A consistent transition needs an improved consistency (in Italy)

Speaker: Marco Masini
Chief Operating Officer - Assofrigoristi
Agenda

• Sector development
• Labour situation
• Environment protection
• Regulatory pressure & Burocracy
• Safety issues
• Technician preparation
• Open points
Sector development

- Social and personal development passing through vapour compression technologies
- Harmfulless technologies would drive the future
Labour situation

- In developed Countries there is a leaving of manual craftworks
- Ordinary schools abandoning traditional jobs training
- Old refrigeration technicians are quitting companies
- Lack of well prepared technicians for facing refrigerants transition
From ISTAT data base

• Frigorist
  • 6 - ARTISAN, SPECIALIZED BLUE COLLARS AND AGRICULTURE
    • 6.2 - Artigiani ed operai metalmeccanici specializzati e installatori e manutentori di attrezzature elettriche ed elettroniche
    • 6.2.3 - Meccanici artigianali, montatori, riparatori e manutentori di macchine fisse e mobili (esclusi gli addetti alle linee di montaggio industriale)
      • 6.2.3.4 - Frigoristi
        • 6.2.3.4.1 - Frigoristi industriali

(dati 2016-2018: 10mila occupati)
Fonte: ISTAT
A needed job

<table>
<thead>
<tr>
<th>FORECASTED HIRING</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totale</td>
<td>1270</td>
<td>1190</td>
</tr>
<tr>
<td>Di cui assunzioni</td>
<td>700</td>
<td>800</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young people</td>
<td>52%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Diagram showing:
- Forecasts for hiring in 2017 and 2018.
- Percentage of young people in 2017 and 2018.

Giovani (Young people)
Difficult to find!

**Difficulties in Finding**

<table>
<thead>
<tr>
<th>Difficoltà di reperimento</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>87%</td>
<td>52%</td>
</tr>
</tbody>
</table>

**Reason of Difficulties'**

<table>
<thead>
<tr>
<th>Lack of candidates</th>
<th>68.60%</th>
<th>51.30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate preparation</td>
<td>6.10%</td>
<td>9.30%</td>
</tr>
<tr>
<td>Altro</td>
<td>25.20%</td>
<td>39.40%</td>
</tr>
</tbody>
</table>

**Motivi delle difficoltà**

- Mancanza di candidati
- Preparazione inadeguata
- Altro
Experience welcome (but there’s not)

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Esperienza professionale</td>
<td>72%</td>
<td>61,10%</td>
</tr>
<tr>
<td>Esperienza nello stesso settore</td>
<td>18,60%</td>
<td>23,30%</td>
</tr>
<tr>
<td>Esperienza generica</td>
<td>7,20%</td>
<td>13,20%</td>
</tr>
<tr>
<td>Non richiesta</td>
<td>2,20%</td>
<td>2,40%</td>
</tr>
</tbody>
</table>

**Turn Over**

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tot</td>
<td>5%</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Esperienza richiesta**

- Esperienza professionale
- Esperienza nello stesso settore
- Esperienza generica
- Non richiesta

**Assunzioni per sostituzione**

- 2017
- 2018
WE DON’T NEED PhD’s….

### Instruction Level

<table>
<thead>
<tr>
<th>Level</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scuola dell’obbligo</td>
<td>15,60%</td>
<td>15,80%</td>
</tr>
<tr>
<td>Formazione professionale</td>
<td>33,50%</td>
<td>42,30%</td>
</tr>
<tr>
<td>Diploma secondario</td>
<td>50,90%</td>
<td>41,90%</td>
</tr>
<tr>
<td>Università</td>
<td>0%</td>
<td>0,00%</td>
</tr>
</tbody>
</table>

### Need of a Better Experience

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tot</td>
<td>96%</td>
<td>98%</td>
</tr>
</tbody>
</table>

#### Livello di istruzione

- Scuola dell’obbligo
- Formazione professionale
- Diploma secondario
- Università

#### Necessità di ulteriore formazione
WE NEED FLEXIBILITY!

COMPETENZE RITENUTE MOLTO IMPORTANTI

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lavorare in gruppo</td>
<td>45%</td>
<td>53%</td>
</tr>
<tr>
<td>Problem solving</td>
<td>37%</td>
<td>79%</td>
</tr>
<tr>
<td>Lavorare in autonomia</td>
<td>45%</td>
<td>67%</td>
</tr>
<tr>
<td>Flessibilità e adattamento</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Competenze ritenute importanti

- Lavorare in gruppo
- Problem solving
- Lavorare in autonomia
- Flessibilità e adattamento
Environmental protection awareness

- Poor awareness of the environment impact of maintenance and refrigeration leaks containment
- The most of the attentions are towards ease of usage and simple tooling/requirements
- GWP is just a cost related concept
- TEWI not yet a meme
Regulatory pressure and bureaucracy

- In Italy there is a «consistent delay» of about 5 to 6 years in new European regulation adoption.
- This is creating lack of confidence on interest and controls by regulator Body.
- Fgas department in Italian minister is made of 1 person!
- At the last parliamentary discussion about the new (3 years delayed) Decree on sanctions nobody collected association comments nor replied to inputs.
Burocracy

• To exert the refrigeration technician profession you need to have several different certification taking costs and barriers

• The european standard EN13313 (pr ISO EN22712) that is collecting all the needed requirements and prescriptions about the job is not yet recognized nor pursued as a must

• In Italy Heat Pumps have national and regional laws creating confusion
Safety issues

- Since refrigeration technician is not an ordinary professional chance on national minister listing, none of the new graduates is prepared for the profession nor for the new refrigerants risks
- HVAC&R as a pressure relevant risk is not yet perceived (1 month ago a person died in Rome)
- Status:
  - Italian fire security Decree is about to be released and it has a relief on A2L (mildly flammable) refrigerants
  - Very High pressure application are handled and managed from very few technicians
  - Ammonia is limited by the need of managing both flammability and toxicity with a special 1927 certification
Technician preparation

• Most of the training is given to existent professionals
• F-Gas training by Reg. 517/2014 is a too short and weak training for providing relevant preparation for handling new refrigerants
• Professional schools taking care of a good enough preparation for the «future technicians» are few and mainly in north of Italy
• Assofrigoristi/Assocold have created a unique training center for a regional young guys that want to get to the profession
What’s undergoing...

- Assofrigoristi, aware of the issue of the training, looked for a partner...
- The professional schools were the right counter part since of their good flexibility and dynamics
- **ASLAM** understood the potentiality
- The idea is alive! ...thanks to the meeting with **Assocold/ANIMA**
From the idea…

• Started in 2017….
....to the opening!

• February 2019
The TFC space is alive
TCF today

• School preparation (professional school, IFTS, Lombardia Plus...)
• Professional adjournment
• Pillar place for the cold chain stakeholders
• Unemployment training...
• ....
First results in terms of refrigeration technician recognition

• We started by having a recognition in Regione Lombardia as «tecnico installatore e manutentore degli impianti a fluidi termoportanti»

• As far as today, we have been advised that MIUR has receipt the «tecnico impianti termoidraulici-frigorista» in the so called «repertorio»
Open points

• **A stronger group of interest** must be foreseen to support the transition in Italy. We are working on it but it’s still far away from optimum…

• **Incentives for F-Gas transition** would be recommended: to head to very low GWP solutions more and more training and competencies needed

• **A consistent support from Government** is really needed for a ordered re-creation of artisan and craftwork related professional schools
La professione

- La professione del «tecnico frigorista», sebbene chiaramente identificata, non ha un riconoscimento formale che ne consente l’identificazione.
- Le aziende del settore, sono spesso classificate secondo diversi codici Ateco (NACE):
  - 28.25
  - 33.12.40
  - 43.22.01
- Anche la Lettera «c» del DM 37/08 affoga il frigorista in mezzo a molte altre professioni (riscaldamento, climatizzazione, condizionamento, refrigerazione, camini, ventilazione).
- Per l’economia il Frigorista non esiste, e allo Stato sfugge il valore reale e l’importanza della professione (se non ti possono «contare» non esisti!)
  - Per l’ISTAT il Frigorista è il cod. 6.2.3.4.1 «Le professioni comprese in questa categoria installano, manutengono e riparano macchine e impianti frigoriferi ad uso industriale o le loro parti, impianti e sistemi di refrigerazione e di condizionamento e i relativi componenti a bordo di navi o di altri mezzi di trasporto marittimo.»
Prossimi passi

• Assofrigoristi ha formato Assofrigoristi datoriale per la sottoscrizione di un CCNL dedicato
  • Tagliato sulle esigenze delle società frigoriste (con Regola dell’Arte specifica, EN 378)
  • Capo operaio certificato EN 13313
  • Formazione e aggiornamento continuo regolato da Assofrigoristi e finanziato da specifico Ente Bilaterale

• Obiettivo:
  • Codice Ateco/NACE specifico (in analisi UE con AREA)
  • Lettera specifica DM37/08