



The 4.0 Paradigm & RGUKT

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Alumnus Reunion – Alumni Contribution and Connect

❖ Alumni Contribution

- ❖ Who made you successful? Parents, Teachers, Friends and **Society (institution)**
- ❖ Giving back to society has to be a part of our DNA.
 - ❖ Top Universities in USA with highest Endowments
 - ❖ Top three private: Rs. 3L Cr (Harvard), Rs. 2L Cr (Yale), Stanford Rs. 1.8L Cr
 - ❖ Top two public: Rs. 80 K Cr (Texas A&M), Rs. 80K Crore (Michigan)
- ❖ Sharing of expertise and best practices
- ❖ Volunteering – mentoring, advisory role, etc
- ❖ Feedback to faculty

❖ Alumni Connect

- ❖ Keep them in loop – Dean of Alumni Affairs
- ❖ Do not overdo
- ❖ Make association meaningful

The 4.0 Paradigm

Industry 4.0



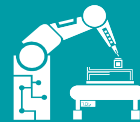
AI & Advanced Analytics



Blockchain



Cyber Security



Robotics



3D Printing



Sensors & IOT



AR/ VR / Mixed Reality

Globalization 4.0 & Global Challenges



Trade wars & protectionist policies



Climate change, UN sustainable dev goals



Geopolitical shifts, inequality



Loss of white collar jobs



Innovation-driven economy

Education 4.0 & New Skills



Responsive to Industry 4.0 needs



Student-centric learning



Experiential learning, blended learning

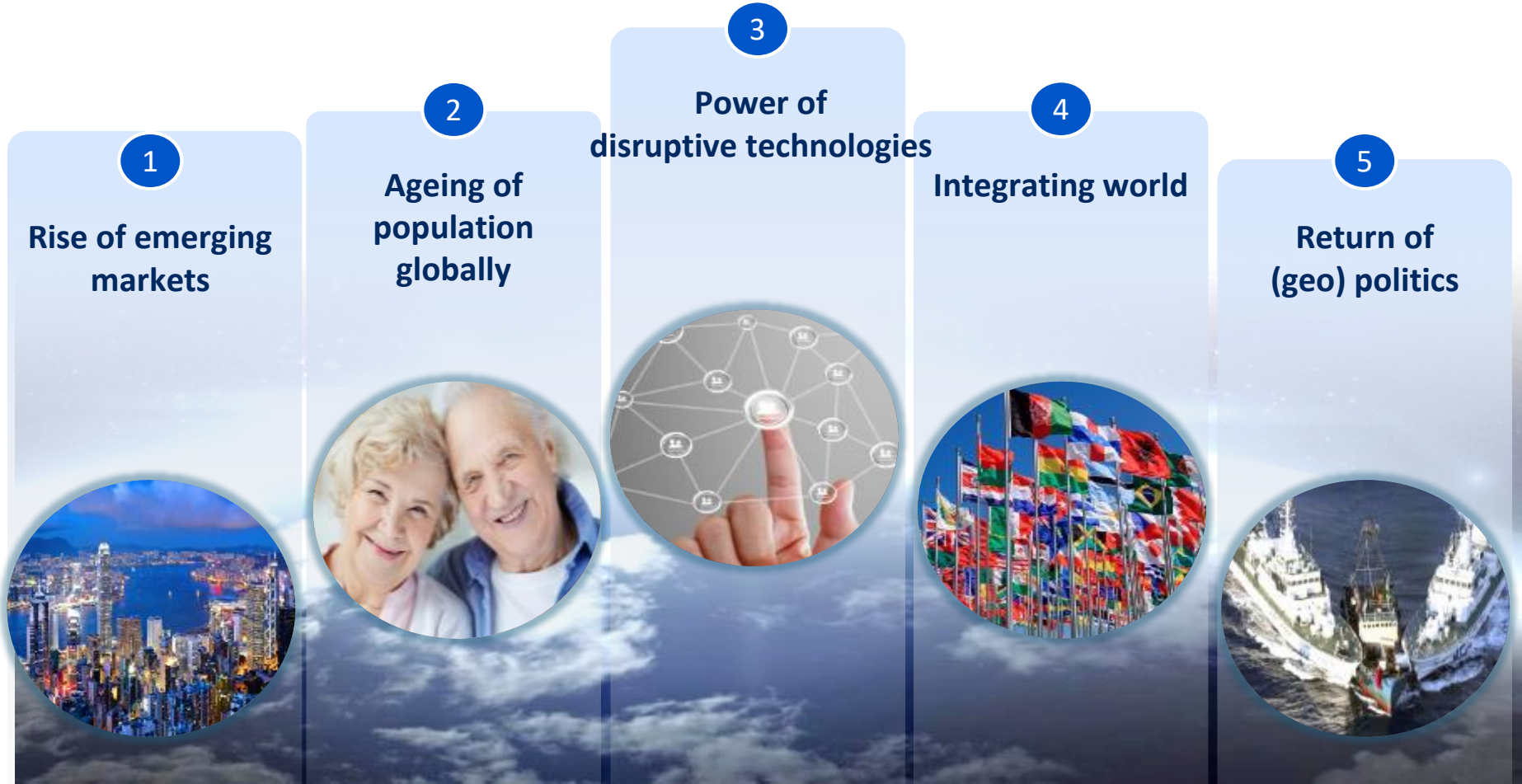


Life-long learning, reskill, upskill



Analytical, problem-solving, creative skills

Five Forces Influencing the World

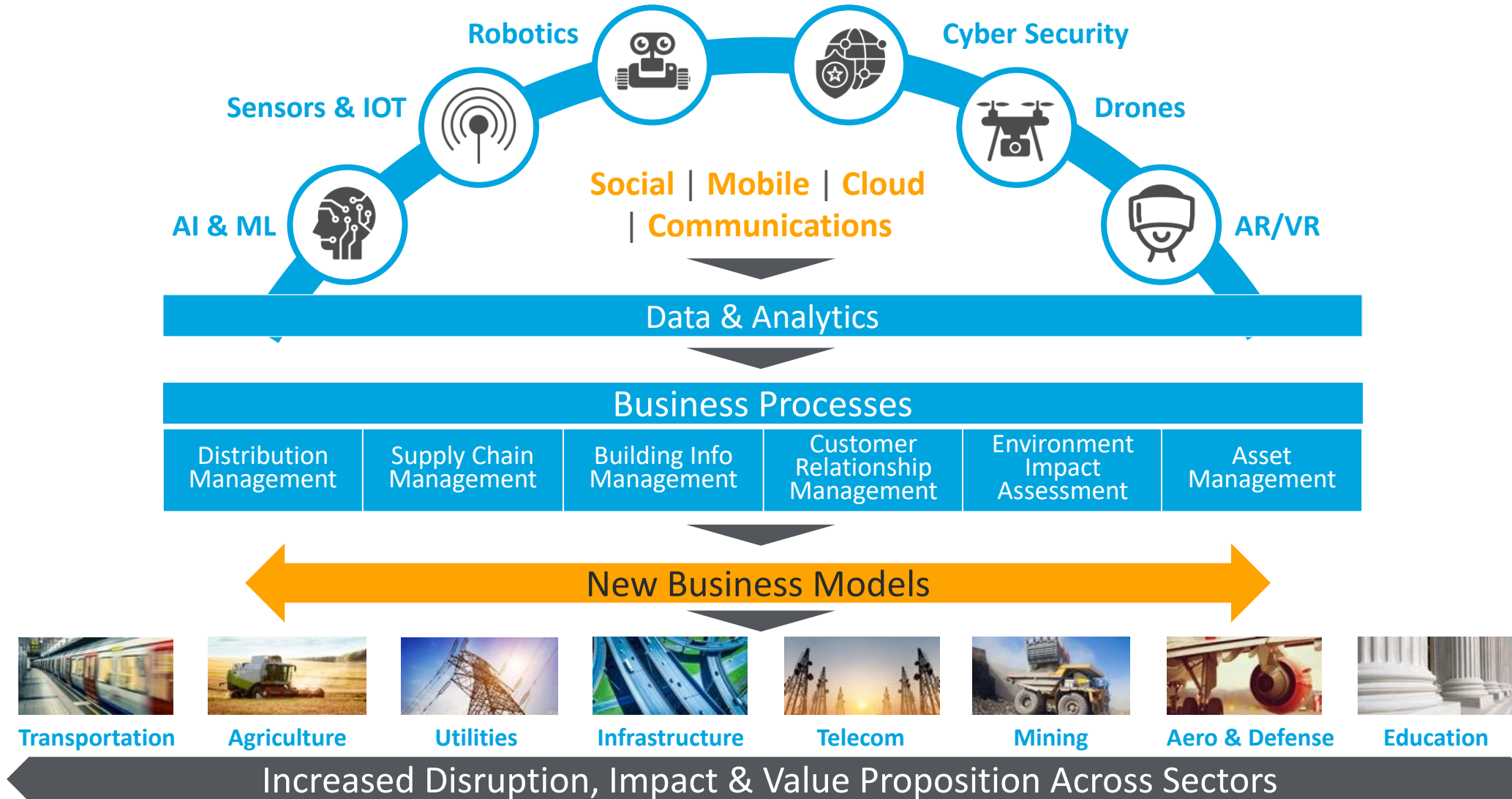


Interesting and challenging times underpinned by

VUCA









Volatility, Uncertainty, Complexity & Ambiguity

Industry 4.0 – Disruptive Innovation Creating High Value Impact



Key to Win in 4.0 Paradigm – Education & Skills

55 new job roles identified across 8 technologies

Technology	Number of Job Roles	Examples of Job roles
 Virtual Reality	12	<ul style="list-style-type: none"> VFX Artist Computer Vision Engineer
 Internet of Things	11	<ul style="list-style-type: none"> Wireless Network Specialist Embedded System Programmer
 Big Data Analytics	4	<ul style="list-style-type: none"> Data Scientist Data Architect
 Artificial Intelligence	10	<ul style="list-style-type: none"> AI Research Scientist Language Processing Specialist
 Robotic Process Automation	5	<ul style="list-style-type: none"> RPA Developer Deployment Engineer
 3D Printing	4	<ul style="list-style-type: none"> 3D Modeling Engineer 3D Designer
 Cloud Computing	5	<ul style="list-style-type: none"> Cloud Architect Migration Engineer
 Social & Mobile	4	<ul style="list-style-type: none"> Android/ iOS App developer Digital Marketing

Unique roles
 Common roles

Source: LinkedIn & Indeed Analytics, Discussion with experts, BCG Analysis

Key to Win in 4.0 Paradigm – Education & Skills

Future Skills Platform - Industry-wide collaboration critical to create a sustainable talent pool

futureskills
A NASSCOM Initiative

IT - ITes SSC
NASSCOM

What is FutureSkills? How does it work? How can you join? Resources Take a Look

NASSCOM FUTURESILLS

An industry driven learning ecosystem to get India accelerated on the journey to building skills and becoming the global hub for talent on emerging technologies. The initiative focuses on building technology skills spanning 155+ skills for 70+ job roles on 10 emerging technologies and 10 non-tech skills.

[KNOW MORE](#)

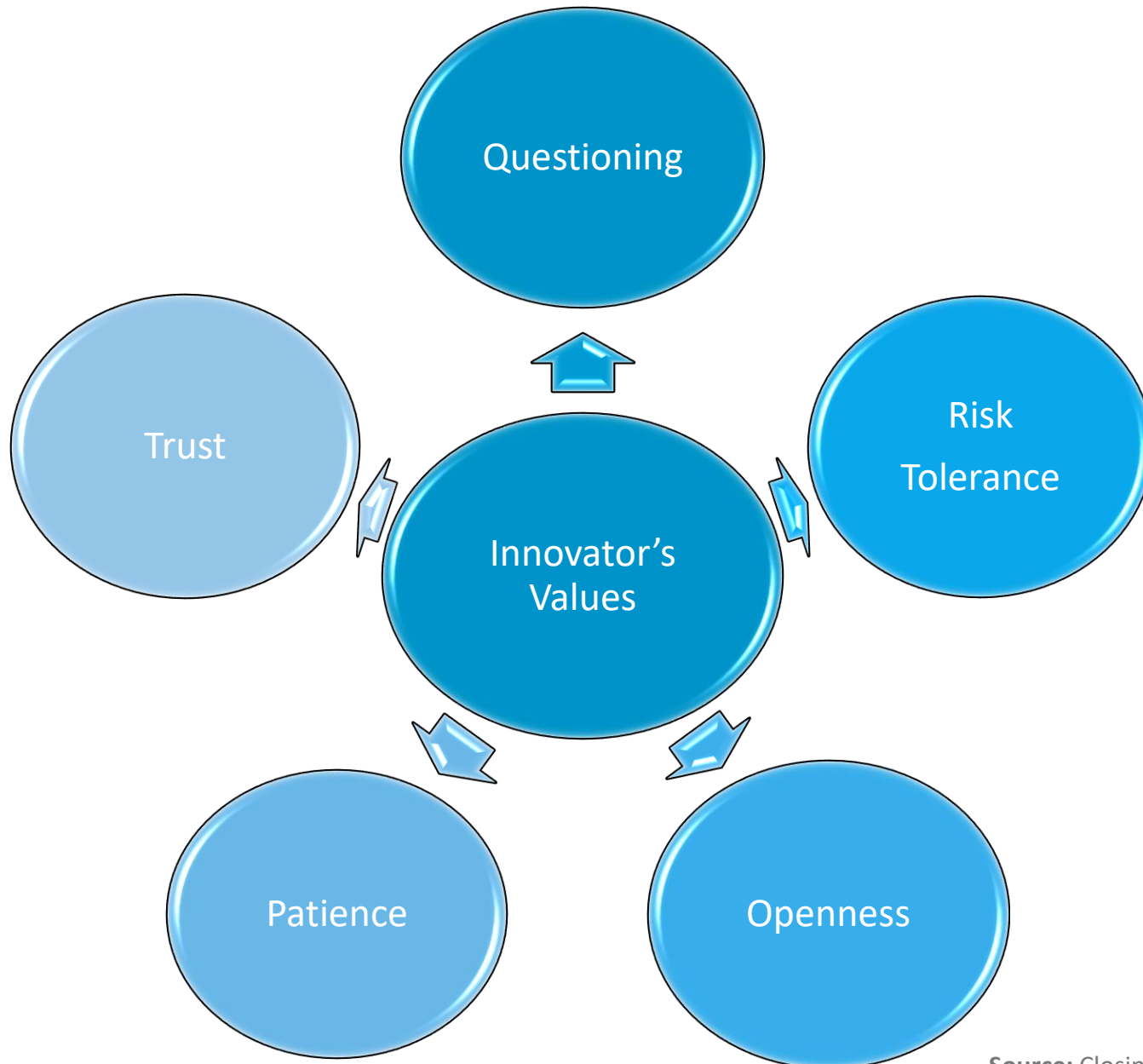
Virtual Reality Cloud Computing 3D PRINTING

Robotic Process Automation (RPA)

Cyber Security Big Data Analytics Internet of Things (IOT) Artificial Intelligence

Source: Nasscom

Key to Win in 4.0 Paradigm – Innovation

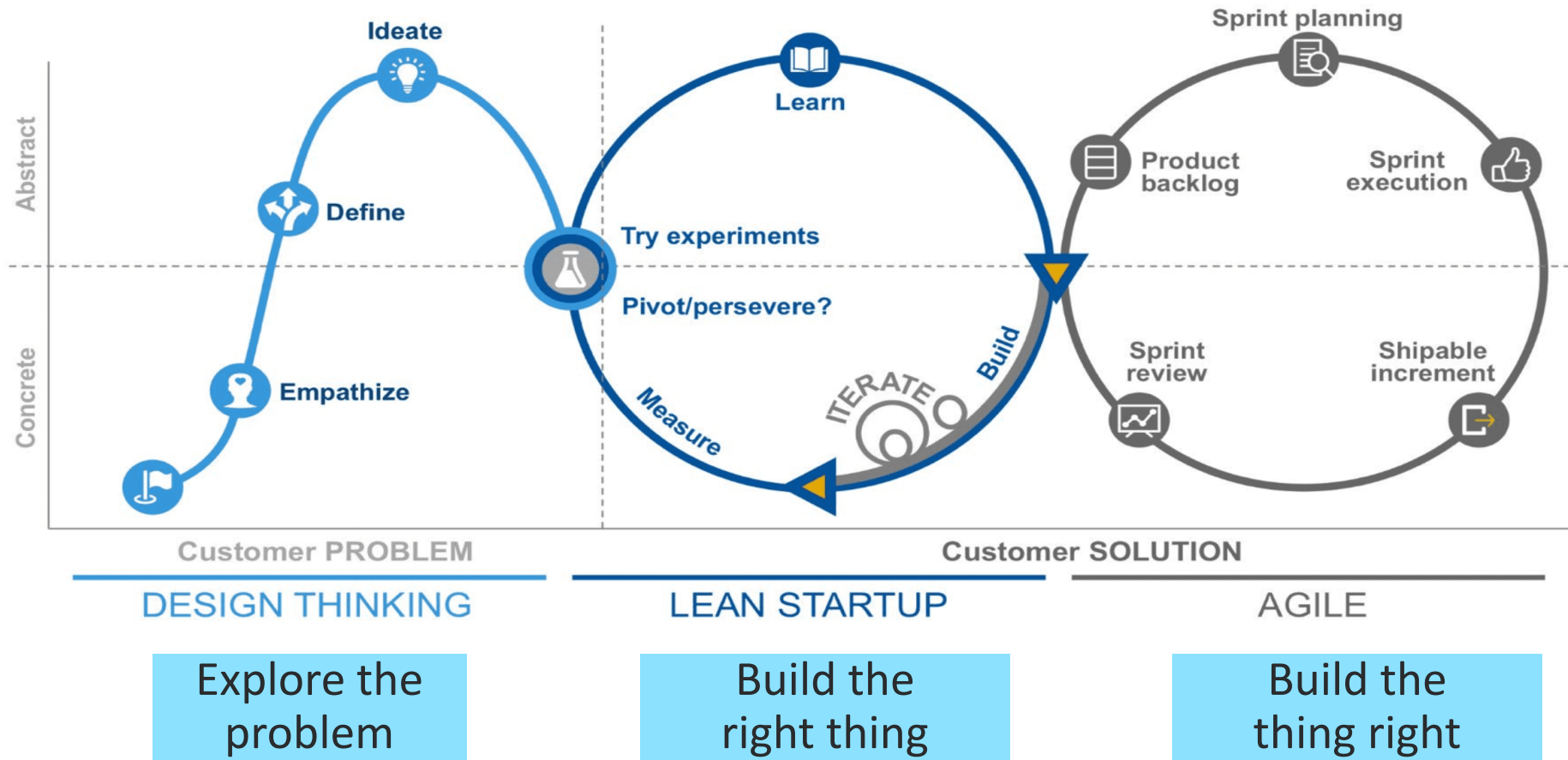


Innovation is the process of translating an idea or invention into a good or service that creates value or for which customers will pay

- ✓ Questioning things curiously and in an unbiased way that frames things broadly
- ✓ Risk tolerance, with an attitude towards early/often failure
- ✓ Openness to new ideas and new information
- ✓ Patience and tenacity
- ✓ Trust in oneself and in the social safety net

Key to Win in 4.0 Paradigm – Entrepreneurship

Innovation to Entrepreneurship - The Virtuous Cycle: Design Thinking-Lean Startup-Agile



Expectations of Industry, Society and Markets

- **Job-Ready:** For the benefit of institution, employers and students
- **Lifelong learning:** Institutions and individuals have to gear up to this new reality
- **Entrepreneurial mindset:** Overcome challenges, be decisive, and accept responsibility



• Role of RGUKT - A Student-centric Education Model •

Parameter	Education 4.0
Student	Increasing non-traditional students; Affordable learning solutions with quick ROI; Flexibility & multidisciplinary options; Multiple formats and days/times; Career counselling support; Proactive information
Faculty	Quality full-time faculty, industry experts for physical and online classrooms
Curriculum	STEAM, Multidisciplinary, interdisciplinary courses; Curriculum partnerships; personalized learning paths; self-paced & career oriented
Pedagogy	Interactive learning; Use of SMAC & MOOCs; Mobile-based education; Predictive analytics to identify at-risks; personalized attention.
Infrastructure	New investments into tech infra for blended learning
Experiential learning	Learning by doing; Application of knowledge; Simulators, AR/VR, & industry connect

• Role of RGUKT - A Student-centric Education Model

Parameter	Education 4.0
Competency based learning	Advance with mastery, not by credits; Explicit, measurable & transferable learning objectives; Timely, differentiated support based on individual learning needs
Focus on employability, not employment	HEIs to enrich student learning experience; Focus on employability
Real time exposure to industry	Real time exposure to industry; Tighter student-industry connect; Employability & Real time exposure to business environment.
Research	Collaborative research; Virtual groups & discussion forums; Peer-to-peer research across geographies
Student experience is paramount	Enrich student experience; Customized & flexible environment; Self-paced & experiential learning; Support life-long learning via multiple entry & exit options

5 Imperatives for 4.0 Paradigm



**Overhaul
education system
Curriculum,
Faculty,
Pedagogy**



**Innovation,
Incubation,
Entrepreneurship**



**Unification of
knowledge+skills,
upskilling &
reskilling**



**Social equity,
diversity,
inclusivity**



**Long-term
Learning**



Thank you