Certification of installers: the Spanish new SGE installers professional certificate

Javier F Urchueguía
EGEC Vicepresident
Vicechair of ETIP RHC and chairman of the Geothermal Panel
Geotrainet ASBL chairman
Summary

• RHC context and Outlook
  • Shallow Geothermal challenges
• Training and GEOTRAINET
• Materializing the scheme: new Spanish Qualification system
• Concluding remarks
RHC context and outlook

• Energy transition is accelerating
  • 2030 agenda and beyond
  • Sense of urgency and crisis
  • Traditional markets (oil & gas) have now a flavour of being less reliable than before

• What is the contribution of RHC in this context?
  • There is still a lack of recognition and acceptance
  • Potential not well understood
  • Barriers are still overwhelming
Real potential of RHC still to be uncovered

- Continuous growth in share between 2007 - 2018
- Clean Energy Policy Forecast in the central EUCO3232.5 scenario gives an increasing role to EFFICIENCY and RHC
- More GREEN electricity but not more electricity overall
- Extrapolating this trend to 2040 brings us to a conservative 50% RHC scenario
- **WHY NOT 100% ?!**
• In the geothermal sector there is much to do in terms of:
  • Improving models, potential assessment, statistics, planning
  • Geothermal heat pumps
  • GeoDH
  • DG electricity CSP
• Geothermal is still far from potential
• Scalability must be achieved
• Market conditions must be substantially improved
• Training and qualification is one of the pillars of the deployment of SG at large scale

• Despite RED, there is still a far way to go for a interoperable, accessible in all countries and high quality geothermal installers European qualification and certification system
Training and GEOTRAINET
Improving training: critical assumptions

- RES directive enforces Member States to present SOME qualification & certification scheme for RES installers. Such scheme includes:
  - Certification of «shallow geothermal installers»
  - The mutual recognition feature between all MS

- Besides the installers qualification, it is important to take into account the need to train designers and to provide them with some certificate which is understood and valued in the market
What means qualification?

Under the European Qualifications Framework (EQF), there are 8 common European reference levels, described in terms of learning outcomes: knowledge, skills, and competences. It allows to correlate and compare National Qualification Systems awarded in different countries or by different education systems.

**High level knowledge-based qualifications** that provide academic knowledge, which tends to be theoretical rather than applied.

**Competence-based qualifications** are learning programmes that provide you with the competence (knowledge, skills and abilities) you need to do a certain job effectively.
Technical qualification schemes:
- Professional qualifications (of engineers, geologists, etc.)
- Standards, national rules and legislations

Geothermal stakeholders
PLATFORM, Manufacturers, Associations, etc..

National Training Committee

Universities, Training Centers, Companies

General Framework for contents adaptation

Advice, promotion, influence

Advice, adapted training materials, follow up, quality control

EU authorized training materials

Representative

GEOTRAINET
European Training & Certification Committees

Training Certification

Geothermal designers Active Professionals

Designation
Materializing the scheme: the new Spanish qualification
Spanish qualification system

• In Spain, the process is governed by INCUAL (Instituto Nacional de las Cualificaciones = National Institute for Qualifications), a non-ministerial department responsible for accrediting and maintaining the national standards of qualifications, exams and assessments.

• This body regulates all qualifications, examinations and assessments, according to a set of predetermined standards and decides whether or not they meet the necessary requirements.
• In 2016, GEOPLAT established a collaboration framework with INCUAL to contribute to develop the basis for future training qualifications in geothermal HVAC systems to be implemented in Spain.

• These qualifications allowed the development of higher and intermediate vocational training courses in geothermal exchange systems in Spain, as well as official vocational training courses for the unemployed and allow the official accreditation of experienced installers with the corresponding diploma and license.
• After more than 5 years of intense work by GEOPLAT together with INCUAL, the Royal Decree 297/20211, of April 27, is published, establishing certain professional qualifications of the Professional Family Energy and Water, among which are included the new qualifications of Level 2 and 3 on geothermal air conditioning systems: Installation and maintenance of geothermal exchange systems in closed circuit. Level 2. ENA710_2 (390 hours). Management of geothermal exchange systems in closed circuit. Level 3. ENA711_3. (390 hours).

• Installation and maintenance of geothermal exchange systems in closed circuit. Level 2. ENA710_2 (390 hours)

• COMPETENCE UNIT 1: INSTALLATION, COMMISSIONING AND MAINTENANCE OF SHALLOW CLOSED-LOOP GEOTHERMAL SYSTEMS – ZERO CIRCUIT

• COMPETENCE UNIT 2: INSTALLATION, COMMISSIONING AND MAINTENANCE OF SHALLOW CLOSED-LOOP GEOTHERMAL SYSTEMS – TECHNICAL ROOM
Current situation

• After the announcement these qualifications are included in the Catalogue of Training Specialties of the Public Employment Service - SEPE - of the specialty of professional qualification level 2: ENAE06 'Assembly and maintenance of geothermal exchange installations in closed circuit'.

• GEOPLAT, together with the Santa Barbara Foundation, have managed to include - within the framework of the National Employment System of the Ministry of Labor and Social Economy - a EQF level 2 geothermal training program in the Catalogue of National Training Specialties.
• We are still working on the deployment of the Level 3 EQF qualification

Concluding remarks

• Throught the EuroPass scheme it would be possible to allow the mutual recognition of similar qualifications in other countries in Europe

• The Curricula and Skills catalogue developed by GEOPLAT and INCUAL are compliant with the principles set by GEOTRAINET and hence could be easily adopted by others to start similar initiatives across EU MS

• Much is still to do to allow the development of an homogeneous and sound training & qualification landscape in Europe
Thanks for your attention!