

# Worldwide welder shortage and approaches to overcome the crisis

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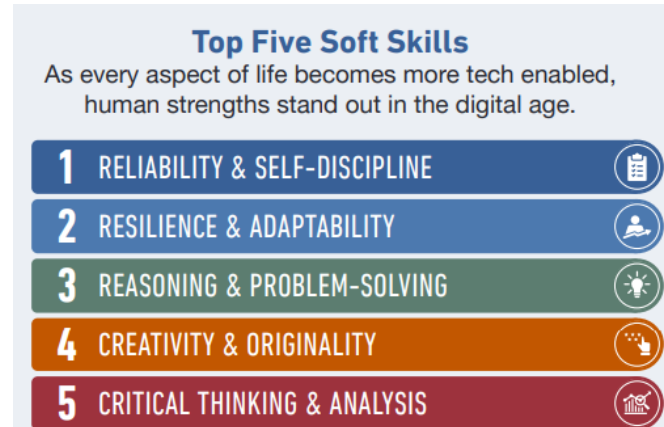
# Summary

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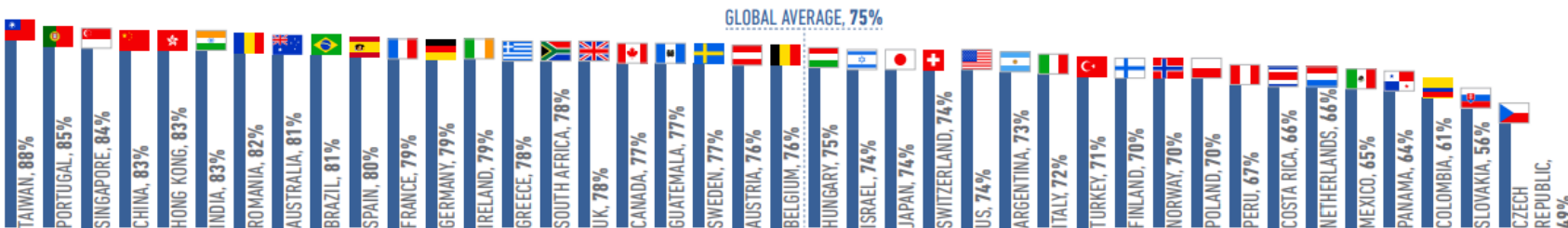
# Current situation: Talent shortage – an overview

## Talent Shortages Over Time

From manufacturing to marketing, transport to trade, employers cannot find the people they need with the right blend of technical skills and human strengths.



## Talent Shortages Around the World



Source: Manpower Group Survey 2022

# Current Situation: Main drivers for talent shortages

- Attractiveness of specific jobs for skilled workers
- Working conditions
- Image of the profession: dirty, dangerous and physically demanding
- Salary
- Parents and even educators view skilled work as a fall-back career, something undesirable for their kids to consider
- Retiring Baby boomers without being replaced by younger workers

# Current situation: Threats

- By 2030 a global human talent shortage of more than 85 million people could result in about \$8.5 trillion in unrealized annual revenues (Korn Ferry)
- According to AWS: until 2024 -> approx. 400`000 skilled welders will be missing in the U.S.
- No concrete figures for Europe, but before COVID-19 -> 60`000 jobs were published for welders in Europe
- Emmigration of work force
- Communication problems lead often to quality issues
- Delay in production time
- Closure of traditional companies
- Welders with poor practical or professional experience might lead to quality issues
- **We need to react now!**



# Study: Motivation of young talents for vocational education and training in the welding technology - schools, training centres and employers

- 8 out of 10 report difficulties in finding apprentices

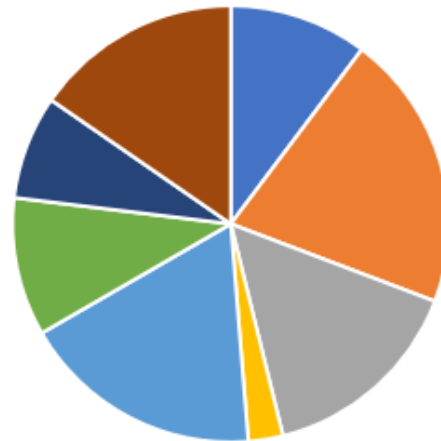
## Reasons:

- young people do not encounter metal in primary or secondary school
- the profession welder does not have the best image
- during the lockdown it was difficult to find trainees
- generation with low birth rates
- little interest in technical professions
- People mostly want to study, no major interest in practical education
- no major political willingness to push practical education
- practical jobs are not very respected in our society
- the salaries aren't attracting enough
- young people don't know enough about the welding industry and what kind of work they can do there

# Study: Motivation of young talents for vocational education and training in the welding technology - schools, training centres and employers

## Main factors for motivating young people:

Factors that could motivate young people to choose a vocational education in welding technology



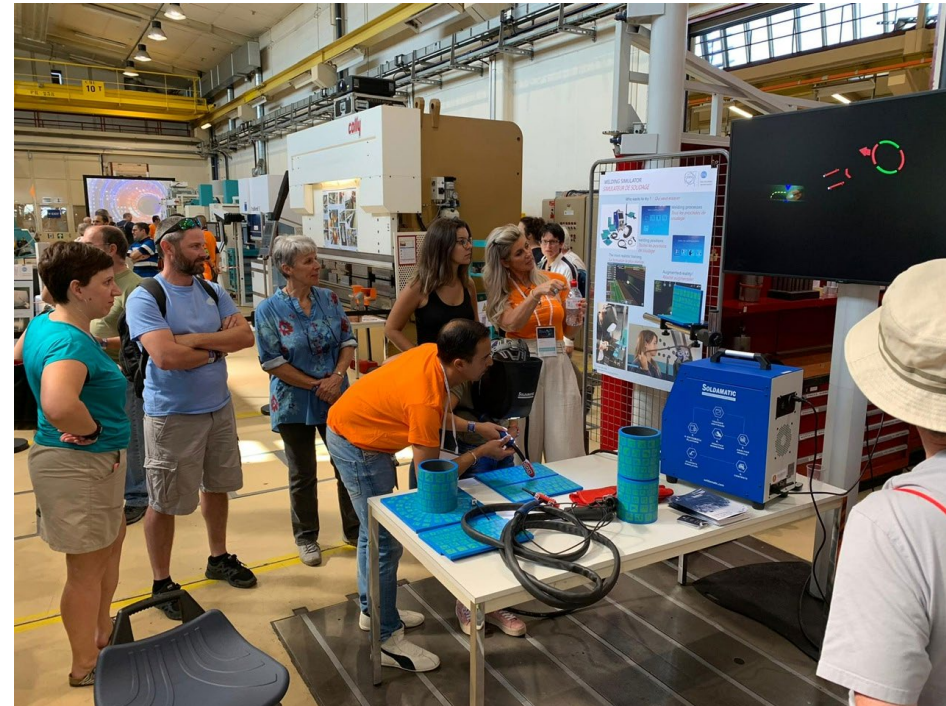
- Motivation to create something tangible, lasting
- Earning opportunities
- Interesting training opportunities
- Parents who support this education
- Opportunities on the job market
- Flexible working hours
- Interesting employer
- Competent and motivated trainers / teachers



# Study: Motivation of young talents for vocational education and training in the welding technology - schools, training centres and employers

## Measures taken to attract young talents:

- Roadshows in schools
- Job fairs with welding simulators
- Weld skills competitions (such as WorldSkills)
- Trial apprenticeships
- Advertising on social media





# Study: Motivation of young talents for vocational education and training in the welding technology - young talents in training

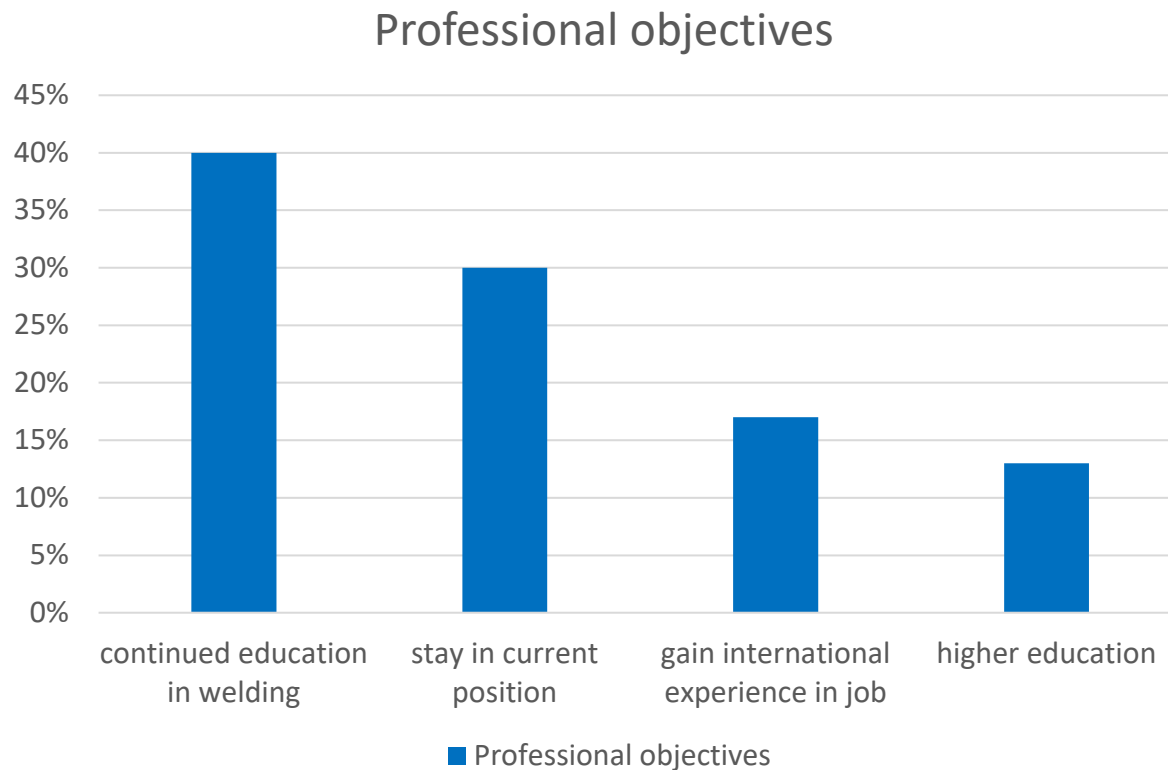
Main reasons they chose a training within welding technology:

- Through a trial apprenticeship
- Relatives / friends work in this field
- They like working with metal
- Always wanted to do something crafty
- Because it brings a lot of variety and is fun
- Because it is a very diverse profession
- Got to know the profession at a career fair and found it interesting



# Study: Motivation of young talents for vocational education and training in the welding technology - young talents in training

## Professional objectives of the talents:

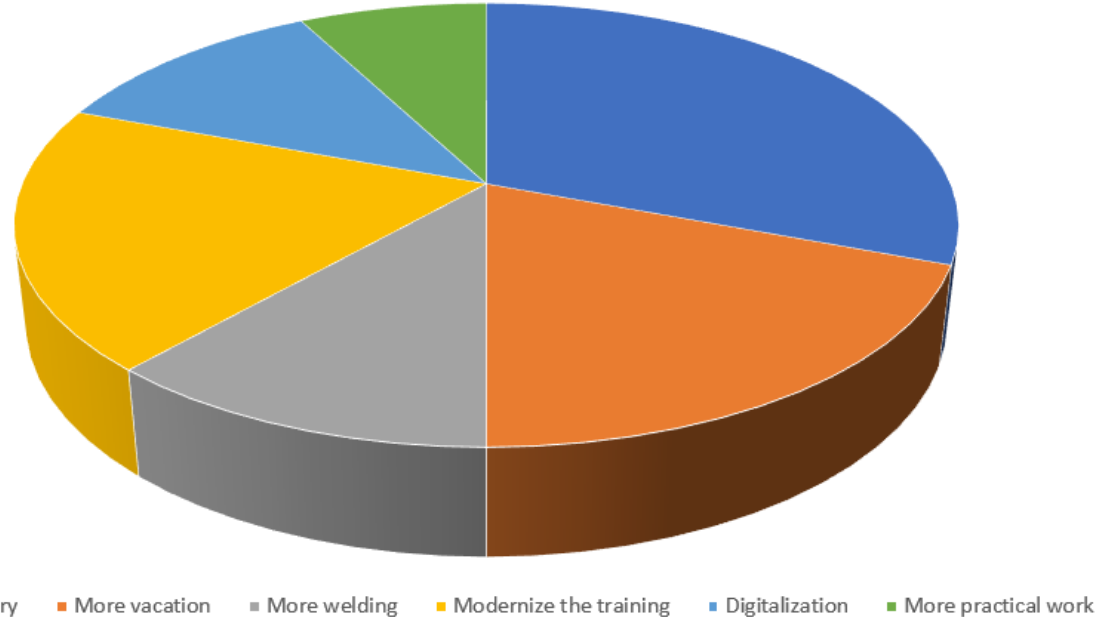


## Careers mentioned:

- International Welding Specialist (IWS)
- Metal work designer
- Shop floor manager
- Welding engineer
- Teacher
- Project manager

# Study: Motivation of young talents for vocational education and training in the welding technology - young talents in training

General improvements in current training

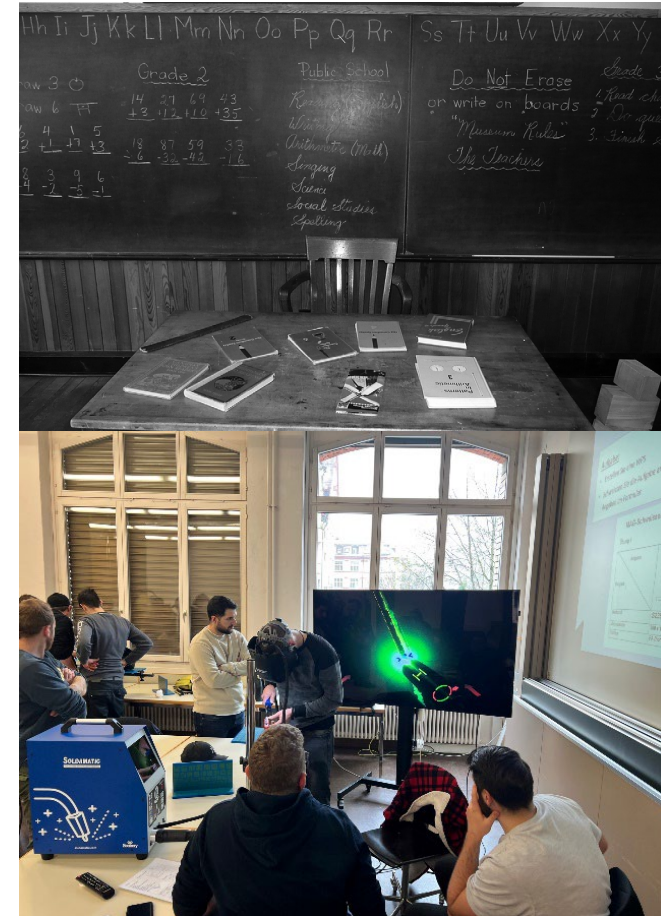


1. More salary
2. More vacation
3. More practical welding
4. Modernize training
5. Digitalization
6. More practical work in general

# Study: Motivation of young talents for vocational education and training in the welding technology - young talents in training

Improvements in current training – school / training center:

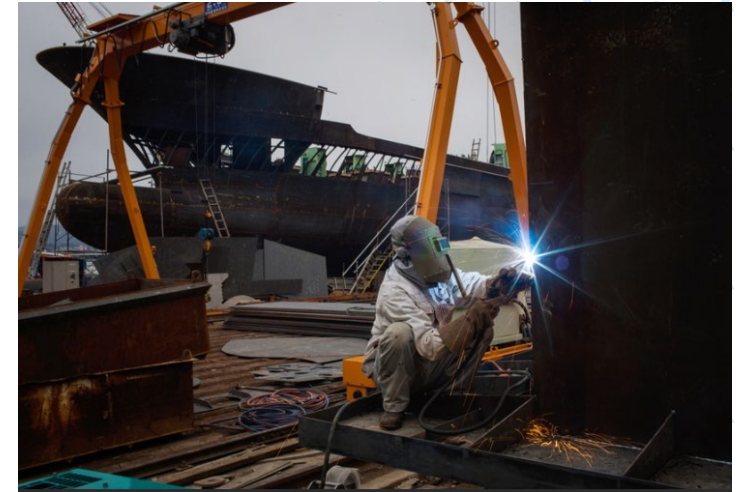
- More practical welding
- Modern teaching materials
- Up-to date infrastructure
- Comprehensive explanation of topics
- More digitalization
- Lack of motivated and socially competent teachers
- Presentation of projects from the industry



# Study: Motivation of young talents for vocational education and training in the welding technology - young talents in training

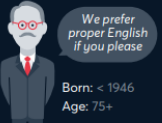




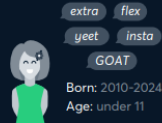






























How to attract young talents in future:

- Higher salary
- Events with welding simulators
- Social media made by young talents for young talents
- Integration of metal in handicraft lessons already in primary school
- Show projects that apprentices have created
- Inform parents and teachers about the career opportunities in the welding industry
- Present interesting projects from various companies
- Inform about the possibilities in further education



# Conclusion – Know the target group

Who do we want to attract? A generation conflict?

CATEGORY	BUILDERS	BABY BOOMERS	GENERATION X	GENERATION Y	GENERATION Z	GENERATION α
Name origin	The generation that built the economy, infrastructure and society after the Depression and WW2.	The post-war baby boom that created an economic boom.	Ironically named after Douglas Coupland's anti-label moniker - "just call us X". Note: spans 15 years.	The letter that followed X, also known as Millennials.	Following from Y, the end of an era and the end of a millennium.	Coined by McCrindle to define the start of a whole new era. Follows scientific naming (Greek alphabet).
Slang terms	 We prefer proper English if you please Born: < 1946 Age: 75+	 Be cool Peace Groovy Way out Born: 1946-1964 Age: 56-74	 Dude Ace Rad As if Wicked Born: 1965-1979 Age: 41-55	 Bling Funky Doh Foshizz Whassup? Born: 1980-1994 Age: 26-40	 lit fam bae slay yass queen Born: 1995-2009 Age: 11-25	 extra flex yeet insta GOAT Born: 2010-2024 Age: under 11
Social markers	World War II 1939-1945	Moon landing 1969	Stock market crash 1987	September 11 2001	GFC 2008	Trump/Brexit COVID-19 2016 2020
Iconic cars	 Model T Ford Final, 1927	 Ford Mustang 1964	 Holden Commodore 1978	 Toyota Prius 1997	 Tesla Model S 2012	 Autonomous vehicles 2020s
Iconic toys	 Roller skates	 Frisbee	 Rubik's cube	 BMX bike	 Folding scooter	 Fidget spinner
Music devices	 Record player LP, 1948	 Audio cassette 1962	 Walkman 1979	 iPod 2001	 Spotify 2008	 Smart speakers Now
Leadership styles	 Controlling	 Directing	 Coordinating	 Guiding	 Empowering	 Inspiring
Screen content	 Cinema	 TV	 VCR	 Internet	 Device	 Streaming

Millennials:

- first generation to enter the workforce in the new millennium
- Generation Y
- people born between 1981 and 1996



# Conclusion – Know the target group

What is the perception of the older generation with regards to the millennials?

*“They are rude, impatient and selfish.”*

- Taking "selfies" all the time
- Sticking to their mobile phones
- Sharing photos of their lunch on social media
- The young generation is of no use

*They are the generation that nobody understands –  
or maybe they are the generation that nobody  
wants to understand?*



# Conclusion – Know the target group

What do millennials really pay attention to?

- Millennials want to live a fulfilled life
- They are not afraid to pursue their passion
- They refuse to accept anything else they don't believe in. Projects need to be in line with what Millennials believe in. This attitude is at the heart of the workplace.
- A Millennial cannot be excited about work that does not interest them. The work should:
  - be something they believe in
  - something that challenges or inspires them

*Millennials want to influence the world!*

# Conclusion – Know the target group

Millenials want:

- Enthusiasm for a job more important than salary
- Earn money with a meaningful job
- A purposeful work
- Work that contributes to a greater purpose
- Millennials value creativity and community more than exclusivity and status
- They work as a team to achieve the best possible results
- They are happy to work with anyone as long as they can get the job done

# Conclusion – what we can do

*“Progress, value change and transformation are happening. We should courageously embrace new ways of thinking, living and working.”*

- ✓ **Meaningfulness:** we need to make sure that the young generation understands the sense of our business
- ✓ **Passion:** let`s be passionate about our industry and what great things we do
- ✓ **Creativity:** show how creative our business can be
- ✓ **Community:** we need to be a great community and welcome newcomers with respect and enthusiasm

# Conclusion – what we can do

*Keep your current workforce on board and make your company a wonderful place to work!*

## Questions to ask yourself:

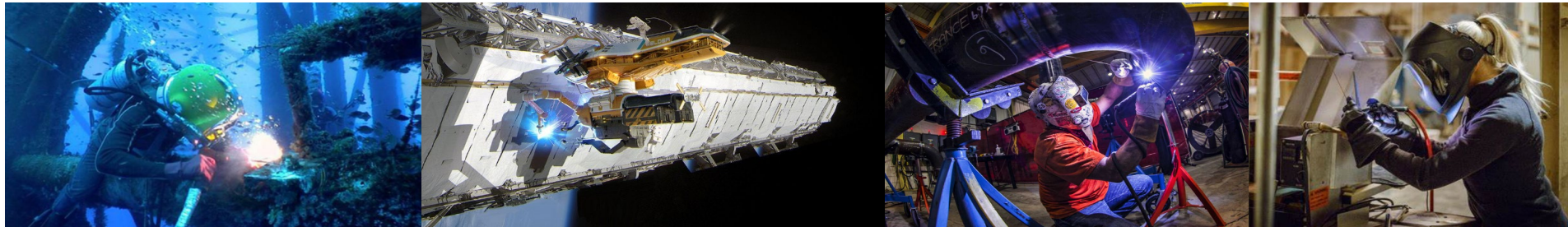
- Would you like to work as a welder in your company?
- Do you know your staff?
- Do you have a continuous improvement process, where welding staff is active
- What about safety?
- Could the salary system be improved? For example create a win-win situation by a bonussystem that motivates for best performance with regards to quality, timeliness, safety...
- Are your welders well integrated team members and recognized for their contribution to the company`s success?

# Conclusion - what we can do

- Improve existing educational methods by implementing modern teaching methods, such as: group tasks, simulations, excursions, meetings with experts, working on complex issues and solving problems, practical work for real production
- Include digital education of both theory and practical welding training through digital welding training solutions
- Well trained teachers, also trained in soft skills and able to motivate young professionals to grow to their excellence
- Improve image of welding, through social media and young ambassadors, by showing opportunities, no risk of unemployment, possibility to work abroad, be proud to be a welder and to reach out also for parents
- Attract women to welding by female ambassadors
- Implement practical work with metal already in primary and secondary school
- Build social recognition in general for practical workforce
- Improve earning opportunities and conditions of employment (for example flexible work time, balance between family and profession/work, ...)

# Conclusion - what we can do

- Let`s be emotional, proud, different, modern and loud about our great industry
- We need to build an effective talent strategy
- Cross-industry / country collaboration is needed



***“It is not enough to know - one must also apply.”***

***It is not enough to want - one must also do.”***

*Johann Wolfgang von Goethe*