Restructuring the Dutch Chemical Industry: A Bold Response to the Absence of Imports from Germany

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Before World War I the Dutch chemical industry was dominated by small and middle-sized companies. The three largest German dye companies employed together about 25,000 workers, more than the entire Dutch chemical industry, and *each* of them employed about 300 chemists, again more than the entire chemical industry in the Netherlands. This would change dramatically during the war. The open economy of the Netherlands was hit immediately when the war broke out. On 19 August 1914 the Dutch Chemical and Pharmaceutical Societies joined forces in warning the Ministry that German export prohibitions threatened the supply of pharmaceuticals in the country. Shortly thereafter, in response to the British sea blockade, leading businessmen created in November 1914 the Nederlandsche Overzee Trustmaatschappij (N.O.T.), that channeled and administrated all overseas trade, in order to guarantee to Great Britain that no British-made goods were re-exported to Germany. In practice though, smuggling rose to unprecedented levels during the war.

In my presentation I will discuss how the Dutch chemical industry responded to that situation; in three major ways. In the first place, R&D efforts intensified, in order to find substitutes for products imported from Germany before the war. In the second place, Dutch government organized a consortium of chemical companies with the aim of raising munitions supply, and, in particular, the production of high explosives – which had never been produced in the Netherlands before. Finally, partly connected to the two other developments, I will focus on the initiatives of Professor Gerrit Hondius Boldingh (1865-1936) – professor of applied chemistry at Amsterdam University and director of a small company that produced glycerine – to create a large chemical holding company that would include eight of the major organic and inorganic chemical companies of the country, with the close support from Royal Dutch/ Shell and the largest Dutch bank.

Although one of the major initiatives of that holding company, the establishment of a factory for making azo dyes, was killed off after the war by German competition, the long term effects of this unique collaboration between these companies should not be underestimated. The major Dutch bank widened its focus from the colonies to the motherland, thereby creating the conditions for the Dutch chemical industry to expand; Royal Dutch/ Shell maintained close relations with all the companies, which helped the company to later diversify into petrochemicals; and the smaller companies had all gained valuable experience in economies of scale and scope that would guide them in their further expansions.

Select bibliography

Hertog, Johan den, and Samuël Kruizinga (Eds.), *Caught in the Middle: neutrals, neutrality, and the First World War* (Amsterdam: Aksant 2011).

Homburg, Ernst, 'De Eerste Wereldoorlog: samenwerking en concentratie binnen de Nederlandse chemische industrie', in: J.W. Schot et al. (Eds.), *Techniek in Nederland in de twintigste eeuw*, Vol. 2 (Zutphen: Walburg Pers 2000), pp. 316-331.

Homburg, Ernst, 'Explosives from Oil: The Transformation of Royal Dutch/ Shell during World War I from Oil to Petrochemical Company', in: Brenda J. Buchanan (ed.), *Gunpowder, Explosives and the State: a technological history* (Ashgate: Aldershot 2006), pp. 385-407.

Homburg, Ernst, 'Operating on Several Fronts: The Trans-National Activities of Royal Dutch/ Shell, 1914-1918', in. R.M. MacLeod and J.A. Johnson (eds.), *Frontline and Factory: Comparative perspectives on the chemical industry at war, 1914-1924* (Dordrecht: Springer 2007), pp. 123-144.

Hondius Boldingh, Gerrit, 'Chemische industrie in Nederland', *Chemisch Weekblad* 16 (1919) 242-253.

Klinkert, Wim, 'Het is een ingenieursoorlog,' in: Hans Andriessen and Perry Pierik (Eds.), *De Grote Oorlog. Kroniek 1914-1918*, Vol. 14 (Soesterberg: Aspekt 2007), pp. 250-290. See also: http://www.ssew.nl/ingenieursoorlog.

Klinkert, Wim, *Defending Neutrality: the Netherlands prepares for war, 1900-1925* (Leiden: Brill 2013).

Kruizinga, Samuël, *Overlegeconomie in oorlogstijd : de Nederlandsche Overzee Trustmaat-schappij en de Eerste Wereldoorlog* (Zutphen: Walburg Pers 2012).

Kruizinga, Samuël, 'Neutrality,' in: Jay Winter et al. (Eds.), *Cambridge History of the First World War*, Vol. 2 (Cambridge: Cambridge University Press 2014), pp. 542-575.

Woltereck, Heinz, *Die Entwicklung der chemischen Industrie Hollands in den Jahren 1914 bis 1925* (PhD dissertation, Leipzig 1927).