

26TH INTERNATIONAL CONGRESS OF HISTORY OF SCIENCE AND TECHNOLOGY

25-31 July 2021, Prague and Online

Session Gas and Electricity as an element of technological development in Latin Europe: technicians, processes, gas Works and networks

Paper:

Engineers and technicians in Latin European Gas Industry (1914-1945)¹

Mercedes Fernández-Paradas

Universidad de Málaga

Florentino Moyano Jiménez

Universitat Rovira i Virgili

Antonio Jesús Pinto Tortosa

Universidad Europea

In 1874 the *Société Technique d'Industrie du Gaz en France* was born, and it became one of the main associations in the World and European gas sector. In 1877 its members founded the *Journal des usines à gaz* (1877-1958), which turned into a reference journal for entrepreneurs and technicians in the gas industry. We have decided to use that source and recover back the memory of the engineers and technicians that participated in Latin European gas industry, in the years between 1914 and 1945. The year 1914 was a turning point, since the start of the First World War meant a crisis in the gas sector, due to the difficulty to get the coal needed. The same problem happened in the Second World War. In contrast to both crises, the 1920s saw the growth of the sector because of new uses of gas, especially at the people's homes. Consequently, in the Inter-War Years distribution networks and gas transportation were enlarged, and factories were modernised.

¹ We are grateful to the I Plan Propio de Investigación, Transferencia y Divulgación Científica de la Universidad de Málaga, for their financial help that has allowed the presentation of this paper.

The foundation of Société Technique de l'industrie du gaz en France. In 1867, gas people from Lyon –directors, engineers, and administrators–, among them Émile Vautier, Sigaud, Lachomette, and Génin, thought of creating and association. In 1873, in a meeting celebrated with British gas entrepreneurs, Albert Ellissen became convinced of the need to create an association. Albert Ellisen, Emile Coze, A. da Costa, Hugo, Ch. Foucard, Eugène Lebon, S. Jordan, E. Servier, A. Mallet, and Léonce Vée founded the Société Technique de l'Industrie du Gaz en France on 5th May 1874. The creation of the French employers' gas guild (*Union Syndicale de l'industrie du Gaz*) meant the professionalization of the *Société Technique*. In 1927 they re-founded the *Société Technique*, merging it with the *Union Syndicale de l'industrie du Gaz*, thus creating the *Association Technique du Gaz*. Since that moment its activity became diversified, starting the education of future gas technicians and entrepreneurs. The new *Association Technique* played a key role in the foundation of the *Union International de l'industrie du Gaz* (1931).

We have based this research on *Journal des usines à gaz*, newspaper of the *Société Technique de l'industrie du Gaz*. Founded in 1877, it operated under that name until 1958. It had 500-550 subscriptions in 1914, and around 900 in 1935. 27,8% of the suscribers were foreigners.

Obituaries in the *Journal des usines à gaz* as documentary source for studying the biography of engineers. We have found 120 obituaries, from Latin Europe: 91,4%. Information provided: birth and death dates, education, companies in which the deceased person participated, positions, decorations, publications...

The importance of french engineers. France was one of the pioneer countries in the internationalisation process of capital and knowledge. The country started the gas industry in Latin Europe, and it favoured its spread along the European continent. France led the spread of gas, in technological and entrepreneurial terms, in Southern Europe and North Africa. Its investors and engineers had a big influence in Spain and Italy, above all.

Table 1.

Member os the Société Technique de l'industrie du gaz en Latin Europe

Country	Members	%
France	740	84,5
Spain	19	2,2

Italy	15	1,7
Latin Europe	774	91,5
Société Technique	846	100

Source: Alberte Martínez & Jesús Mirás (2021): “La transferencia de tecnología en la Europa Latina: el papel de la Société Technique de l’industrie du Gaz en France, 1895-1938”, *Asclepio* (en prensa).

References

- Cardoso de Matos, A., 2006. Les ingénieurs et la création de réseaux de gaz et d’électricité au Portugal: transferts et adoption de technologies (1850-1920). In: Merger, M. (Dir.), Transferts de technologies en Méditerranée. Presses de l’Université Paris-Sorbonne, Paris, pp. 185-206.
- École centrale des arts et manufactures, 1889. Anciens élèves de l’École centrale 1832-1888. Imprimerie Nouvelle, Paris.
- Fernández-Paradas, M., Pinto Tortosa, A. J., 2021a. Melitón Martín Arranz (1820-1886): ingeniero promotor del despegue de la industria gasística española. *Llull* (88), 175-19.
- Fernández-Paradas, M., Pinto Tortosa, A. J., 2021b. La saga de los ingenieros británicos Manby y su contribución a la industria del gas en Francia y España (1776-1884). *Asclepio. Revista de Historia de la Medicina y de la Ciencia* (73/2).
- Lebon & Cie, 1947. Lebon & Cie: un centenaire 1847-1947. Lebon et Cie, París.
- Martínez-López, A., Mirás Araujo, J, 2021a. La transferencia de tecnología en la Europa Latina: el papel de la *Société Technique de l’industrie du Gaz en France*, 1895-1938). *Asclepio. Revista de historia de la medicina y de la ciencia* (73/2).
- Martínez-López, A., Mirás Araujo, J, 2021b. Los ingenieros y la modernización de la industria del gas en la Europa latina, 1874-1938. In: Medina Ruiz, I., Pinto Tortosa, A. J., Ravina Ripoll, R., Rodríguez Martín, N. (Eds.), *Los ingenieros en la Europa del Sur (Siglos XVIII-XX)*. Tirant lo Blanch, Madrid.
- Martykánová, D. (2016-2017). Les ingénieurs entre la France et l’Empire Ottoman (XVIIIe-XXe siècles): un regard mosaïque pour une histoire croisée. *Quaderns d’Història de l’Enginyeria* (XV), 159-182.
- Martykánova, D. (2018). Global Engineers: Professional Trajectories of the Graduates of the École Centrale des Arts et Manufactures (1830s–1920s). In: D. Pretel y L. Camprubí (Coords.), *Technology and Globalisation: Networks of Experts in World*. Palgrave, pp. 75-104.
- Sánchez Miñana, J., Sánchez Ruiz, C., 2020. *Ciervo* en la Barceloneta (1861-circa 1960): ascenso y declive de una empresa auxiliar de la industria del gas, primera fábrica de contadores en España. In: Bartolomé Rodríguez, I., Fernández-Paradas, M., Mirás Araujo, J. (Eds.), *Cercanas pero distintas. La*

desigual trayectoria de la industria del gas en las regiones del sur de Europa (siglos XIX-XX). Marcial Pons, Madrid, pp. 165-182.

Société Technique de l'industrie du Gaz en France, 1924. L'industrie du gaz en France 1824-1924, Devambez, Paris.

Williot, J.P. (2003). La diffusion de la technologie gazière française dans le bassin méditerranéen: de la construction des usines à la mise en place des réseaux de gaz naturel (années 1840-1980). In: Merger, M. (Dir.), Transferts de technologies en Méditerranée. Presses de l'Université Paris-Sorbonne, Paris, pp. 207-220.