EWF

European Federation for Welding, Joining and Cutting

Societal Challenges – Training & Eductaion –

H2020 Goals & Goals for 2030

5th Joining Sub-Platform GA Meeting

20 November 2015

Brussels , BELGIUM

Training and Education Outline

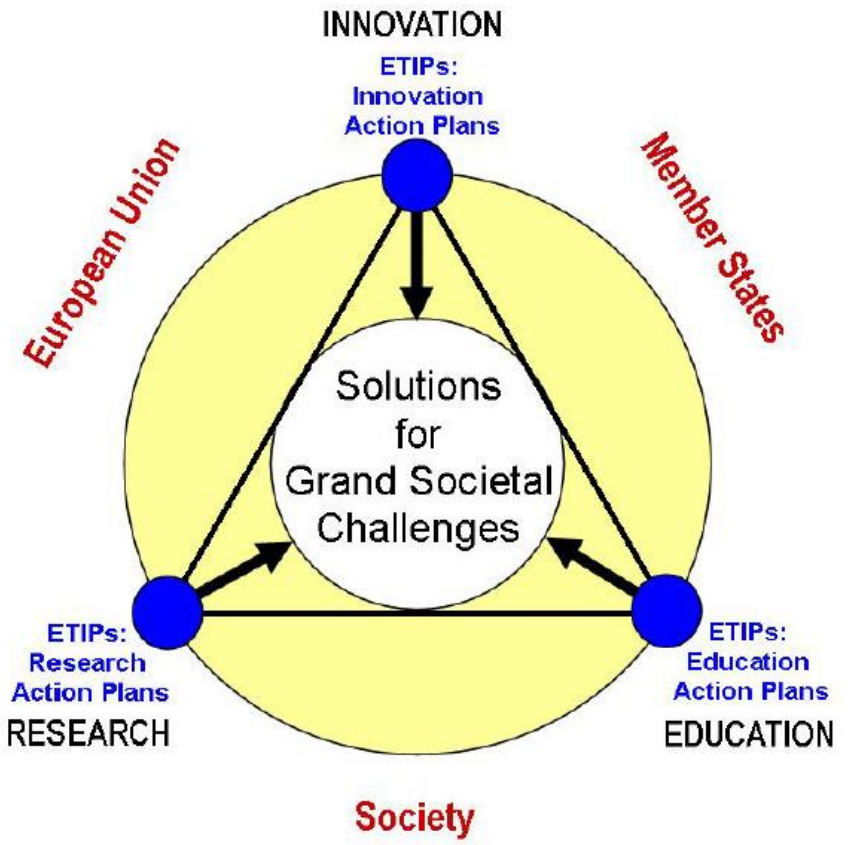
- **Why is Education and Training important in achieving the European objectives?**

- What is future of Training and Education in Europe?

Training and Education in the Innovation chain

In 2009 a report by the European Commission identified the steps that the ETP community, the Commission and Member States should take to address Europe's societal challenges:

- focus efforts more directly on societal challenges and on developing products and services for a sustainable future;
- help to unite all relevant forces across Europe in working towards solutions for societal challenges;
- take all three elements of the knowledge triangle into account -**education**, research and innovation - and specifically tackle the complete innovation chain.

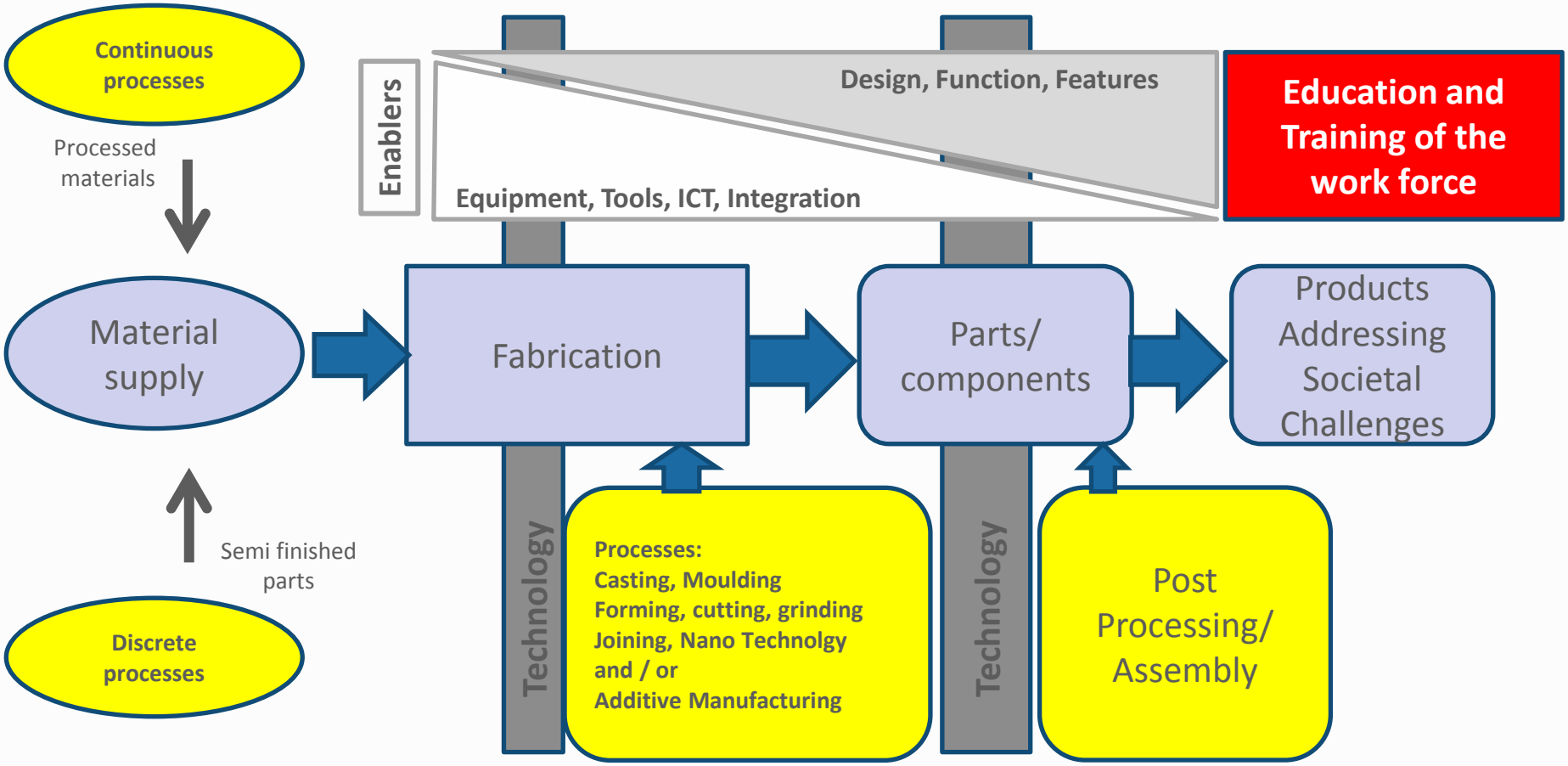


And this steps are still needed!!!

Training and Education Societal Challenges



Education and Training in the Manufacturing Flow Diagram



Training and Education and the TRL



Training and Education

Reach EU Industrial Target

- **Growing to a sustainable and job-rich future**
- **Industry to approach 20% of GDP 2020**
- **Increase trade in goods in the internal market to 25% of GDP by 2020**



In order to achieve these goals Europe needs well trained and educated workers.

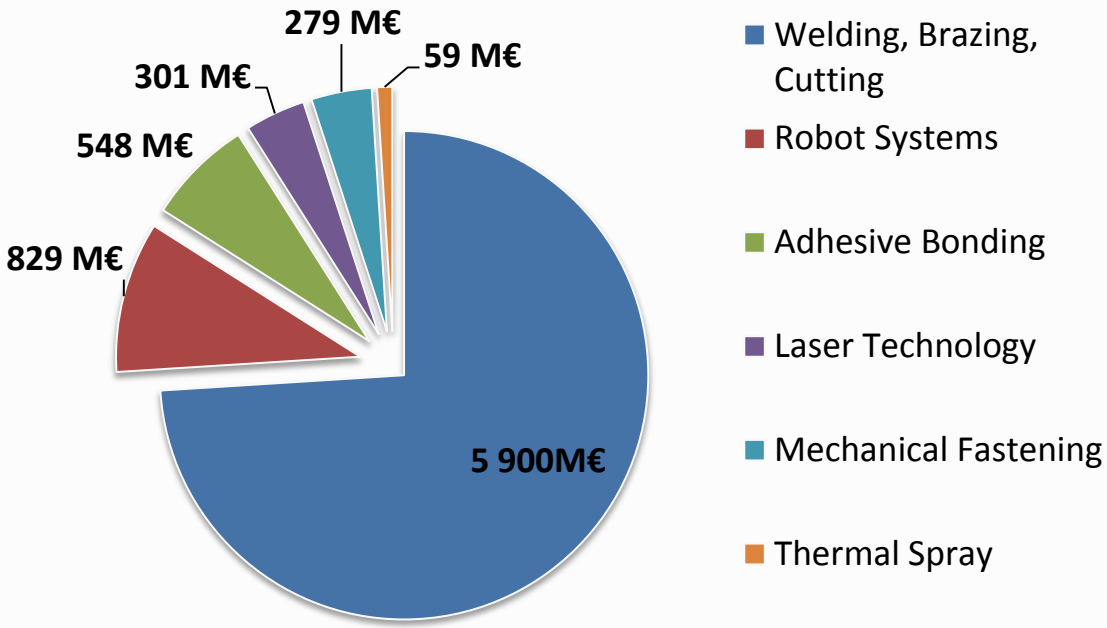
Training and Education Outline

- Why is Education and Training important in achieving the European objectives?

- **The European needs of Training and Education in Joining?**

Education and Training Welding Case

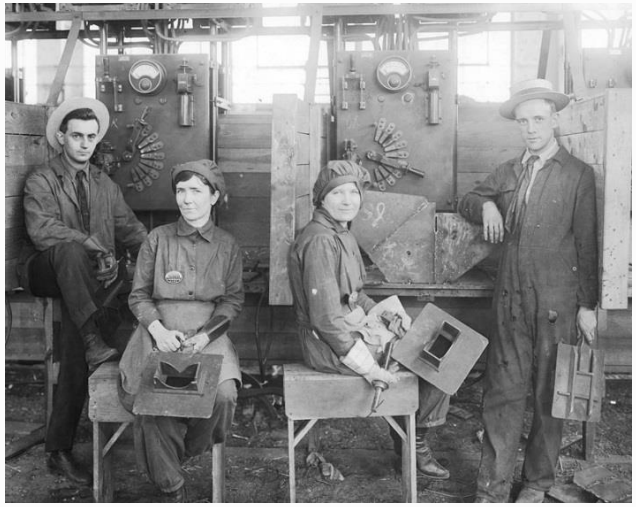
"The value added by manufacture and application of Joining technology in Europe amounted to around EUR 65 billion in 2010. Over 1.25 million employees were connected with this added value within Europe in 2010" (Moos 2013).

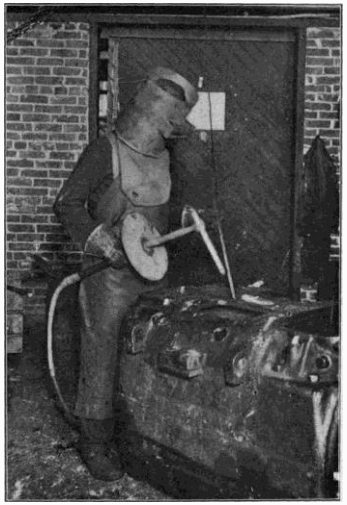


PRODUCTION / VALUE ADDED: Devices and Systems 2010

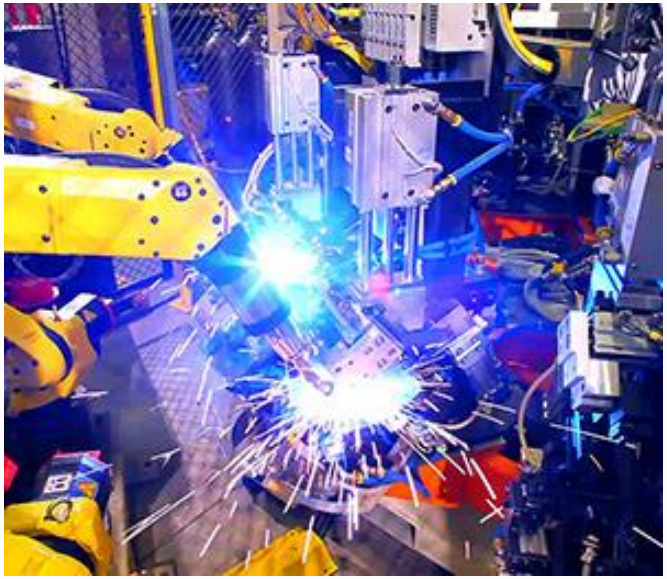
Education and Training

Welding Case









Education and Training Key Messages

- Joining has a key role in the European Manufacture industry
- Well educated and trained workers are necessary in order to achieve all the European objectives
- Horizon 2020 is a unique opportunity to strengthen the European manufacturing base by educating and training the necessary workforce

Next Step - **2030**

What will Europe look like in 2030?

The trends observed in Europe are: Ageing population, high unemployment and the changing labor market, evolving patterns and impacts of migration.

Background

Societal challenges are complex. They require not one answer but rather a combination of answers from technology, economics, sociology, political science and other relevant disciplines, based on different tools, concepts, data and interpretations.

Background


SUSTAINABLE DEVELOPMENT GOALS
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS
On September 25th, countries will have the opportunity to adopt a set of global goals to **end poverty**, **protect the planet**, and **ensure prosperity for all** as part of a new sustainable development agenda. Each goal has specific targets to be achieved over the next 15 years.

What are the Opportunities

Societal challenges require new solutions, e.g. within **sustainable energy production**, **reduction in environmental and climate impacts**, **healthy and safe food production, provision of clean water, more affordable and better health & welfare solutions**, as well as a more efficient public sector. These new solutions offer high potential for sustainable competitiveness, and growth.

Possible routes for solutions to the challenges

A. Prepare an understanding of societal grand challenges as complete as possible

B. Derive guidelines for the manufacturing domains as to which challenges to incorporate and which to leave out

C. Display how technology under respective political conditions has a chance to help

D. Decide strategically a list of priorities which policy makers will be willing to accept.

What are the expected outcomes of the initiative?

- Position paper on Manufacturing for Societal Challenges
- Contribution to the **ManuFuture 2030** vision paper in terms of shading the right perspective, which will include the goals and the challenges for **joining technology**
- Training and Education will always be relevant



Thank You for Your Attention

www.ewf.be