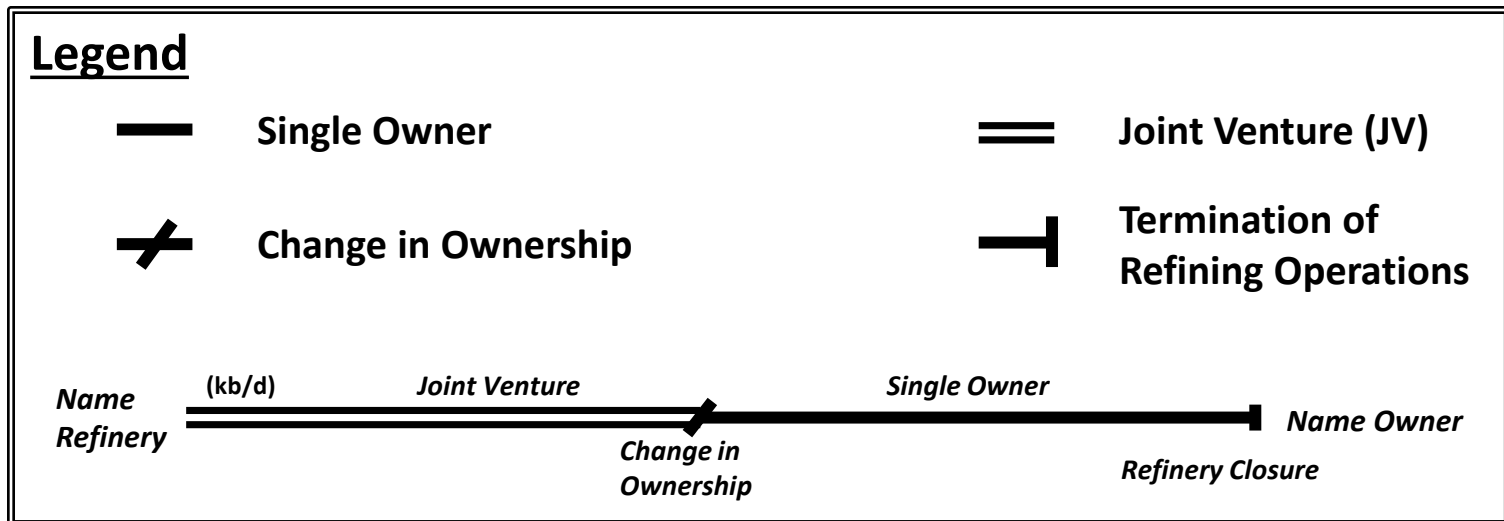
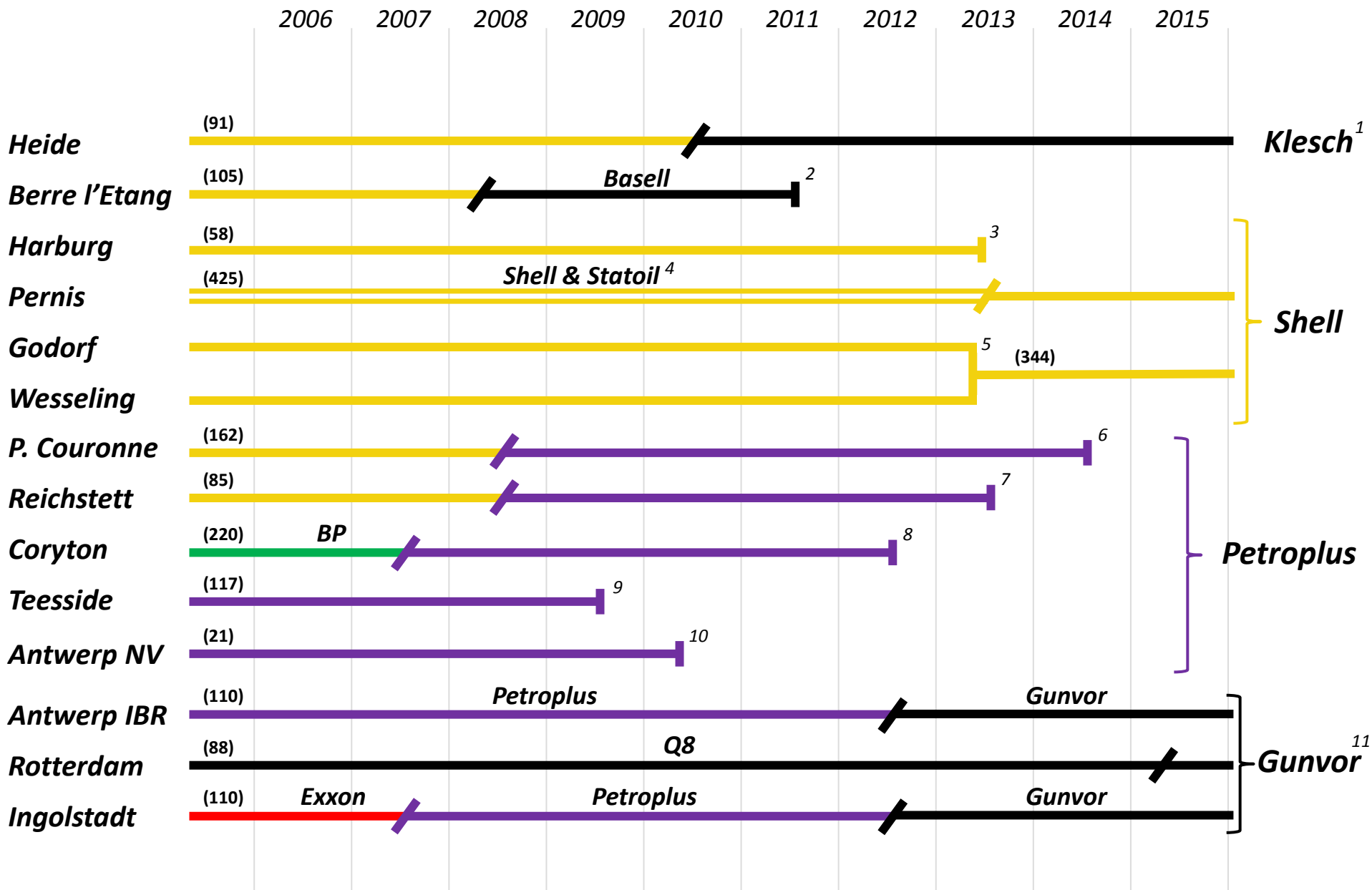


A Decade of Refining in Northwest Europe

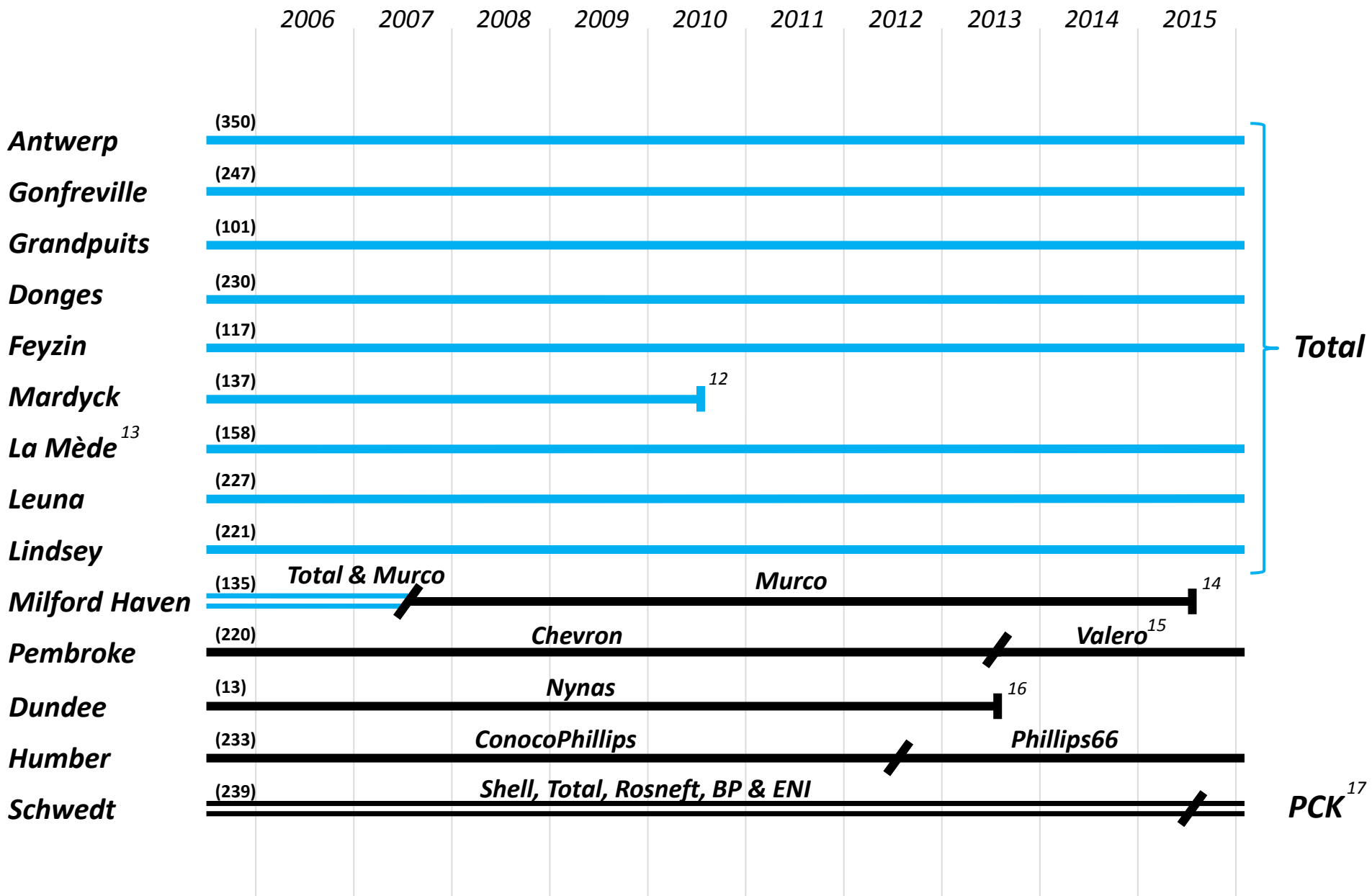
An overview of refinery ownership and operations in Belgium, France, Germany, the Netherlands and the UK between 2006-2016



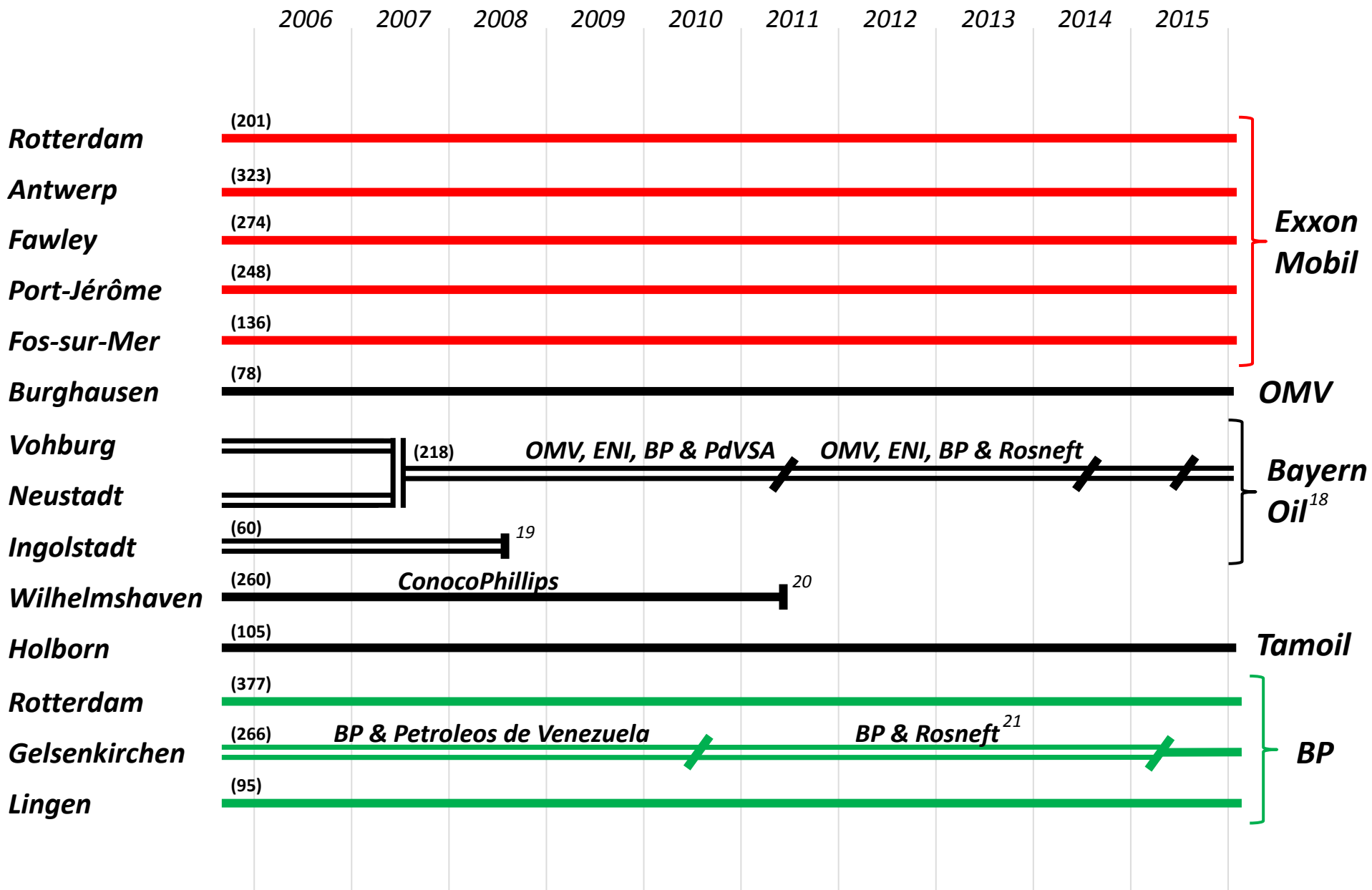
NWE Refineries – Timeline



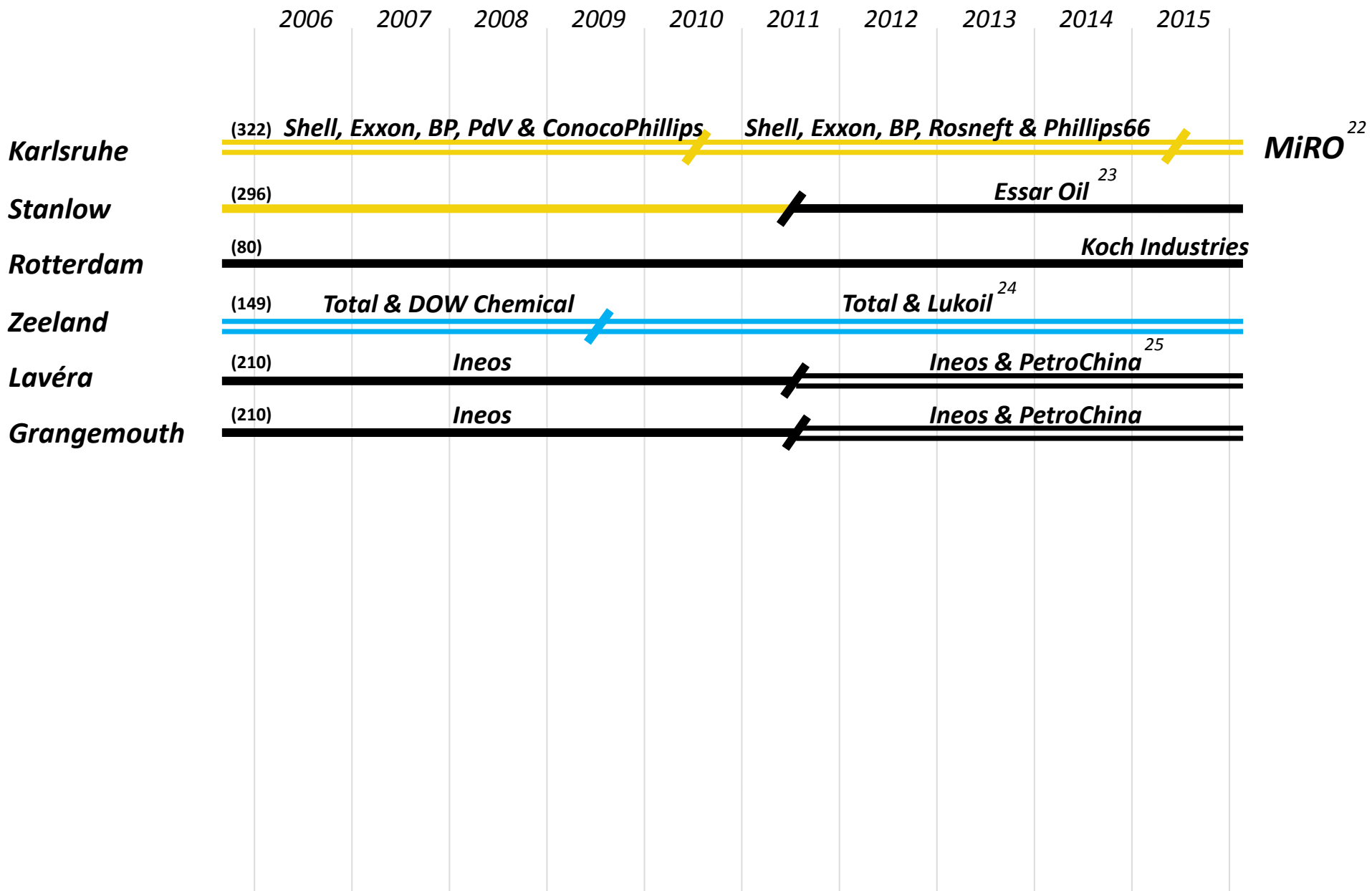
NWE Refineries – Timeline (Continued)



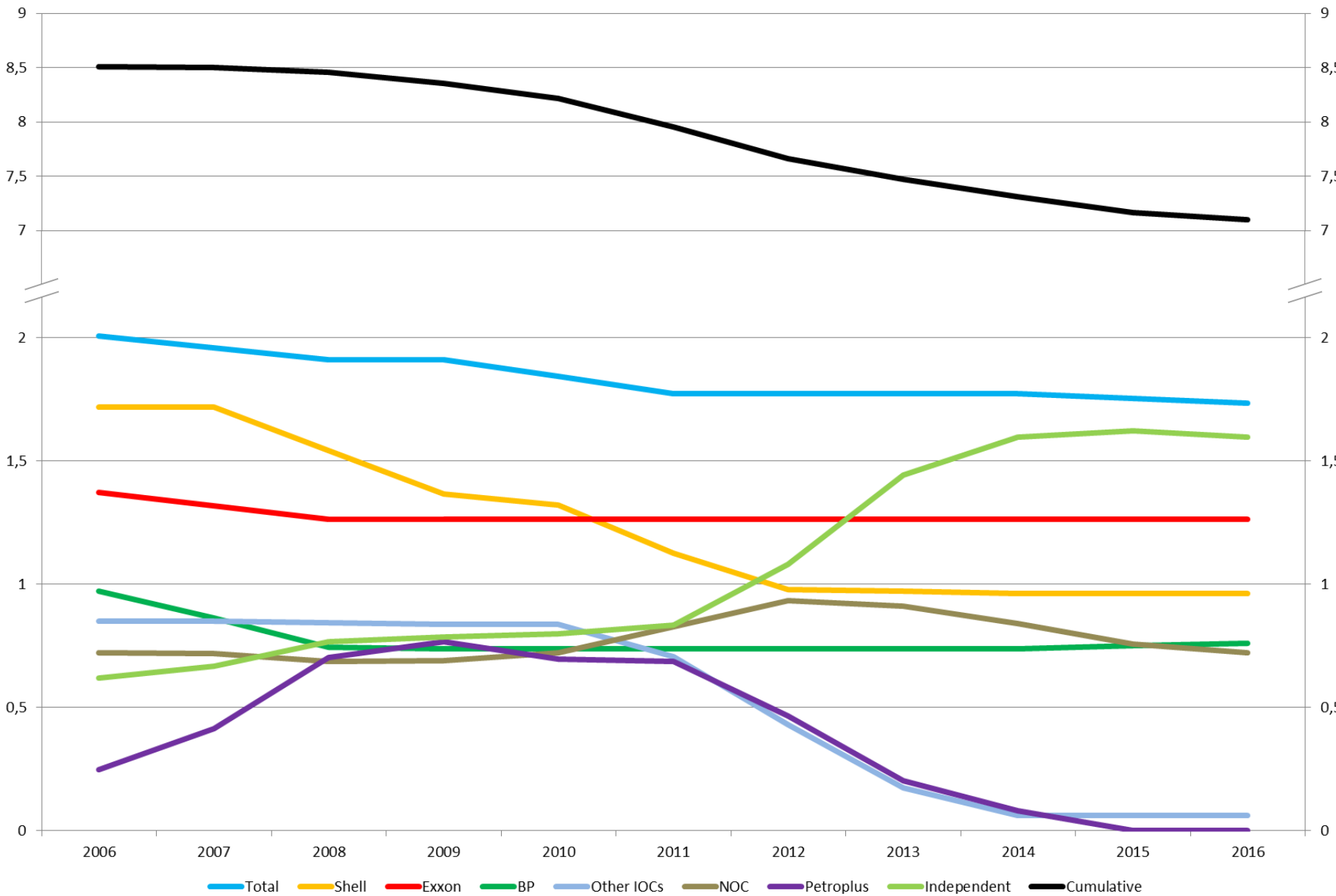
NEW Refineries – Timeline (Continued)



NWE Refineries – Timeline (Continued)



NWE Refineries – Distillation Capacity (Mb/d)



NWE Refineries – Notes

- ¹ *Klesch* buys the Heide refinery from *Shell* in 2010. <http://www.heiderefinery.com/en/the-company/history.html>
- ² *LyondellBasell* closed the refining operations in Berre l'Etang in 2011 after being unable to find a buyer (but continues to operate the adjacent petchem.
- ³ *Nynas* took over part of Harburg refinery from *Shell* in 2013. It operates the base oil plant. <http://www.nynas.com/Media/News/Nynas-starts-to-operate-the-Harburg-base-oil-plant/>
- ⁴ In 2013, *Shell* and *Statoil* agreed to swap its shares in both the Pernis and Mongstad (N) refinery. As such, *Shell* acquired the remaining 10% of Pernis. http://www.statoil.com/en/ouroperations/terminalsrefining/prodfacilitiesmongstad/Pages/FullOwnershipMongstad_nov2013.aspx
- ⁵ In 2011, the integration of Godorf/Wesseling was completed to form the integrated *Shell* Rhineland refinery. See more on the 'Connect Projekt' on <http://www.werbekurier.de/rag-vsw-wk/docs/735531/wesseling>
- ⁶ After *Petroplus'* bankruptcy, the Petit Couronne refinery was bought by *Valgo* to be converted into a storage terminal (operated by *Bolloré Energie*) and an industrial area. <http://www.valgo.com/common/img/cp-2015-04-08-PIC.pdf>
- ⁷ After *Petroplus'* bankruptcy, the Reichstett refinery near Strassbourg was bought by *Brownfields* to be converted into a storage terminal and industrial area. The storage terminal is operated by *Rubis* and integrated with its existing storage facilities in the area. <http://www.rubis-terminal.com/fr/node/63>
- ⁸ The Coryton refinery site was initially bought by a consortium consisting of *Shell*, *Vopak* and *Greenery* with the intention of converting the site into a storage terminal. However, recently *Vopak* has sold its share to *Greenery* but the overall aim remains. <http://greenergy.com/News/index.html>
- ⁹ The former *Petroplus* refining site Teesside has been converted to storage terminal by *Greenery* in 2009, now called North Tees. <http://greenergy.com/News/index.html>
- ¹⁰ In 2009, *Vitol* acquired the Antwerp NV refinery but has closed the crude distillation unit only to continue operating the bitumen plant. <http://www.vitol.com/vitol-enters-into-a-definitive-agreement-to-acquire-antwerp-refining-facilities-from-petroplus/>
- ¹¹ *Gunvor*, entered the refining market in 2012 via the acquisition of both the Antwerp IBR refinery and the Ingolstadt refinery from *Petroplus*. Recently, it has also taken over the Rotterdam refinery from *Q8*. <http://gunvorgroup.com/our-assets/refineries/>
- ¹² *Total's* Mardyck (Dunkirk) refinery has been closed in 2010 only to be converted into training centre, storage terminal and biorefinery
- ¹³ In 2015, *Total* announced intentiona to convert its La Mède refinery into a biorefinery and storage site. <http://www.total.com/en/media/news/press-releases/totals-french-refining-roadmap-upgrade-donges-and-transform-la-mede>
- ¹⁴ After 8 years of operation, *Murco* sold its Milford Haven refinery to *Puma Energy* who intend to convert the site into a storage facility. <http://www.pumaenergy.com/2015/03/13/puma-energy-announces-acquisition-of-murco-oils-uk-sites>
- ¹⁵ In 2011, *Valero* acquired the Pembroke refinery from *Chevron*. <http://www.valero.com/ourbusiness/ourlocations/refineries/pages/pembroke.aspx>
- ¹⁶ In 2014, *Nynas* seized operations at its Dundee refinery. <http://www.nynas.com/Media/News/Changes-planned-for-Dundee-refinery/>
- ¹⁷ The JV *PCK* operates the Schwedt refinery, consisting of *Shell* (37,5%), *Total* (16,7%), *Ruhr Oel GmbH* (37,5%) and *ENI* (8,3%). In 2015 *Rosneft* acquired both *Total's* 16,7% and *BP's* 18,75% stake to become a majority shareholder (54,17%) . <http://www.rosneft.com/news/pressrelease/28112014.html>

NWE Refineries – Notes (Continued)

¹⁸ *Bayernoil* is a JV that today consists of *VARO* (45%), *Ruhr Oel GmbH* (25%), *ENI* (20%), *BP* (10%). In 2014 *VARO* acquired the 45% *OMV* stake in *Bayernoil* JV. <http://www.vitol.com/varo-energy-completes-acquisition-of-assets-including-stake-in-bayernoil-refinery-from-omv/> In 2015 *Rosneft* acquired *BP*'s share of *Ruhr Oel GMBH* <http://www.rosneft.com/news/pressrelease/28112014.html> The integration of both Vohburg and Neustadt refineries was finalized in 2007.

¹⁹ As part of the ISAR-project, the *Bayernoil* Ingolstadt Refinery was closed in 2008. The site is redeveloped for commercial/industrial land use.

²⁰ The Wilhelmshaven refinery has been closed by *ConocoPhillips* in 2011 and subsequently sold to *Hestya International*. *Hestya* has completed the conversion into a storage terminal. <http://www.bloomberg.com/news/articles/2011-08-15/hestya-to-use-wilhelmshaven-as-terminal-not-refinery-ceo-says>

²¹ Gelsenkirchen refinery was owned by the JV *Ruhr Oel GmbH* was a JV between *BP* (50%) and *Petroleos de Venezuela* (50%). In 2010, *Rosneft* acquired *PdV*'s stake in *Ruhr Oel GmbH*. http://www.rosneft.com/Downstream/refining/Ruhr_Oel_GmbH/ But in 2015, as part of larger equity deal, *BP* acquired total control of the Gelsenkirchen refinery <http://www.bp.com/en/global/corporate/press/press-releases/rosneft-and-bp-sign-agreement-to-dissolve-the-joint-venture-ruhr-oel-gmbh.html>

²² *MiRO* is a JV between *Shell* (32.25%), *Exxon* (25%), *Rosneft* (24%) and *(Conoco)Phillips66* (18.75%). <http://www.miro-ka.de/de/portrait/gesellschafter.htm>

²³ In 2011, Indian company *Essar* bought the Stanlow refinery from *Shell*. http://www.essar.com/article.aspx?cont_id=EdtXx5Kr0/s=

²⁴ The Zeeland refinery has been a JV between *Total* (55%) and *Dow Chemical* (45%). In 2009, *Lukoil* took over *Dow*'s share. <http://www.zppc.nl/en/zeeland%2520refinery>

²⁵ In 2011 *PetroChina* and *Ineos* formed the JV *PetroIneos* that now owns both the Grangemouth and Lavera refineries. <http://www.ineos.com/news/ineos-group/petrochina-and-ineos-complete-transaction-to-form-trading-and-refining-joint-ventures-related-to-the-refining-operations>