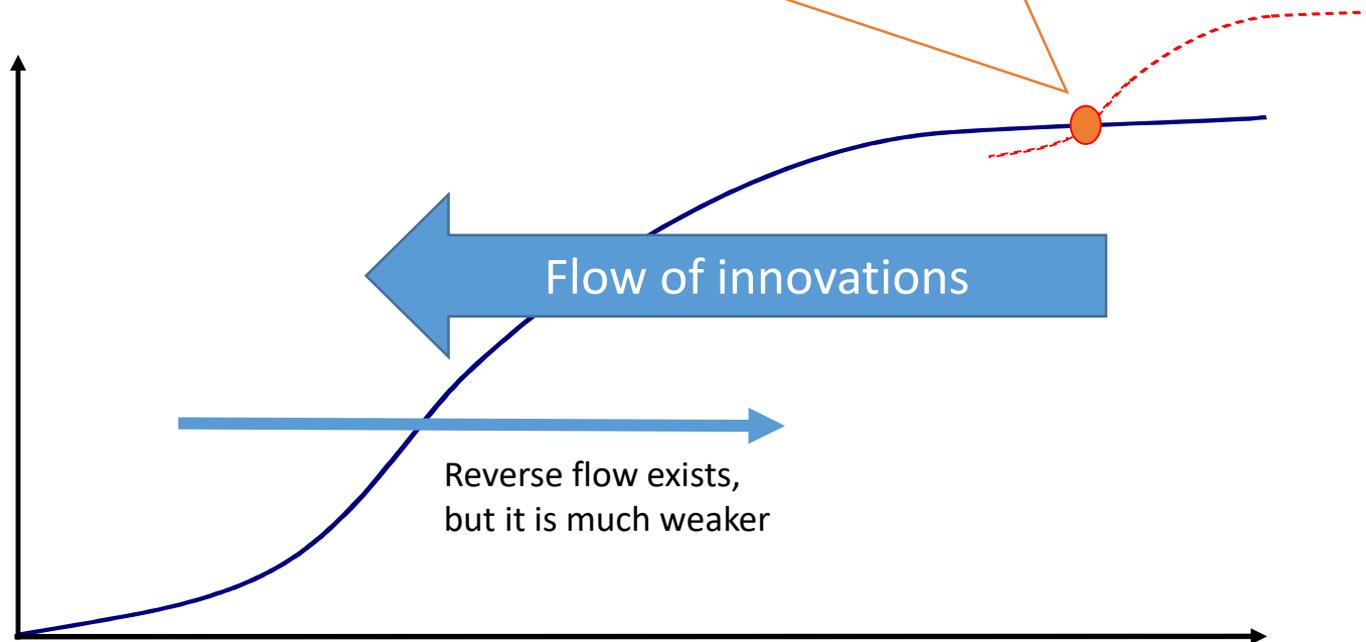
Systemic innovations being **scaled up** on Russian & international level as a part of this effort since 2011





What should be the focus in understanding the future of skills & education?

Our focus: looking at the cutting edge of technological & educational practices



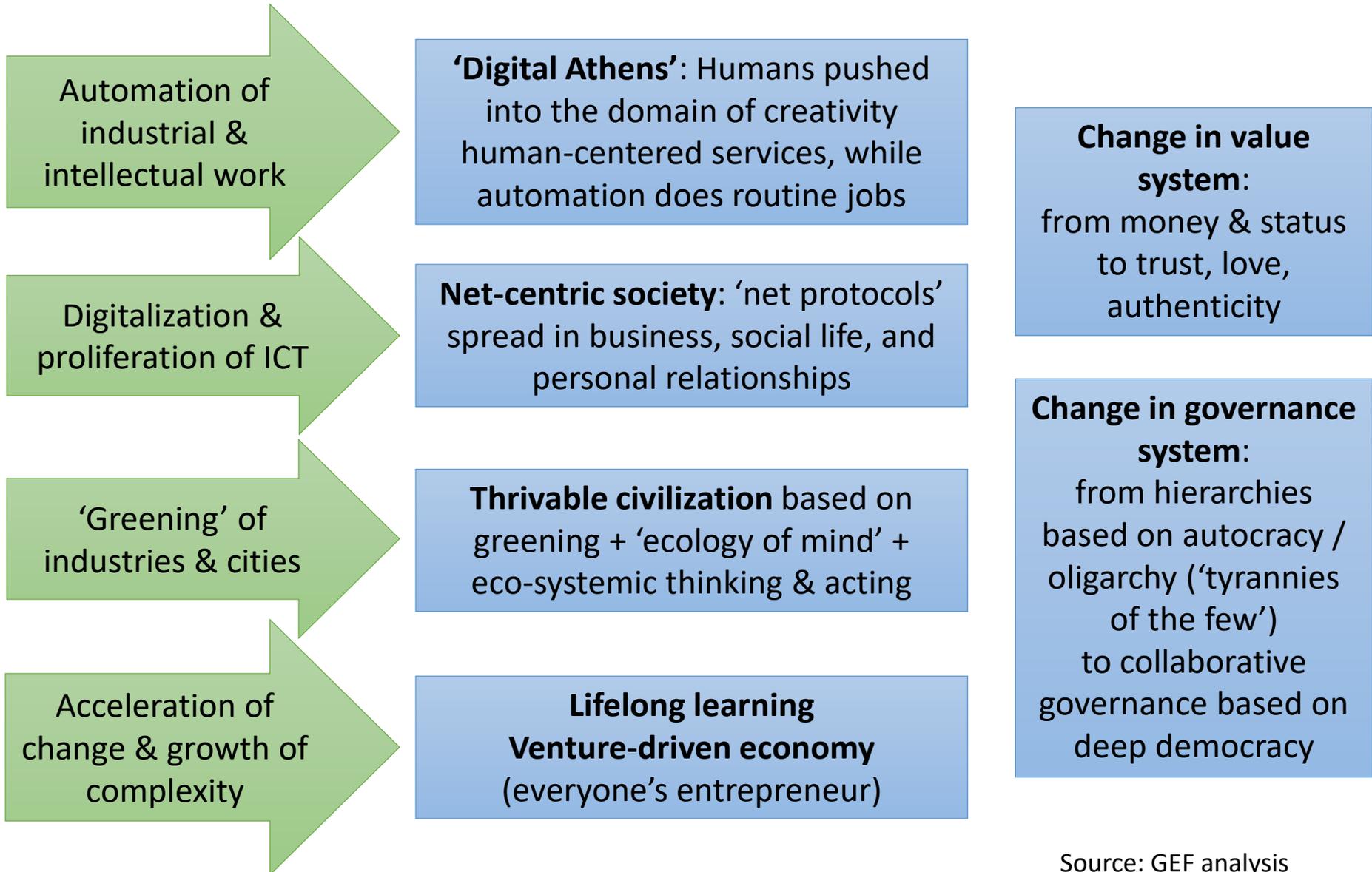
Early industrialized regions
Ca. 40% of the world's population (more in Africa, Latin America, Central Asia)

Industrialized regions
Ca. 45% of the world's population (more in China, India, the Arab World, SEA, parts of EU & North America)

Regions with dominant new or post-industrialized practices
Ca. 15% of the world's population (more in OECD countries + "pockets" within emerging economies)



Key drivers of change in global socio-economic model





How may the disrupted & transforming economy look in next 15-20 years?

Manufacturing sector

Service sector

Standardized output
(largely automated)

Mass-scale industrial manufacturing (e.g. energy, natl resources, food, chemistry & new materials, machinery & equipment etc.): *highly autonomous* cyber-physical manufacturing systems

Digitalized & machine-assisted **massive use services** (e.g. digital health, digital entertainment, unmanned transportation, post-retail distribution, etc.)

Customized output
("human touch")

Customized end-user manufacturing (consumer electronics, consumer transport, apparel, furniture etc.): *localized personalized* production based on 3D manufacturing

Customized **highly-personalized services** (e.g. wellness, psychotherapy, fitness & tourism, hospitality, personalized art & entertainment, etc.), both digital & physical



Shape of things to come: a hypothesis on future job market landscape

Massive shifts of job market structure within less than one generation will require multiple mechanisms to smoothen transformation (including education & training)

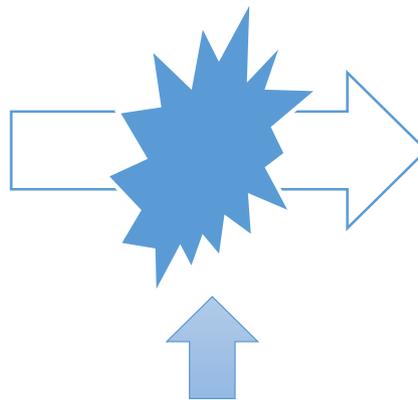
Existing (industrial) model

~60% of jobs directly or *indirectly* serve systems of mass production (incl. design & engineering, finance, marketing etc.)

~5-10% of jobs “feed” us (agriculture)

~10% of jobs: urban-related services & products

~20-25% of jobs are human-to-human services (incl. education, healthcare, wellness, govt etc.)



Technological & social shifts of next 15-20 years

Emerging model of 2030s

Not more than 10-15% of high-skilled jobs (direct + indirect) remain in food, commodity & goods mass production due to automation

25-30% of jobs migrate into personalized manufacturing & urban-related jobs

Explosive growth to 50-60% of jobs in human-centered services (incl. new services) as they are least susceptible to automation



Professional, soft & meta- skills of workers & citizens of the future

Key professional skills

- Multidisciplinary work (T-specialist to m-specialist)
- Multicultural + multi-lingual competencies
- IT competencies
- Working in distributed (IT enhanced) environments

Soft skills

- Problem- and *opportunity* oriented thinking (*not* critical thinking)
- Entrepreneurial skills: acting in uncertainty & taking responsibility (for VUCA environments)
- Creativity (incl. “right-brain” creativity)
- Collaboration
- Empathy & emotional intelligence
- “Ethics of responsibility” (social + environmental)
- “Information hygiene”: assessing quality of information, employing good communication practices

Meta-skills

- Concentration & attention management
- Flexibility & adaptability
- Resilience & personal (physical / psychological) health management
- Self-development + ability to unlearn / relearn throughout life



“Complexity skills”: a particular focus of higher education?

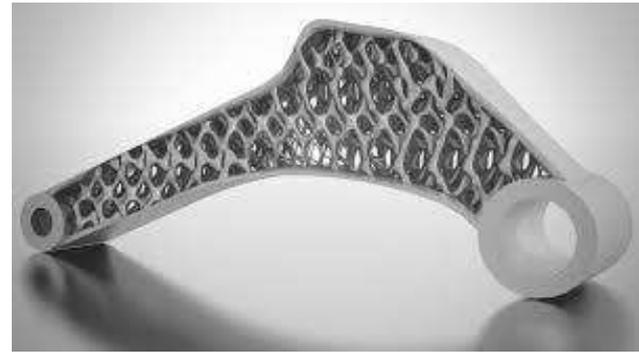
Human based processes

Technology based processes

Design



Collective intelligence



Distributed / generative design

Operations



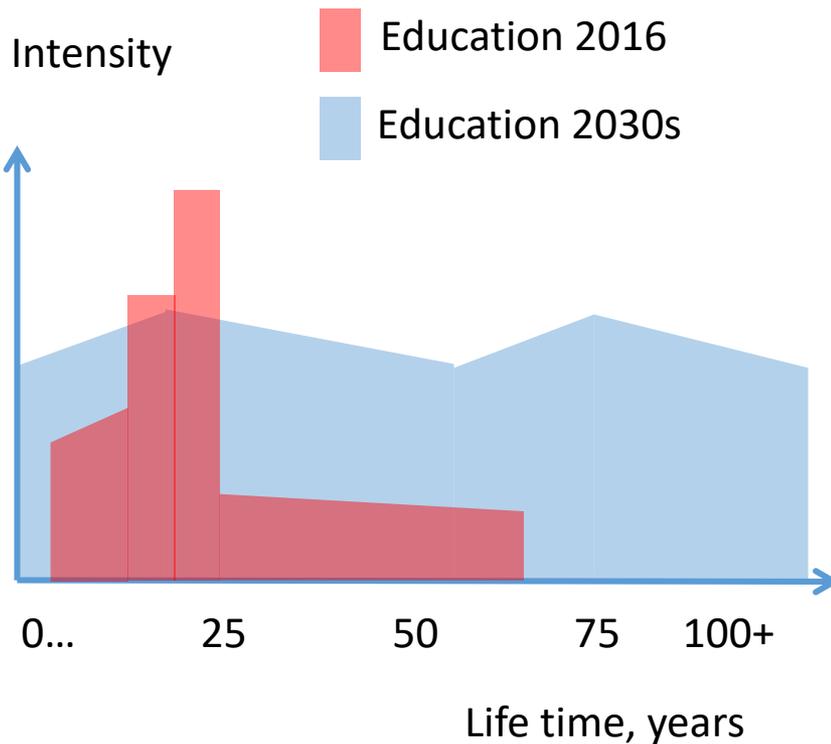
Fluid working environments



AI-augmented management



Demand of complex & dynamic society: transition to lifelong learning

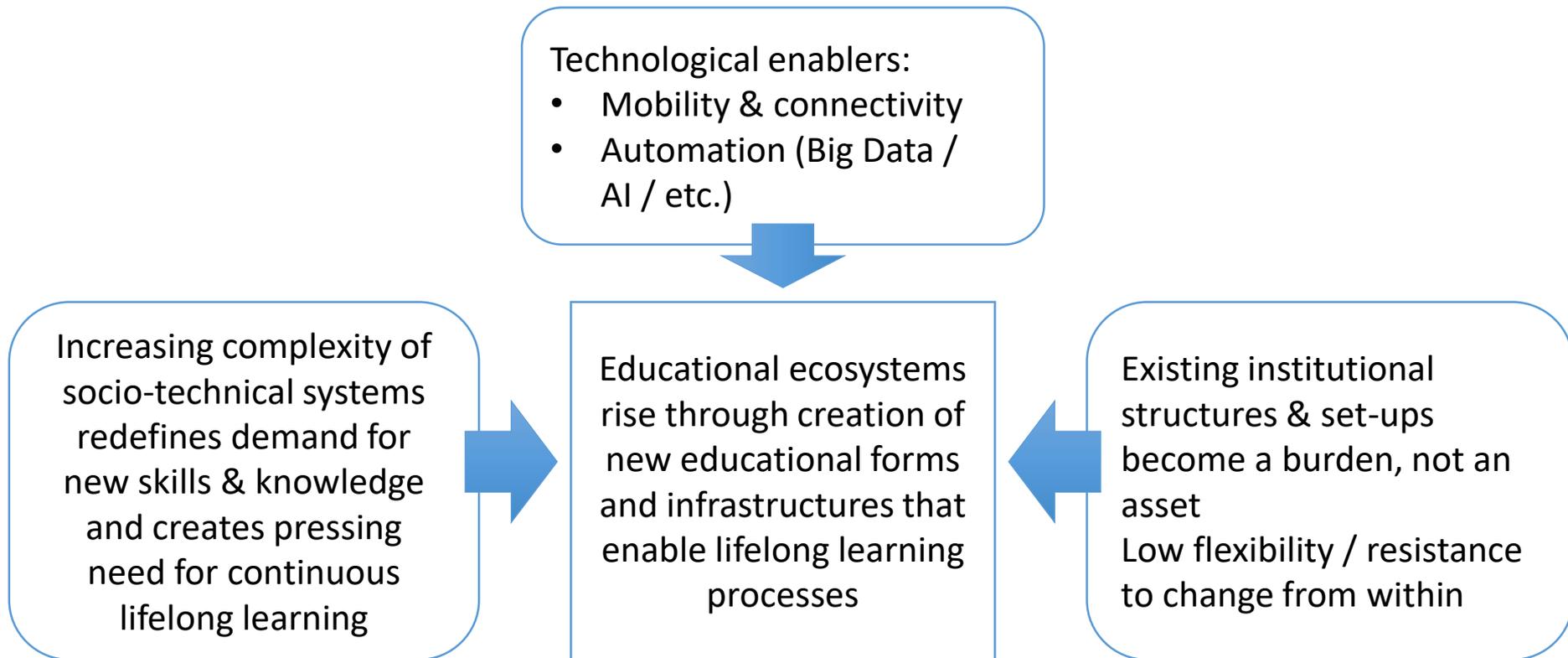


Key transformations:

- There is no way to prepare for life in the increasingly uncertain world
- (Thus) education is not about the start of life, it is about all of life
- Education is not about getting a professional skill, it is about living through your life
- Nobody can own or control your development & growth - but you. So you need to learn to become your own master, you need to learn how to learn
- If learning is a lifetime journey, then it is not about goals, it is about quality of the process. Enjoy the way

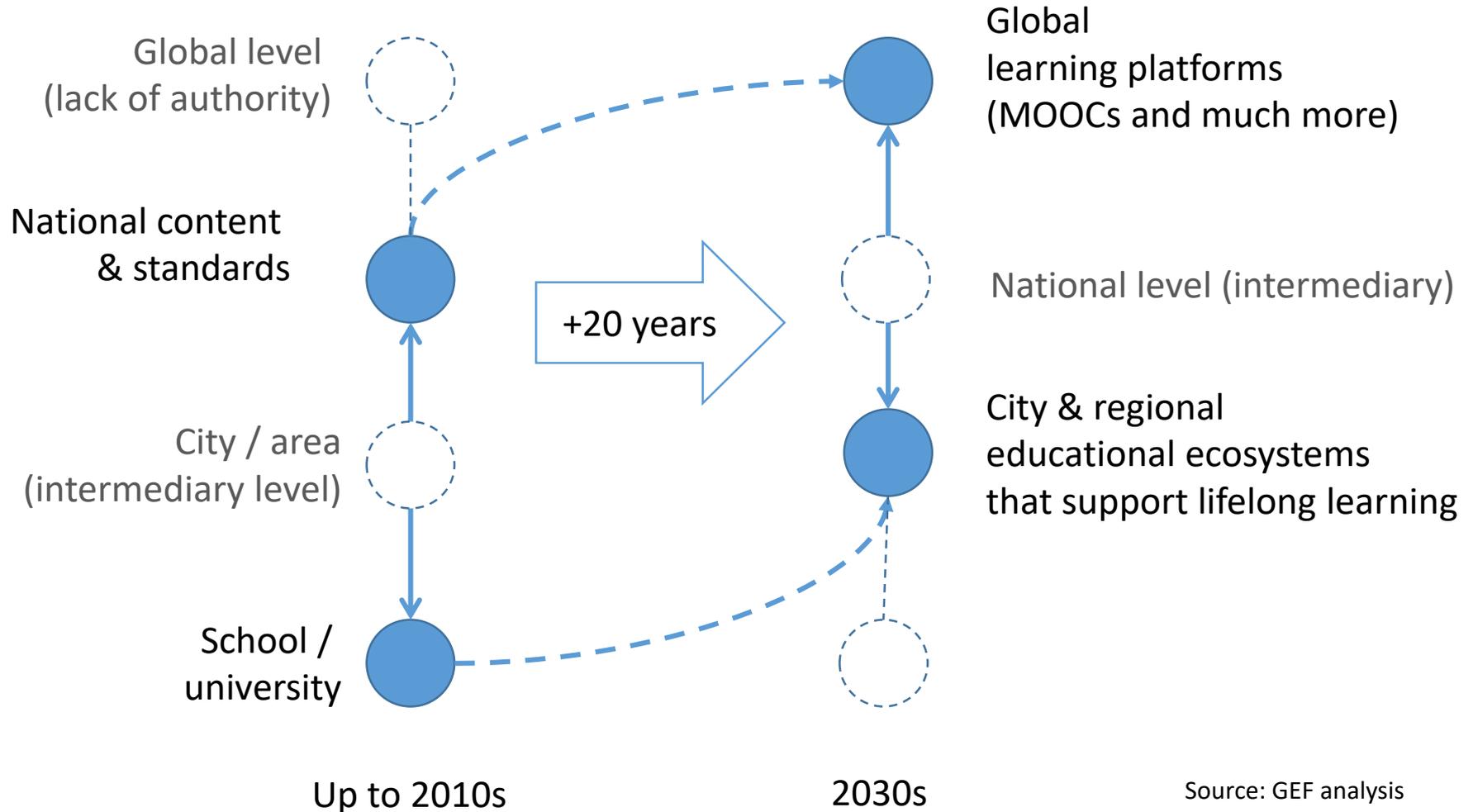


Educational ecosystems evolve from existing (industrial) education system in response to growing demand of transforming societies





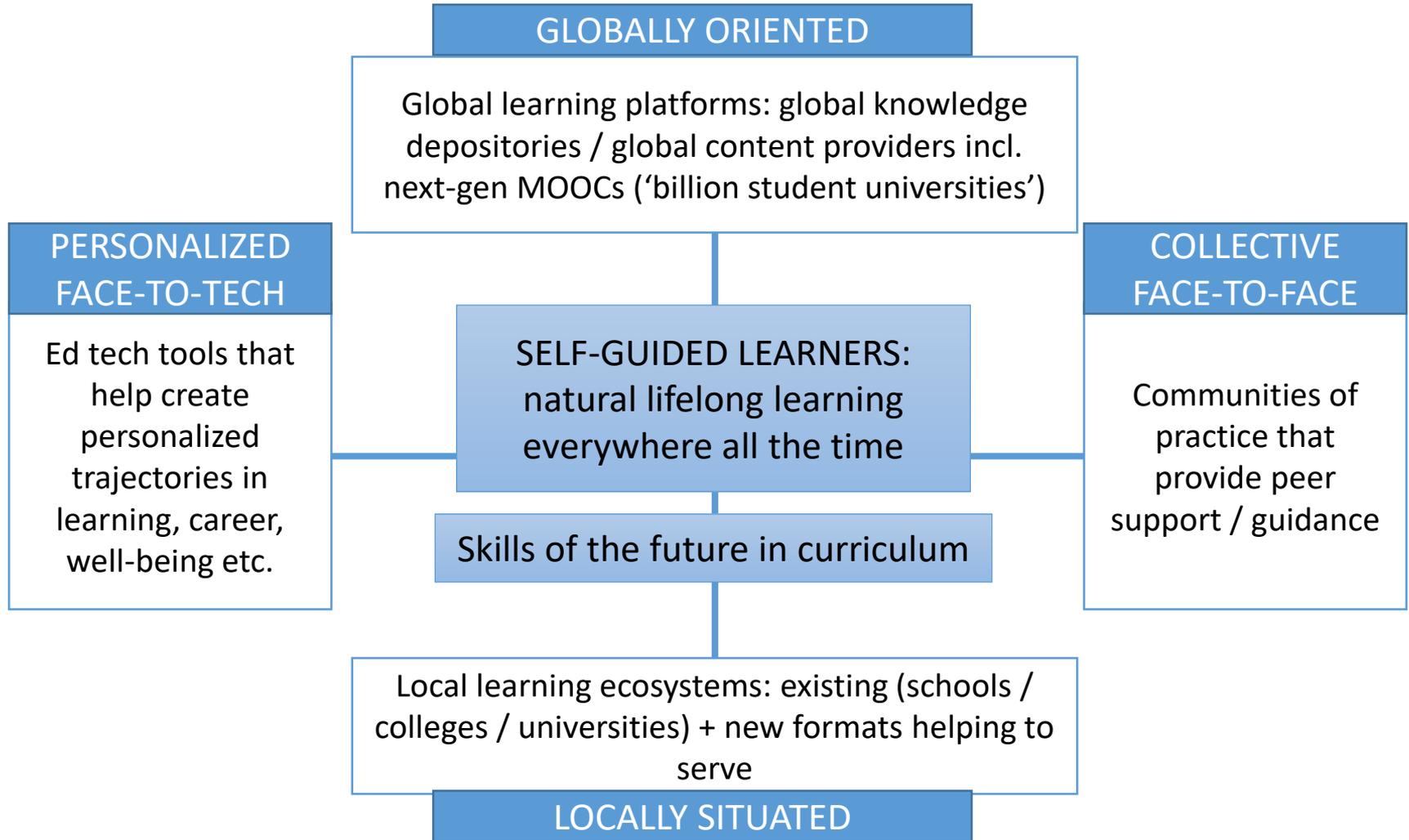
Shift from local-national systems to regional-global ecosystems



Source: GEF analysis

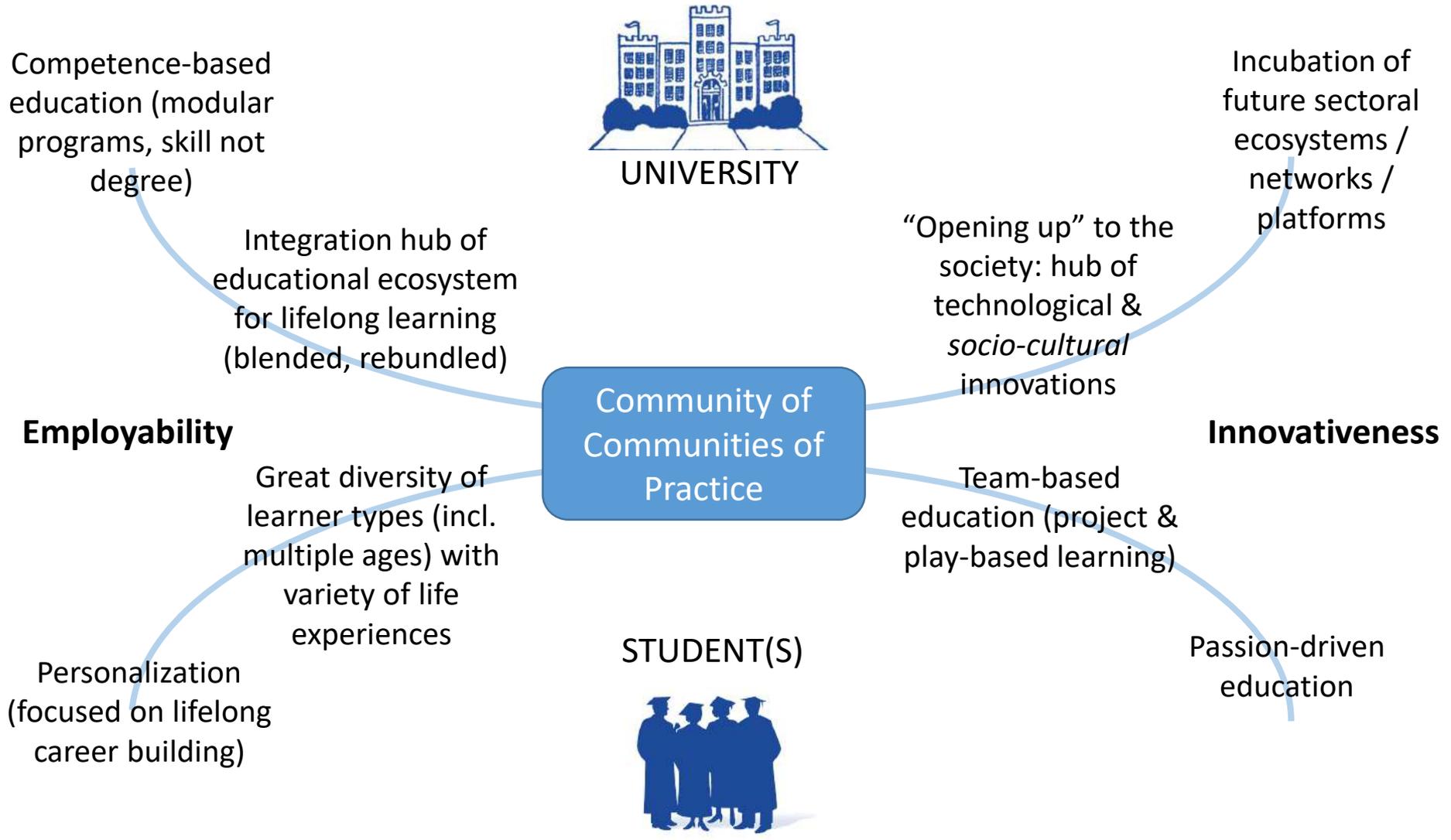


Big shifts ahead: learner-centered lifelong education





University for the complex & evolving society





Voice of (Young) Learners: include the users into the development of educational systems



«When it comes to the design of social and societal systems of all kinds, it is the users, the people in the system who are the experts. Nobody has the right to design social systems for someone else. It is unethical to do so.»

Bela Banathy- «Designing Social Systems in a Changing World»

One of the lines of work in *Global Education Futures* is the involvement of young learners (age 9 to 16) into the redesign and active change of education system in their own interest. Pilot sessions of the *Voice of Youth* project were held in Russia, Argentina and the US (California). In 2016-17, the project will continue with session to be held in ca. 20 countries of the world.





Voice of Youth: they want more than we offer

Position
regarding
schools

- Schools are necessary, but they should be first of all a **“meeting place” for action-based learning together with peers and adult experts**
- Education should be fun (interactive and gamified) and useful (practice-oriented)
- Assessment / evaluation is required, but primarily as a feedback. “The culture of mistake”: it is OK to make mistakes, as we learn through this
- **Technologies** should be omni-present, but they **should not replace teachers and learning partners**, as they are a complementary tool
- Main problem of education is “teachers’ pessimism”, their lack of faith in the future and their feeling of helplessness that they transfer to children!
- School should teach us how to live, not how to pass exams!
- They are ready to become participants and leaders of change
- They want borderless global world without wars, supported by multi-cultural literacy & peacemaking
- They think “greening” is their main task: learn how to feel the nature, reconnect with it, and stop harming it
- We should cease animal abuse and learn how to be kind to people
- Technology frees people from routine and allows them to communicate and create, and brings parents back home (need for family reintegration)
- Their main concern: “adults won’t let us do anything”

Another world is
coming:
the dreams &
suggestions from
children

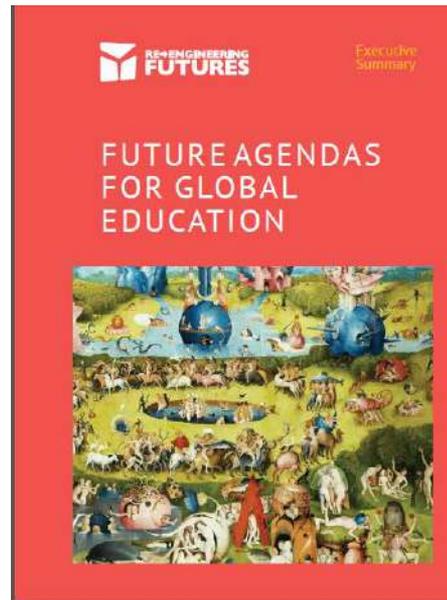
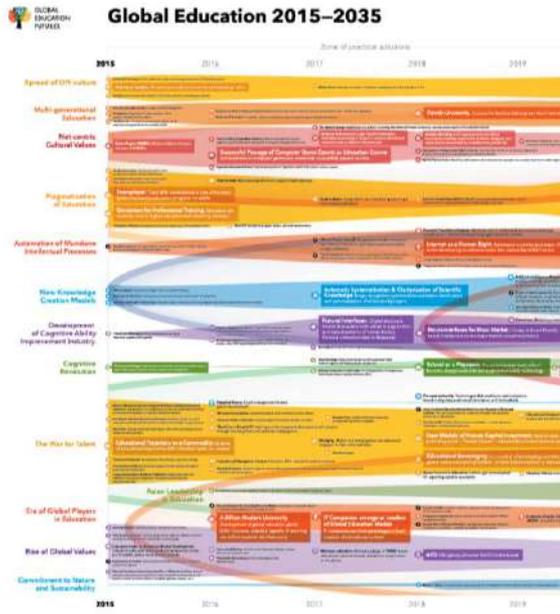


For your further consideration

Map of Global Education 2035

Global Education Futures Agenda report

GEF Infographics



These and other materials available at www.edu2035.org