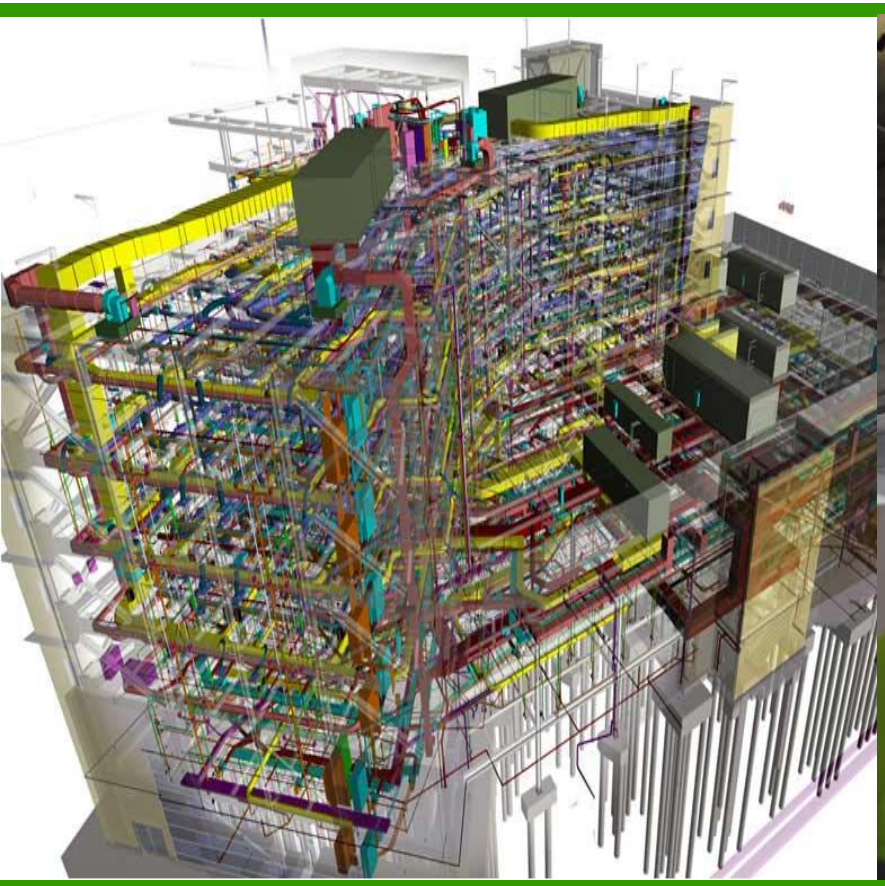
THE GOOD, THE BAD AND THE SCARED

Empowering Entrepreneurs to Digital Transformation



EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

SME DIGITAL: SUPPORT AND FUNDING PROGRAMME (2017 – 2018)

Backgrounds and goals…

- Large companies already address “Industry 4.0”:
  SMEs are often in the role of observers.
- Lack of information and awareness:
  More attention to opportunities & challenges.
- Lack of know-how and time:
  Enhanced support for the digital development of companies.
- **SME DIGITAL:**
  The Austrian „Digitalisation-Initiative” for SMEs

Scope of support and funding…

- Online Status Check:
  Which is the actual degree of digitalisation?
- Analysis of Potential (for-free):
  What should change?
- Consulting, 50% funding:
  How to achieve the goals?
- Training for entrepreneurs and employees, 50% funding:
  Fostering Skills - Empowering People

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

HOW TO DEFINE DIGITAL TRANSFORMATION?

Entrepreneurs select 6 from 50 topic cards…

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

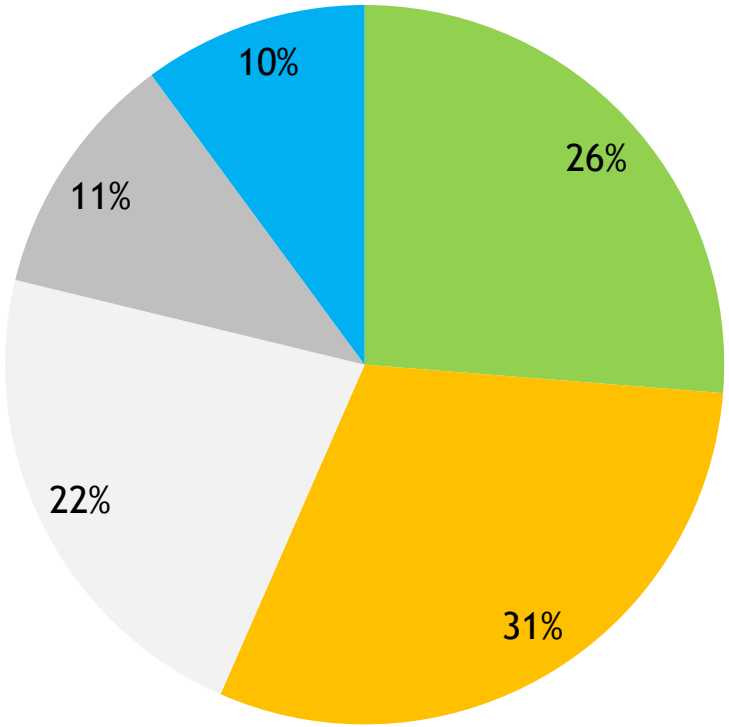
BUILDING & HOUSING: TOPICS SELECTED BY ENTREPRENEURS

Overview of findings…

- Evaluation period:
  09/2017 - 10/2018
- Companies evaluated:
  Total: 3,438; Building & Housing: 352 = 10.24 %
- Trends selected:
  24,018; Building & Housing: 2,392
- Ratio Chances vs. Risks:
  81.9 % vs. 18.1 %

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

BUILDING & HOUSING: TOPICS SELECTED BY ENTREPRENEURS



Measures planned

- **Customer relations and marketing** is the dominant topic with **31 %.**
- **25 %** of the companies thinks about the **optimisation of products and services.**
- **22 %** of the companies, improvement of **procedures and processes** is an issue.
- Only **11 % Business model** and value chain
- 10 % Employees and cooperate culture

Source: Evaluation KMU DIGITAL, Potential Analyses & Digital Roadmap

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

BUILDING & HOUSING: TOP CHANCES OF DIGITALISATION

CHANCE	Σ 352	%
Digital Presence	135	38 %
Smart Houses	133	38 %
CRM-Systems	124	35 %
Document Management	104	30 %
Augmented Reality	103	29 %
Social Media	102	29 %
Testimonials	88	25 %
Ambient. Assist. Living	73	21 %
Training	71	20 %
Generation 50+	67	19 %

Source: Evaluation KMU DIGITAL, Potential Analyses

BUILDING & HOUSING: TOP RISKS OF DIGITALISATION

RISK	Σ 352	%
Data Protection	134	38 %
Smart Houses	20	6 %
Document Management	19	5 %
Digital Presence	16	5 %
Training	15	4 %
CRM-Systems	15	4 %
Shy Tech	13	4 %
Social Media	13	4 %
Urban Farming	12	3 %
Augmented Reality	11	3 %

Source: Evaluation KMU DIGITAL, Potential Analyses

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

BUILDING & HOUSING: TOP TREND NOMINATIONS

TREND	Σ 352	%
Generation 50+	72	20 %
Shy Tech	65	18 %
Client Cooperation	40	11 %
Business Model Innovation	37	11 %
Artificial Employees	18	5 %

Source: Evaluation KMU DIGITAL, Potential Analyses

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

WHICH TRENDS ARE BUILDING CONTRACTORS INTERESTED IN?

93 % agree that digitalisation will affect all processes…

- Mobility (apps, data)
- IT Security
- Social Networks
- Cloud Computing
- Building Information Modeling (BIM)
- Virtual Project Space

Source: Goger, G; (2018): Potenziale der Digitalisierung im Bauwesen, Forschungstelle TU-Wien, BMVIT/WKO Bau, Wien.

KMU DIGITAL Digital Roadmap

22 % actually planned measures …

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

ATTITUDES TOWARDS DIGITAL COMPETENCES

SMEs have huge demand for training…

Results concerning digital competences:

1 of 3 SMEs rated digital competences of the employees as sufficient.

In every 5th company changes are rejected.

15 % of entrepreneurs consider their own digital competences as sufficient.

Findings:

2/3 SMEs do not rate digital competences of their employees as sufficient.

85 % of entrepreneurs consider their own competences as insufficient.

Source: Evaluation KMU DIGITAL, Status Check

KMU DIGITAL
www.kmudigital.at

KMU DIGITAL Digital Roadmap

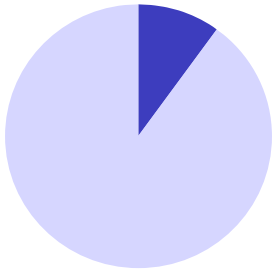
10 % actually planned measures

measures …

ACTUAL STUDIES & RESEARCH ON DIGITAL COMPETENCES

40 %

of jobs in Austria will **change drastically** due to **automation**



12 %

of all workplaces are **threatened** by **automation**

Source: OECD (2016): "Automation and Independent Work in a Digital Economy", Policy Brief on The Future of Work, OECD Publishing, Paris.

ACTUAL STUDIES & RESEARCH ON DIGITAL COMPETENCES

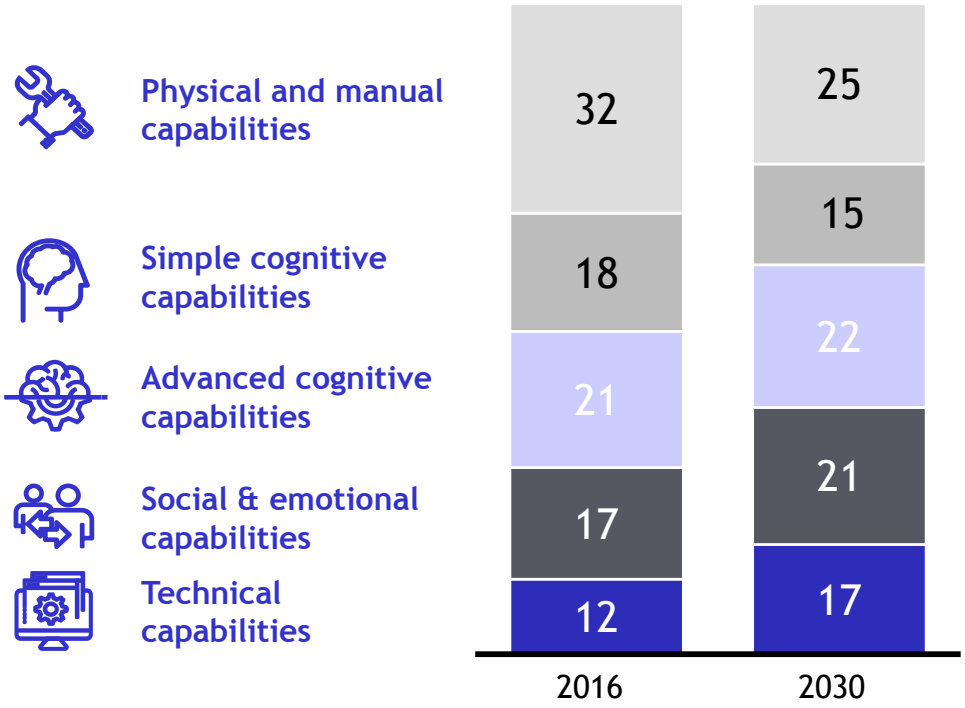
Changed requirements arise from a strongly further developed professional world…

- **Career profiles** will change radically and require **changed** - sometimes completely new – **skills**.
- While manual physical work and simple cognitive tasks are becoming increasingly automated, but still remain an essential factor, **digital, emotional, interpersonal skills** are becoming increasingly important.
- How exactly the activities and skills required will change needs to be **specifically identified within each industry**.

Source: McKinsey on behalf of WKO (2019): "Foresight Bildung der Zukunft 2030 Automation"

ACTUAL STUDIES & RESEARCH ON DIGITAL COMPETENCES

Strong shifts in required capabilities expected by 2030 (Austria)…



- **Simple physical and cognitive cabilities** tend to decline by 2030, but remain the largest factor.
- At the same time, there is an **increasing need for interpersonal tasks and social skills**, as well as a considerable need for **digital skills** in all occupations.

Source: McKinsey on behalf of WKO (2019): "Foresight Bildung der Zukunft 2030 Automation"

EMPOWERING ENTREPRENEURS TO DIGITAL TRANSFORMATION

ACTUAL STUDIES & RESEARCH ON DIGITAL COMPETENCES

Professional profiles will change drastically

Construction Supervisor

- Instructs personnel on the construction site.
- Carries out quality control and initiates countermeasures if necessary.

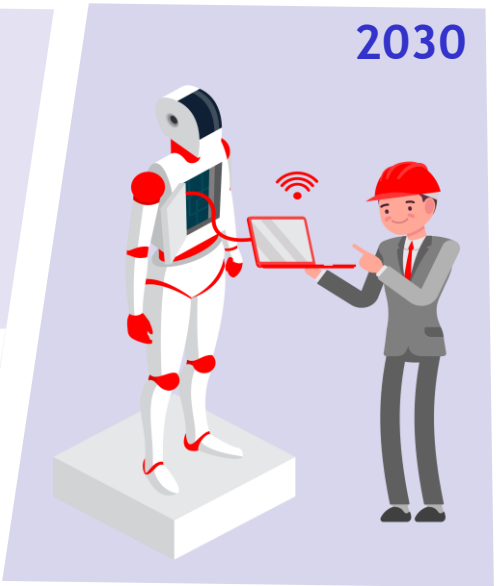
3D Print Specialist

- Greater focus on advising clients and responding to individual needs.
- Construction process is strongly supported e.g. by concrete 3D printers and autonomous construction machines.

Maintenance Technician

- Services machines.
- Diagnoses malfunctions.
- Repairs machines.

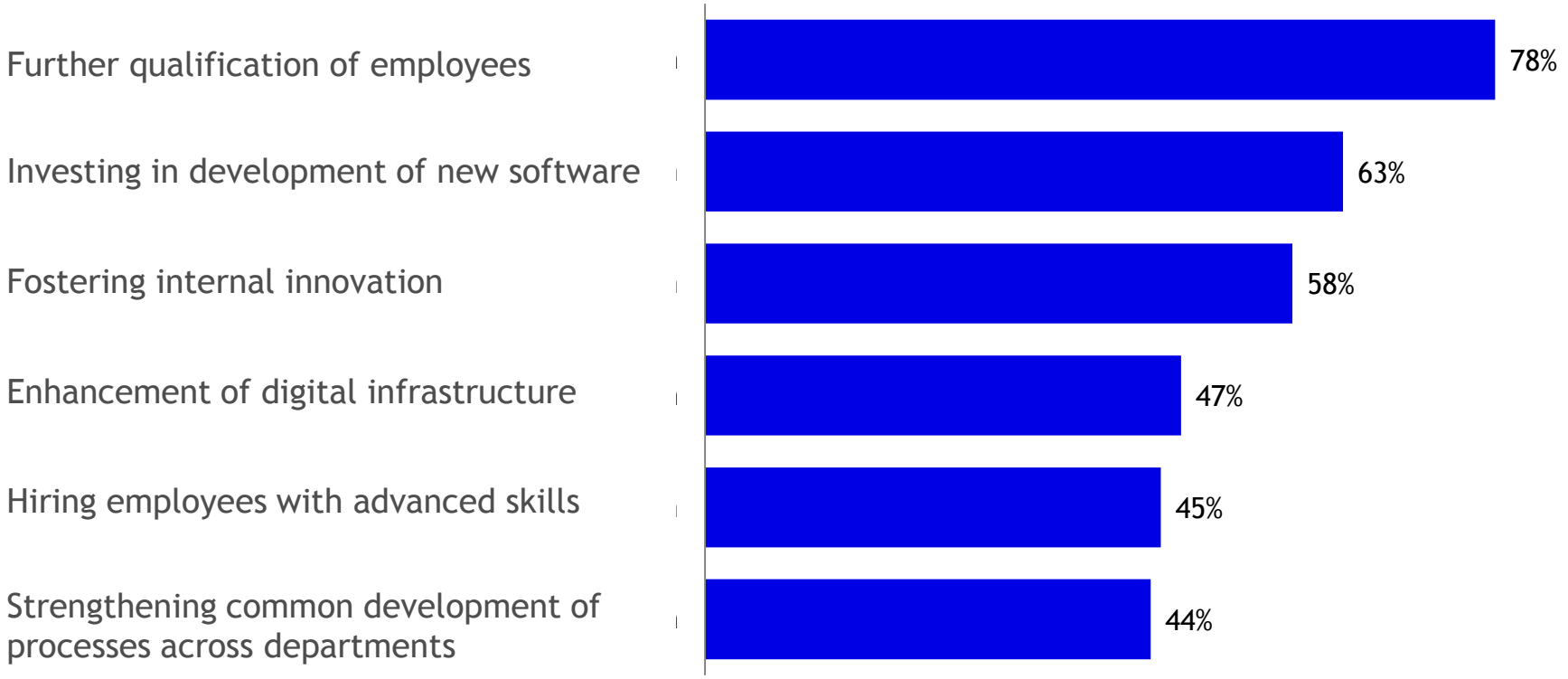
Robotics Technician



- Evaluates telemetry of autonomous robots.
- Diagnoses malfunctions in mechanics and AI/algorithms.
- Repairs hardware and software.

DIGITAL ROADMAP FOR ENTREPRENEURS

Recommended measures to face challenges…



Source: Evaluation KMU DIGITAL, Digital Roadmap

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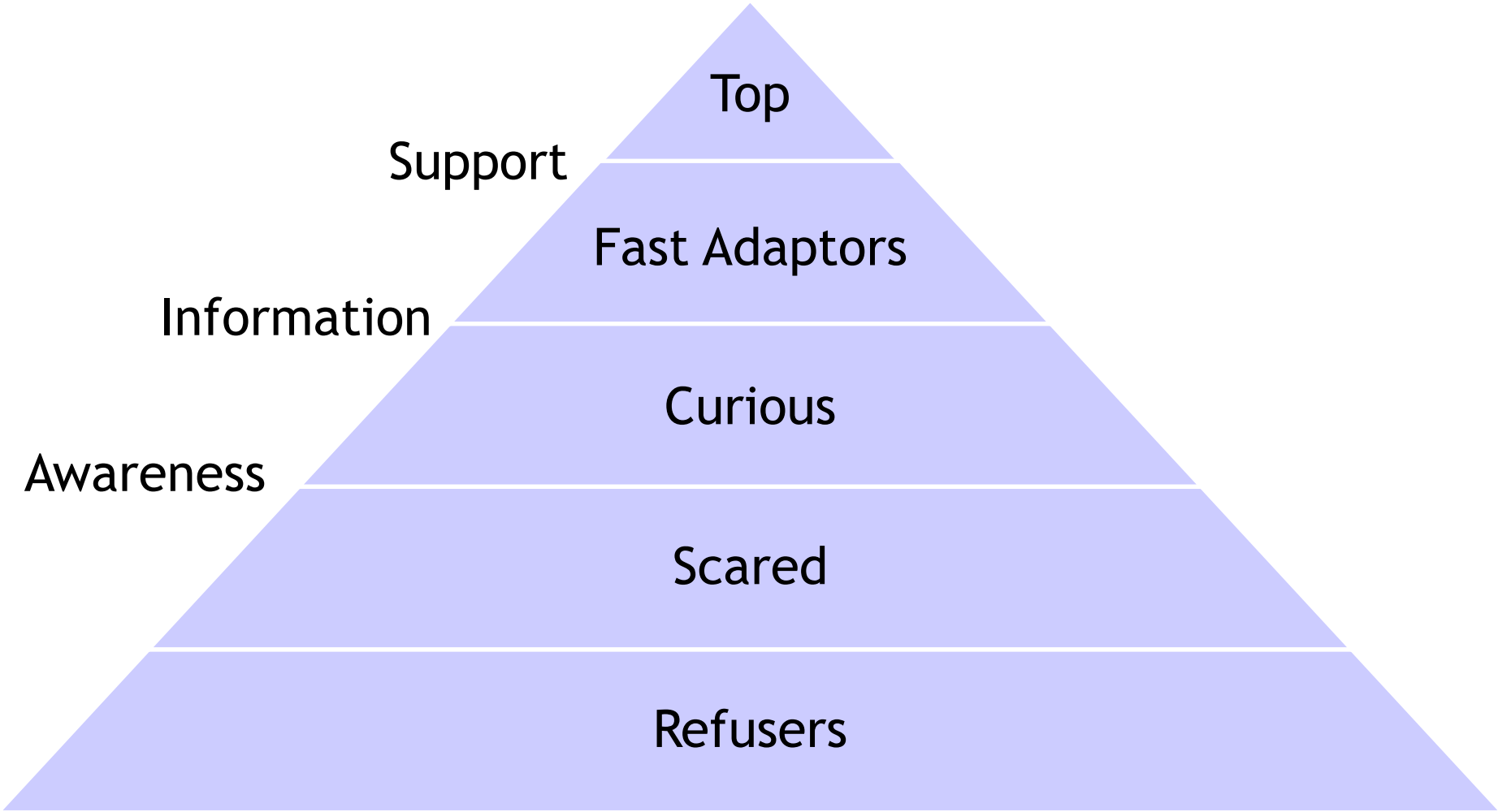

Thank you very much for your attention !

Claudia Scarimbolo