

An Entrepreneurial Mindset for Technology Leaders and Scientists

**Guidelines and methodologies for effectively stimulating an
entrepreneurial mindset in technology executives and managers**

Bruno lafelice, PhD
IEEE Senior Member



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

ARCES - ADVANCED RESEARCH
CENTER ON ELECTRONIC SYSTEMS
"ERCOLE DE CASTRO"

Innovation Partners
Engineering Consultancy



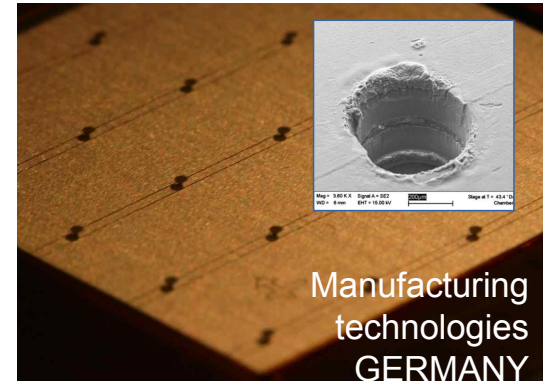
Istituto Italiano
Imprenditorialità



Biosensors
cell metabolism
ITALY



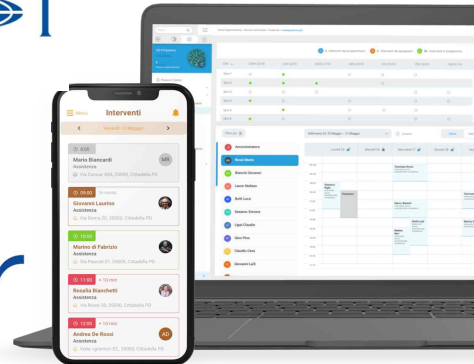
THE ANGELS' FORUM
Palo Alto, US



Manufacturing
technologies
GERMANY



vitæver



Bologna University, Bachelor +
Master, Electrical engineering

PhD, Electrical Bio-sensors

Santa Clara University,
Entrepreneurship and new
venture creation



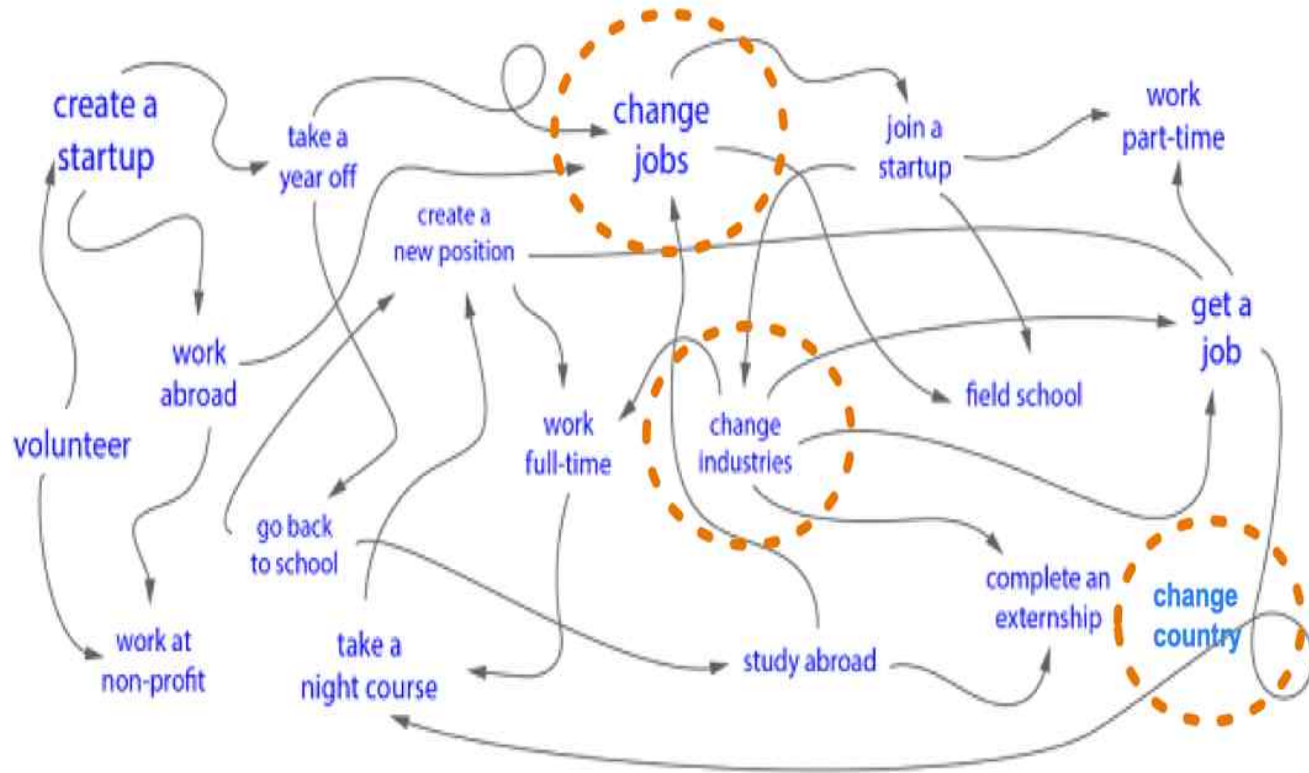
TVLP INSTITUTE
SILICON VALLEY

Rooted in Silicon Valley, the Institute has a faculty of 35+ members: venture capitalists, successful entrepreneurs, and world's top technology leaders. It educates international talents from 42+ countries in entrepreneurship and innovation.

Professional development is not (any more) linear

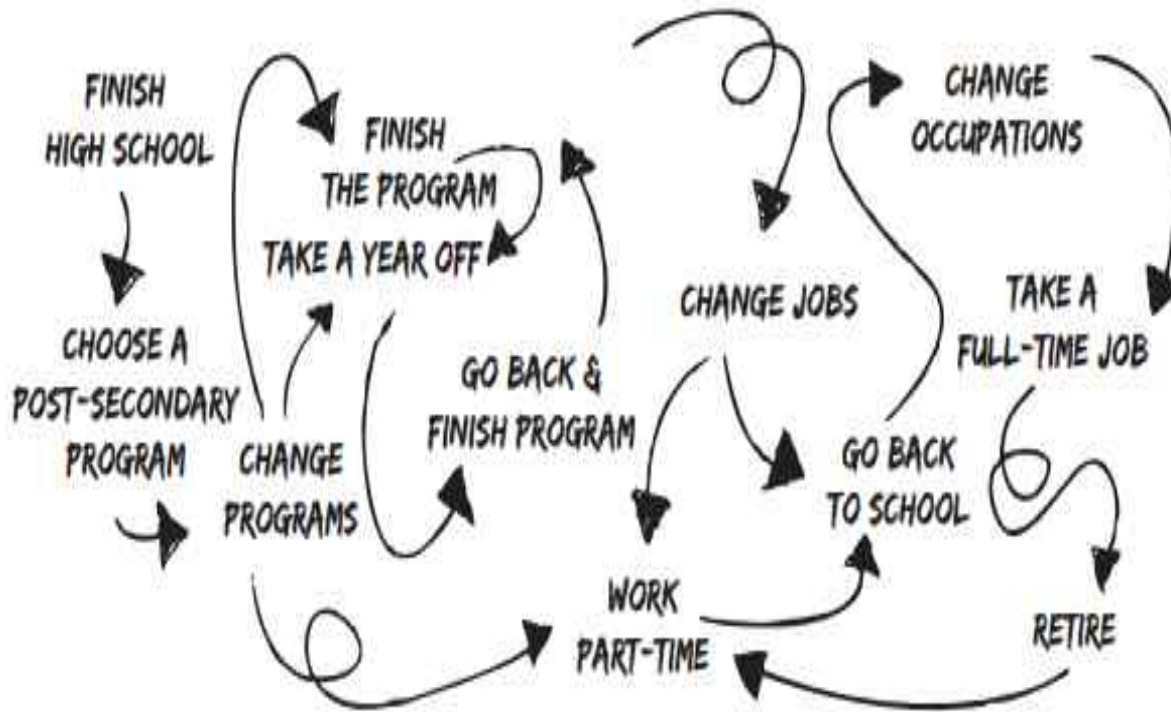
Fast
technology
development.

Change job,
industry,
career,
country.



Ph. credit: C. Campbell

Education should be not linear too



We are forced to learn fast and to follow up with the innovation.

Covid-19 amplified this process. The Great Resignation 2021

Accordingly to
 CNBC, 53% of
 Americans in 2021
 have reconsidered
 their job.

INVEST IN YOU: READY. SET. GROW.

Half of Americans who quit their jobs last year made a career change. Here are 5 steps to take to do the same

PUBLISHED WED, MAR 9 2022-10:01 AM EST | UPDATED WED, MAR 9 2022-11:06 AM EST



Michelle Fox
 @MFOXCNBC

WATCH LIVE



Richiesd | E+ | Getty Images

If you want to change careers, you are not alone.

It turns out the “Great Resignation,” also known as the “[Great Reshuffle](#),” has many Americans rethinking the type of work they are doing. Some 53% of employed U.S. adults who quit their job in 2021 changed their occupation or field of work at some point last year, an analysis from Pew Research found.

And Quiet quitting 2022

Employees
want to acquire
new skills.
Employers
need to instill
transferable
skills.

TECH AT WORK

Gen Z workers demand flexibility, don't want to be stuffed in a cubicle

The young generation of professionals is entering the workforce with new demands — including increased flexibility, wellness perks and authenticity — shaped by their experiences during the height of the pandemic



By Danielle Abril

August 11, 2022 at 7:00 a.m. EDT



(Jiaqi Wang For The Washington Post)

EMPLOYER

The global pandemic has accelerated the digitalization process and an urgent need for new skills to support significant business changes.

80% of companies reported that programmatic skills' transformation positively impacted the ability to realize company strategy and increase employees' performance and satisfaction [McKinsey survey].

EMPLOYEE

Gen Z wants a better work-life balance.

Flexibility is key, hybrid or remote options.

Prioritize learning. Gen Z wants to grow and learn, and work on their ideas.



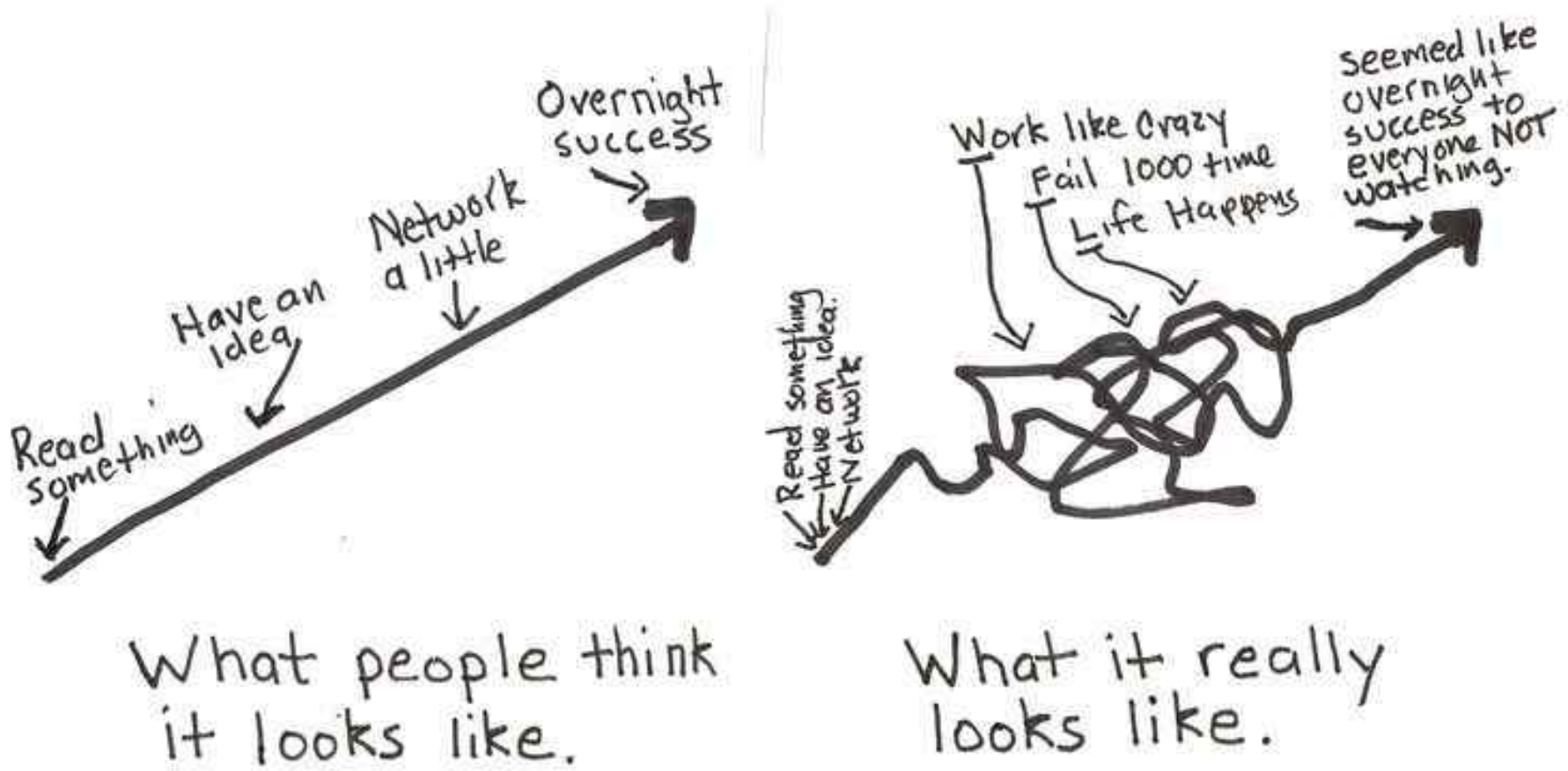
Forbes

The 7 Transferable Skills To Help You Change Careers

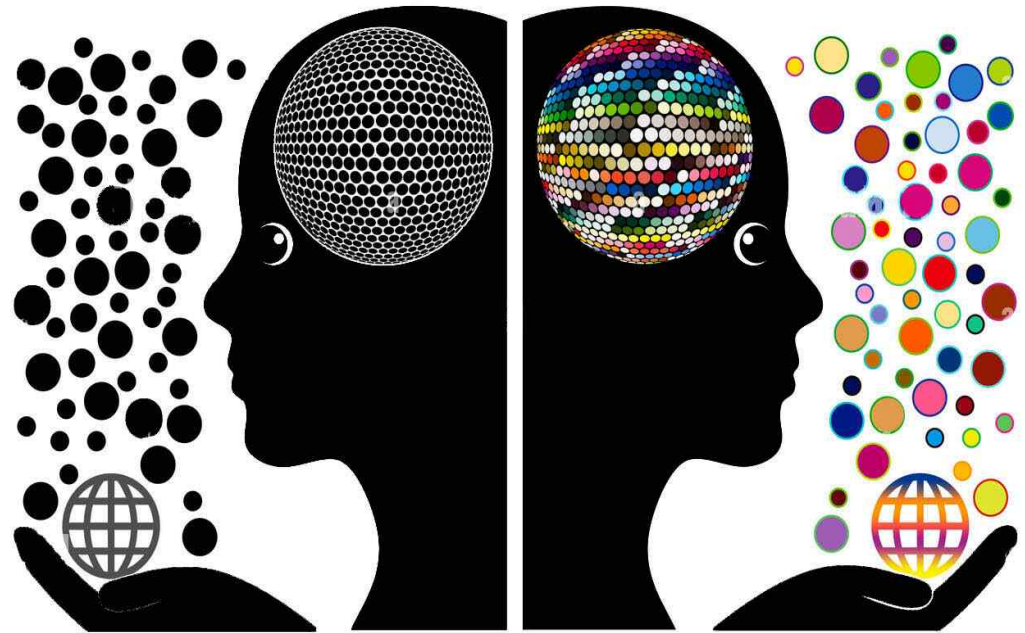
- **Technical skills**
technology
innovation
- **Communication skills**
negotiation
conflict resolution
- **Critical Thinking**
analytical thinking
problem-solving
decision making
- **Multitasking**
planning
time management
organization
- **Teamwork**
adaptability
flexibility
relationship building
- **Creativity**
attention to detail
- **Leadership**

entrepreneurs master those skills

Entrepreneurs are used to changes and dealing with complexity



This brings
them a
different
mindset and
skills



Entrepreneurship can instill transferable skills

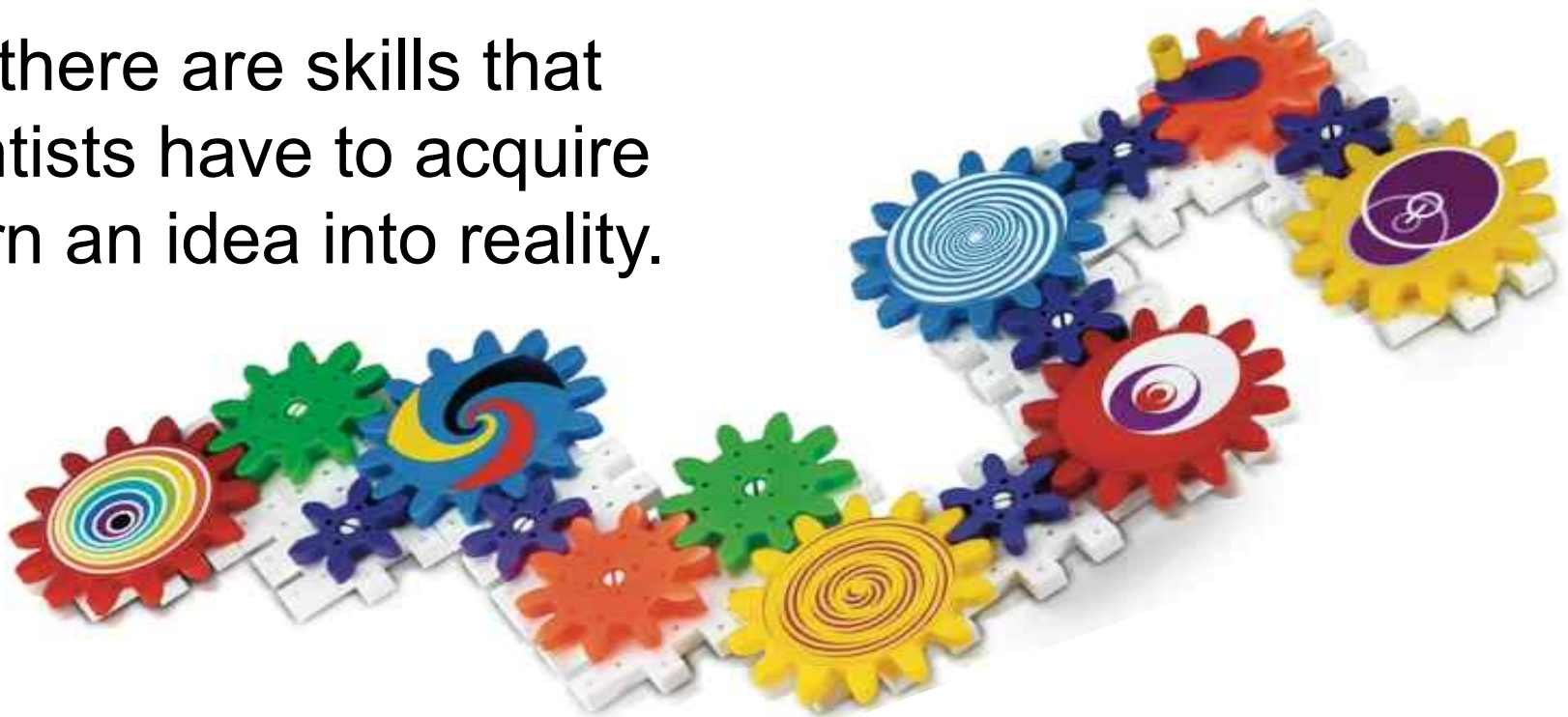
Observing the TVLP Institute program participants from more than 42 countries, we found a two-way path between employee and founder.

Entrepreneurship training generates development opportunities and brings career benefits to new venture founders and employees.



In particular, to people with a scientific-technical background due to **technology's important role** in any new venture project.

Still, there are skills that scientists have to acquire to turn an idea into reality.



Idea vs. Innovation

Innovation is the practical implementation of ideas that result in the introduction of new goods or services or improvement in offering goods or services.

(J. Schumpeter, 1934)



How to design an effective learning program?

During a five-year study, data were collected by providing a survey to our participants at the end of a training program.

Survey data were validated and enriched by casual interviews with participants and observations made during the programs.

The results are guidelines for industry leaders in HR development & learning and suggestions for an individual working on building a career in the tech industry.

Identified methods and tools

- The research includes 315 participants from several countries.
- Participant age is from 21 to 55.
- The data organization model is
 - (1) by geographical groups – to measure the impact of the environmental factors such as similar work attitudes, culture, and history across countries,
 - (2) by professional role, and
 - (3) by background – monitoring the influence of personal characteristics (i.e., education and job role).
- Participants evaluated each topic using a Likert scale, 1 (not interesting or not useful) to 5 (very useful).

Model: Geographical groups	Model: Professional Role	Model: Background
Europe (43%)	Founder/Business owner (30%)	Technical/ Scientific background (40%)
Asia (51%)	Executive/Senior manager (63%)	Business background (60%)
Anglo cluster (6%)	Jobholder (7%)	
TOTAL (100%)	TOTAL (100%)	TOTAL (100%)

Geographical clusters (validated by the literature) were used to guide the cross-cultural research sampling strategy and ensure adequate sampling of the cultural variability.

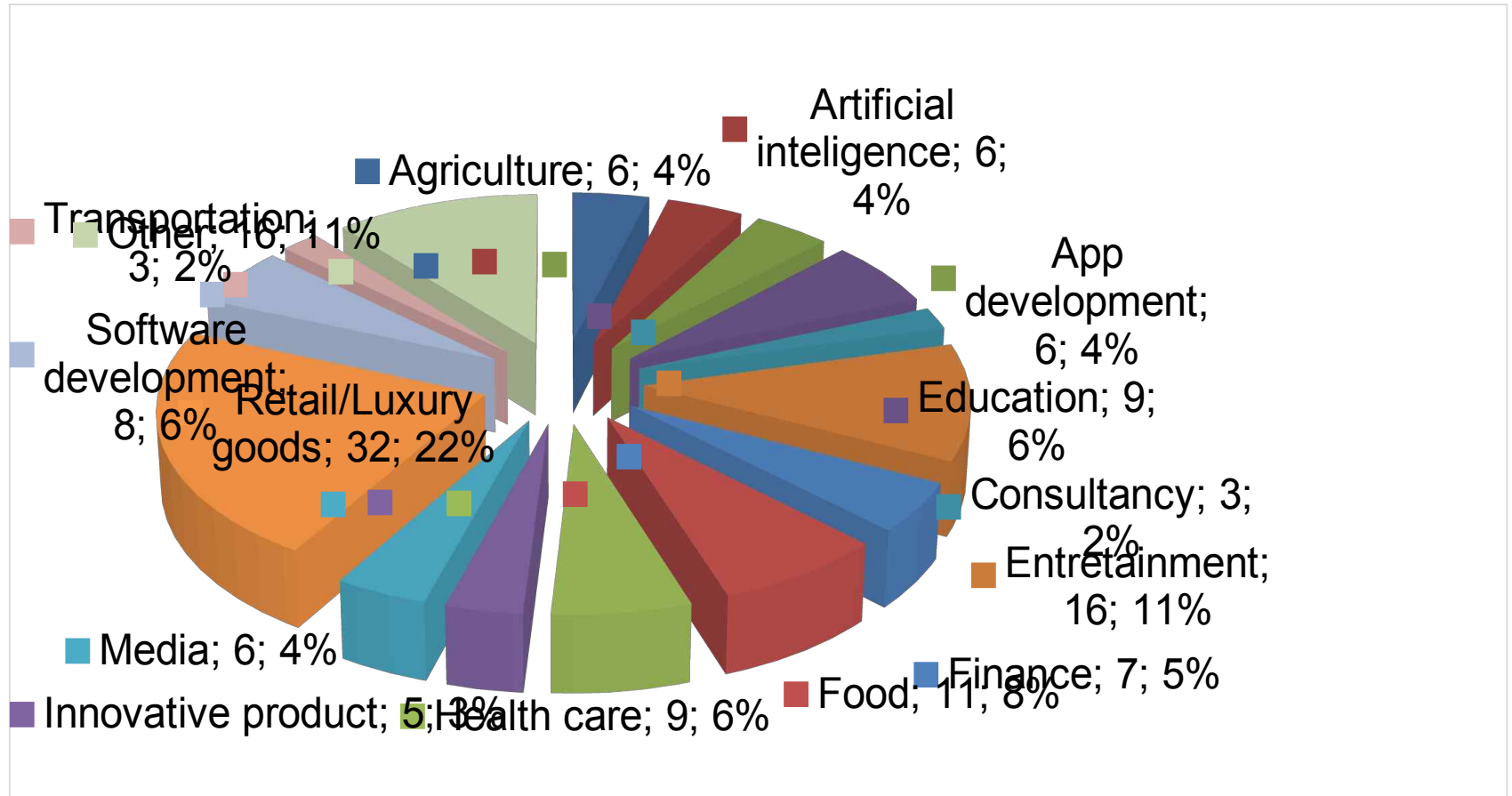
Background model explores the impact of technical v.s. business background.

Technical: science, technology, engineering, or mathematics disciplines

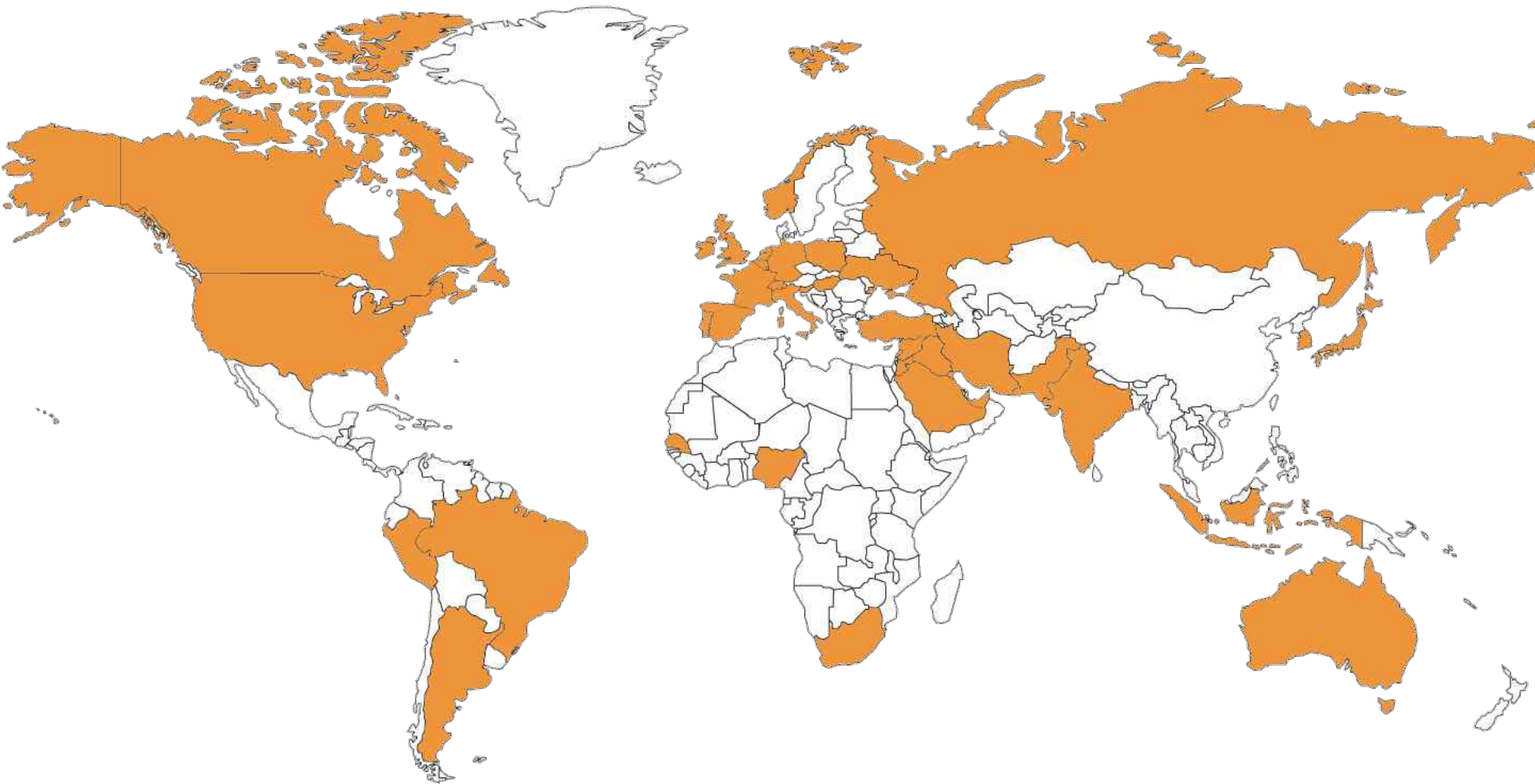
Business: accounting, economics, finance, management, marketing, human resource management.

Humanities and social sciences: not significant number of participants.

Industries



Countries



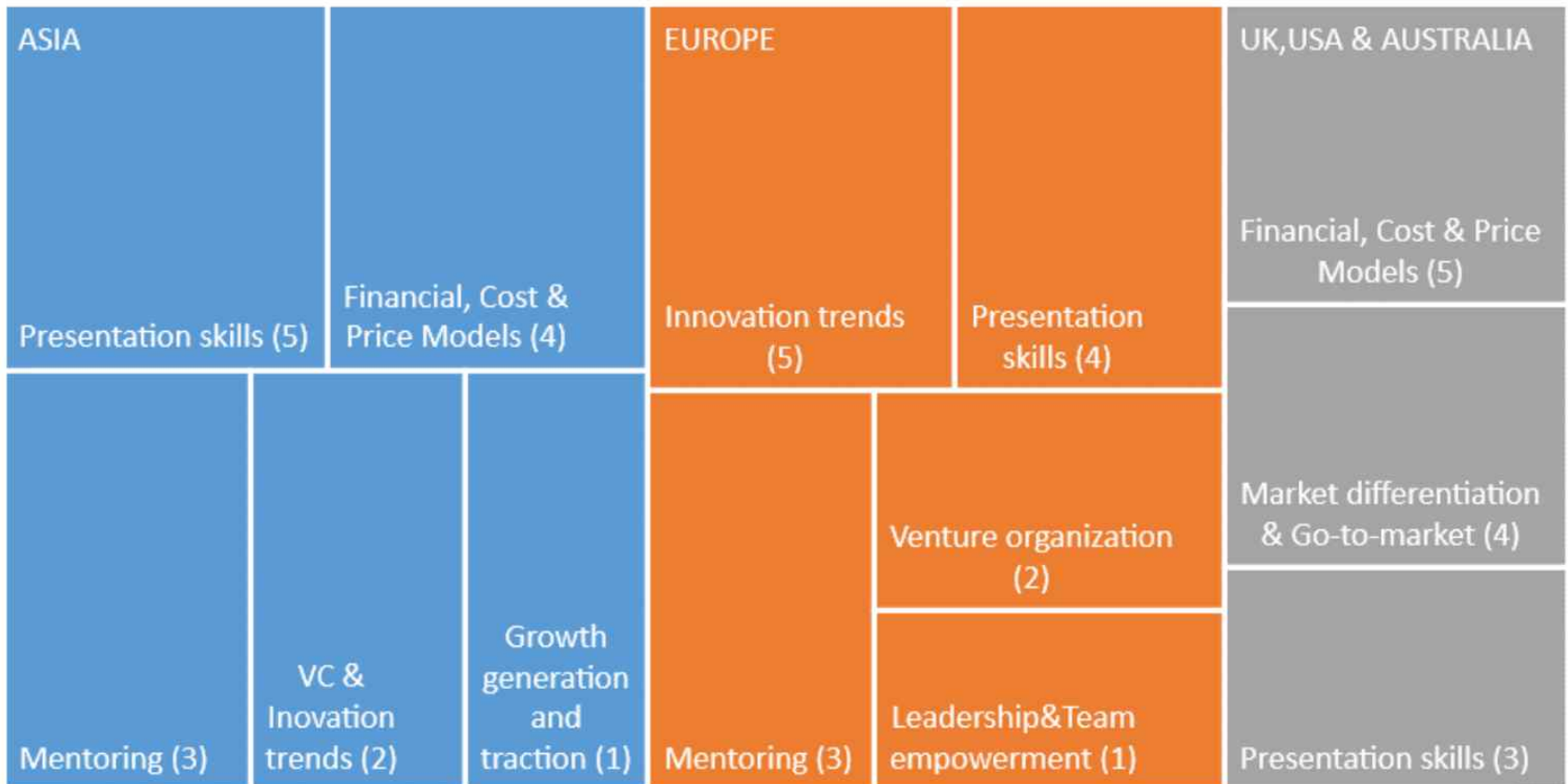
From 42+ countries

Results

Must have topics	VENTURE PROJECT PRESENTATION
	VENTURE ORGANIZATION
	MENTORING
Additional topics	FINANCIAL, COST & PRICE MODELS
	INNOVATION TRENDS
	MARKET DIFFERENTIATION & GO-TO-MARKET
	PROJECT, AGILE, AND LEAN MANAGEMENT AND METHODOLOGIES

The study investigated several topics identifying the most relevant topics for participants by using participant scoring

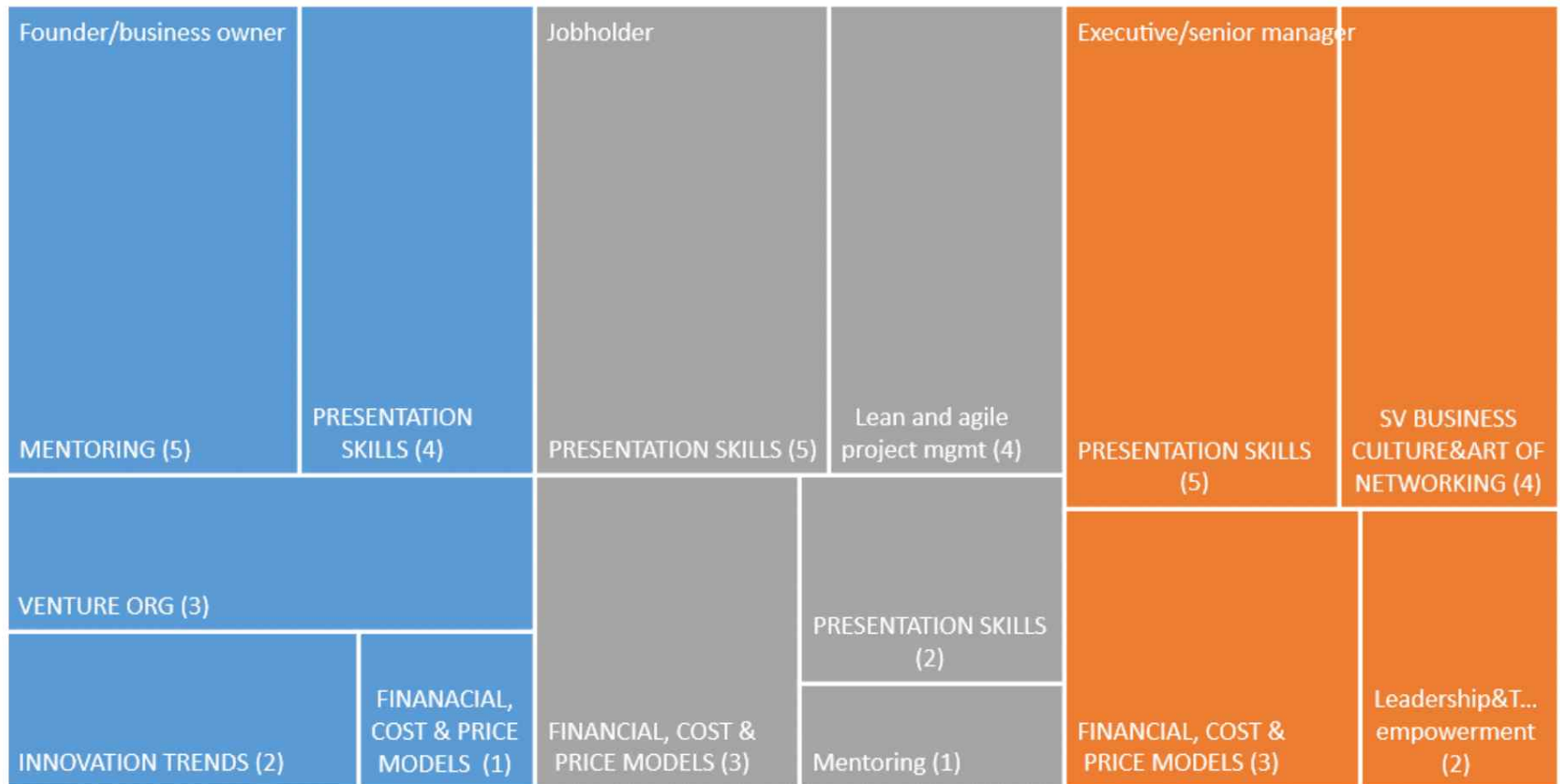
Data filtered by geographical group



Presentation skills: storytelling and speaker training.

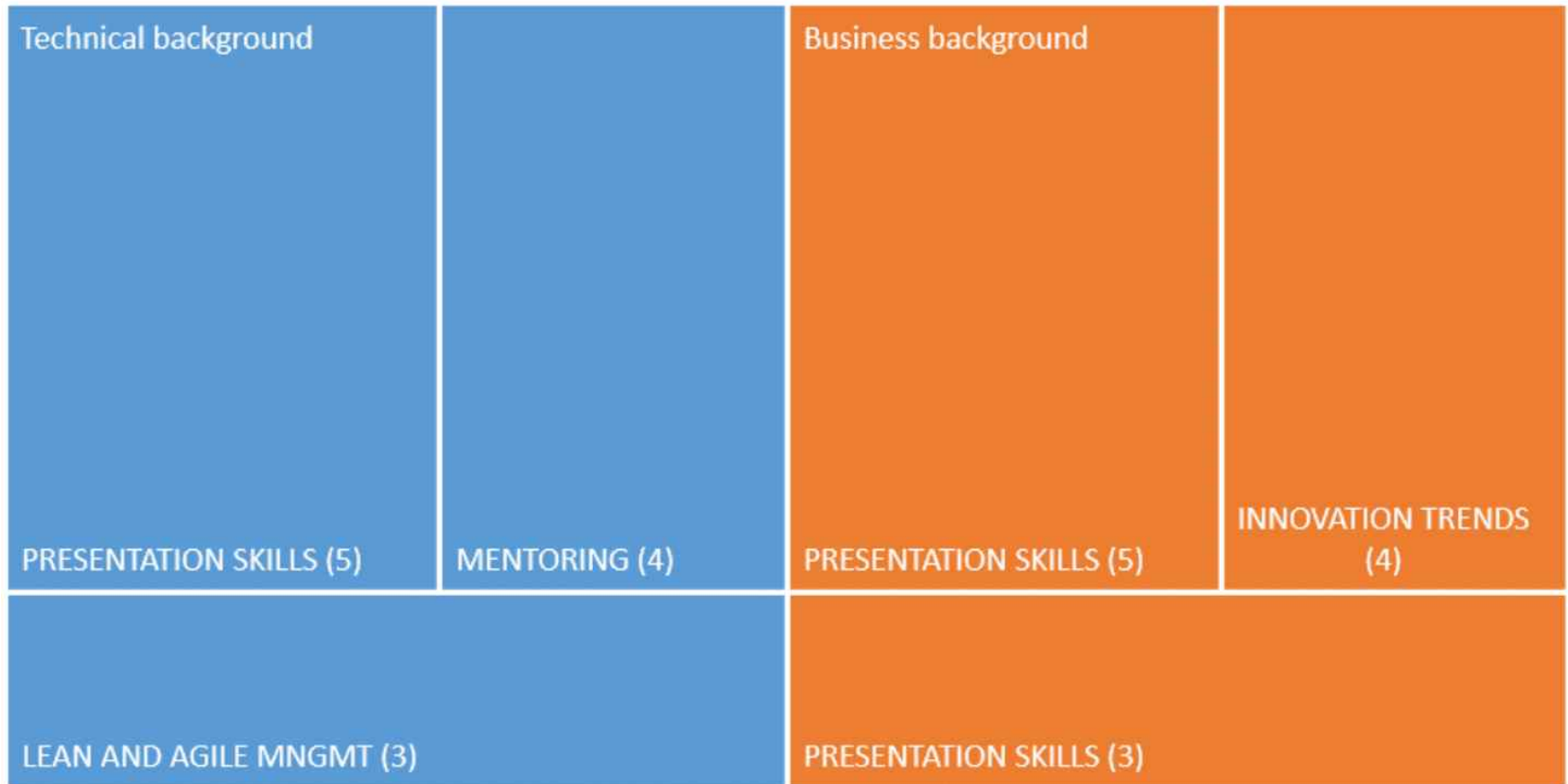
Mentoring activities: applied sessions guided by a mentor to go deeply applying the new knowledge to their daily challenges.

Data filtered by professional role



Founders mostly rate mentoring sessions where they can immediately impact their venture project. **Jobholders** are interested in sessions that illustrate how to organize a venture, including the impact on human resources (lean-agile methodologies, team motivation, leadership) and financial skills. **Executives and senior managers** want to learn more about business culture, networking, and presentation skills

Data filtered by background



All highlighted presentation skills (pitch, storytelling).

THANK YOU

Dr. Bruno Iafelice
bruno@tvlp.co
www.TVLP.co

