Talent Acquisitions and Lock-in Agreements: Antitrust Concerns

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Abstract

In recent years companies are paying more and more attention to the promising ideas and researchers within their fields. In various pharmaceutical sectors, most part of the firms is buying talent but not a customer base and products. When a company is acquiring a controlling stake in a smaller research and development-focused firm, the vendor is often the leading researcher and she are retained by non-compete clauses, confidentiality clauses and other forms of obligations that will keep the person working exclusively for the target. Acquisitions and strategic collaborations with far-reaching lock-in effects have suffered from underenforcement of competition law, and that neither United States antitrust agencies nor the European Union Commission, nor the competition authorities of the BRICS countries have sufficiently addressed the innovation concerns raised in these regards. Our proposal, which we admit requires further analysis and development, is to view researchers and key individuals as innovation assets — and to recognise these assets on the input markets or R&D markets that they de facto are active on. This would enable analysis of whether large corporations are essentially vacuuming the relevant research and development markets and creating dead zones devoid of any new ideas.

Keywords

acquisition; talents; innovation asset; competition law; antitrust enforcement; research and development market; non-compete clause.
Introduction

It seems that there is a general consensus that the benefits of unfettered innovation far exceed the potential gains of making markets more competitive by driving prices closer to marginal costs. In light of this, one obvious issue should be, whether competition authorities should take innovation and the disbursement of research and development (R&D) capabilities into consideration, perhaps even as the ultimate goal when screening concentrations under merger law or collaborations as regards anti-competition agreements.

Globally there is a booming start-up trend, where entrepreneurs are encouraged to pursue their ideas and nascent business strategies and where large incumbent firms are paying close attention to the promising ideas and researchers within their fields of business. In various industries, such as Big Tech, biotech and pharma, incumbent firms are purchasing ideas and talents in the form of start-ups, rather than a customer base and products. Cases where companies make merger and acquisition (M&A) deals to acquire specific R&D projects are currently common within the digital economy and all industries with a strong innovative component. In research-driven organisations, the employees controlling and developing the research or business strategies are considered highly valuable assets. When incumbent firms buy R&D or tech start-ups, they usually want to acquire the ideas, knowledge and research methodology held by the key employees [Zingales L., 2000: 29].

Generally, the incentive for an incumbent firm to purchase a start-up is matched by an equal incentive for the entrepreneur to be purchased. Many entrepreneurs today seek not to ‘innovate to compete’ with incumbent firms, but rather to ‘innovate for sale’. They seek not to enter the market as a competitor of the incumbents, often larger firms — instead providing a nascent business potential or even threat to the incumbent firms. The ultimate goal is to be purchased. Indeed, in several industries, it seems that incumbent firms purchase research or management teams’ ideas and talents. They have as a strategy to accumulate the valuable assets constituted by the key employees’ goals, research, tacit knowledge and experience. This can
strengthen an incumbent firm’s competitive advantage in the market. Innovation, in a broad sense, is acquired and competitive threats are neutralised. However, the competitive threat is mainly contained in the entrepreneurship of the key employees, and to neutralise this threat, key employees often need to stay on in the firm for some time after the purchase. The entrepreneurs may agree to this because they have launched the start-up with the aim to sell it to an incumbent for remuneration, rather than to compete with the incumbent.

Restrictions on entrepreneurs and key employees may negatively affect the economy in general and the development of innovations, especially in the digital, pharmaceutical or biotech sectors. When unique entrepreneurial and research assets are locked in, they are not sufficiently used in society, causing welfare losses.

The article presented deals with the issue identified above, and authors intention is to consider whether large firms’ strategy of ‘talent acquisitions’ may lead to antitrust concerns. The authors start with addressing how incumbent firms may purchase, retain and lock in talent through acquiring firms and start-ups. They will also address the conduct of incumbent firms to neutralise nascent ideas and talents through various lock-in efforts. How are such restrictions addressed as ancillary agreements to mergers, and how can the parties to a merger circumvent restrictions found to violate merger or competition law? The article also address the neighbouring and equally important issues of whether firms can lock in and neutralise competitive threats and talent through strategic alliances, R&D collaborations and license agreements\(^1\).

It is of interest show that the conduct of incumbent firms to lock in and neutralise nascent ideas and talent is not addressed under competition law. These set-ups are very rarely scrutinised, even though large incumbent firms are capable — through transactions and collaborations — exclusively obtain relevant research results and unique business ideas, while locking in researchers and inventors. Lastly, it is proposed in the article how the analysis under competition and merger law may be adapted so it addresses

\(^1\) In a recently published FTC report focusing on mergers in the digital sector, several forms of relevant transaction were identified: Voting Security (Control); Voting Security (Minority); Asset transactions; Patent Acquisition; Hiring Event; Non-Corporate Interest (Control); Non-Corporate Interest (Minority); License agreements and transaction in reference to Economic Interest. Cf. ‘Non-HSR Reported Acquisitions by Select Technology Platforms, 2010-2019: An FTC Study’ 2021. Available at: https://www.ftc.gov/system/files/documents/reports/non-hsr-reported-acquisitions-select-technology-platforms-2010-2019-ftc-study/p201201technologyplatformstudy2021.pdf (accessed: 01.11.2022)
these concerns, to more adequately encourage innovation and competition. Author’s proposal (that authors freely admit requires further analysis and development), is to view researchers and key individuals as innovation assets — and to recognise these assets on the R&D markets that they de facto are active on. This would enable analysis of if incumbent firms are essentially vacuuming the relevant R&D markets and creating dead zones devoid of any new ideas.

1. Talent Acquisition

In recent years companies are paying more attention to the promising ideas and researchers within their fields. In various technology and pharmaceutical environments, firms are buying talent — rather than a customer base and products. Cases where companies make M&A deals to get a management or R&D team are common on digital markets and markets with a strong innovative component. For example, Google and Apple have the tendency to acquire both talent and technology at a share that exceeds 70%. Microsoft acquired technology in approximately 99% of its acquisitions, but it acquired talent in approximately 50% of its M&A deals. On the other hand, Facebook, tended to acquire talent through its acquisitions, at a rate of more than 92%, while technology transfer only occurred about half the time [Parker G., Petropoulos G., Van Alstyne M., 2021: 1316].

The Merriam-Webster Dictionary defines an asset as a valuable person or thing\(^2\). Talent employees are the key intangible asset. In 1999 the management guru Peter Drucker drew conclusion that the most valuable asset of a 21st-century institution (whether business or nonbusiness) will be its knowledge employees [Drucker P., 1999: 91]. Those talents refer to more than just investment but also the ability to manage and grow an asset management business [Haitao L. et al., 2011: 60]. The main argument of this article is that talent acquisition leads to significant assets concentration and may harm innovations and competition.

It seems that when a company purchases research or management team talent, it accumulates one of the most valuable assets in the digital economy era — the key employees’ research, tacit knowledge and experience. This can strengthen a company’s competitive advantage in the market. The company often gains new knowledge and takes a step up the knowledge ladder, getting closer to marketing for example new drugs or tech services

\(^2\) Available at: https://www.merriam-webster.com/dictionary/asset (accessed: 14.11.2022)
to their customer base. When such practices are common, it may negatively affect the economy and development of innovations, especially in the digital, pharmaceutical or biotech sector. Big companies can acquire the talent from their competitors or potential competitors (with highly substitutable technologies) in order to protect their market position and eliminate the market competition threat. This section describes how talent acquisition may lead to antitrust concerns, killer acquisitions or even dead zones in the markets.

Axel Gautier and Joe Lamesch in considering the large companies’ strategies found that most acquisitions were undertaken to strengthen innovation efforts by purchasing R&D talent. The empirical study showed that 60% of start-up acquisitions led to a discontinuation of the purchased brand’s service. These results clearly indicated that companies were buying talent, rather than a customer base [Gautier A., Lamesch J., 2020: 4]. Moreover, they showed that many purchasers created benefits and welfare for both the parties involved and society at large. Researchers, focusing on corporate and start-up collaborations, outlined that the practice of acquiring a company specifically to access its talent has become a crucial acquisition strategy in digital businesses, more so than acquisition of technology or other assets. Sometimes they identified hiring talents one of the factors motivating start-up acquisitions. Castanias and Helfat emphasised top management as a key resource for sustained competitive advantages for a firm [Castanias R., Helfat C., 1991: 155].

Still, considerable evidence suggests that large companies use acquisitions to consolidate their position on the market, gaining competitive advantages. The acquiring firms, purchasing management teams and key researchers, increase their market power. Jaclyn Selby and Kyle Mayer, showing distinct benefits of talent acquisitions, relied on the hypothesis that firms were increasingly engaging in acquisitions of start-ups with the intention to acquire talented employees to help solve problems needing innovative solutions [Selby J., Mayer K., 2013: 5]. Acquisitions within core and adjacent markets, to complement internal innovations, can provide access to cutting-edge technology, while neutralising potential competitive threats. Since a start-up firm’s most valuable asset is its human capital,
acquiring a start-up company serves as an alternative way to capture new talent. It seems that talent acquirers obtain the following significant competitive advantages:

First, hiring by acquisition may save money and time, particularly when hiring or training is costly or slow, when a firm is seeking employees with unique or valuable skills, or when bringing in teams has advantages over hiring employees individually on the labour market. Some companies systematically engage in acquisition to obtain a larger skilled workforce [Ouimet P., Zarutskie R., 2011: 2].

Second, acquiring companies gain employees with particular skills to create a product that interests consumers. This includes not only specific mental and social abilities, but also tacit knowledge. Coff suggests that general human assets can be a valuable source of business advantages if they are rare, have no strategic substitutes, and the firm can retain them over time [Coff R., 1997: 378]. Talent acquisition enables the buyer to leverage the skills of its new, experienced employees to enter a new space quickly, even if the buyer is inexperienced in that market.

Third, start-up acquisitions allow the purchaser to strategically select a team of employees who have proven their ability to work together productively. According to several studies, having a well-matched team may increase employee retention. Companies prefer purchasing teams over purchasing individuals due to the manifold benefits of established and highly skilled teams. Growing evidence on peer effects and ‘co-mobility’ suggests that co-workers often prefer to continue working together [Marx M., Timmermans B., 2017: 1120]. Thus, acquisition of an entire team can lead to higher retention of employees [Selby J., Mayer K., 2013: 7, 18]. Firm-specific skills often include tacit knowledge of interpersonal relationships or corporate culture. These are elements of social complexity. Talent teams contribute to competitive advantages thanks to their inimitability, which is based on their intangible, firm-specific and socially complex nature [Hatch N., Dyer J., 2004: 1155]. Coyle and Polsky point out that talent acquisition allows a company to obtain many talents at once. It also allows the buyer to obtain well-functioning team of individuals who will often continue to work as a team, with expertise in a particular field — as opposed to assembling such a team from scratch [Coyle J., Polsky G., 2013: 294, 302].

Indeed, there is a large volume of academic research that points to the fact that talent acquisitions are beneficial for the, often larger, purchaser,
which efficiently acquires entrepreneurial and research skills and simultaneously defuses potential competitive threats. However, can we match these research to practice? Do we see talent acquisitions in, for example, the digital economy and the pharmaceutical industry?

For two decades, a significant number of top technology talent acquisitions in the digital economy have been observed. Facebook, Amazon, Apple, Microsoft, and Alphabet have performed multimillion-dollar acquisitions, most recently to acquire AI-powered businesses with great technical minds employed.

Looking only at the first half of 2020, in the biotechnology and pharma sectors, there are many revealing transactions, such as the purchasing by the American multinational pharmaceutical company Merck (also known as MSD) of the privately-held company Themis, focused on vaccines and immune-modulation therapies for infectious diseases and cancer; the acquisition of Stratos Genomics, an early-stage sequencing technology company by Swiss cancer giant Roche; the purchasing of the USA-based medical technology firm Valeritas Holdings by Danish biotech Zealand Pharma; and the acquisition of the specialty pharmaceutical company Correvio Pharma Corp by global pharmaceutical company Advanz Pharma. Many or all of these transactions had the clear aim to acquire promising research and researchers.

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8 Roche Acquires Stratos Genomics to Further Develop DNA Based Sequencing for Diagnostic Use. Available at: https://www.roche.com/media/releases/med-cor-2020-05-22b.html (accessed: 25.10.2022)


10 Limited to Acquire Specialty Pharmaceutical Company Correvio Pharma Corp. Available at: https://www.advanzpharma.com/news/2020/advanz-pharma-corp-limited-to-acquire-specialty-pharmaceutical-company-correvio-pharma-corp# (accessed: 25.11.2022). Mark Corrigan, Correivo Chief Executive Officer, noted 'talented employees from the two organizations together will deliver increased scale, depth of commercial capability, breadth of geographical reach and complementary business models to bring important medicines to patients across the globe.'
2. Antitrust Harm

As addressed by Eric Posner and Cristina Volpin several years ago, NCAs enable employers to cartelise labour markets\textsuperscript{11}. There are growing concerns about the potential for concentrated market power on labour markets\textsuperscript{12}, especially in niche segments where entrepreneurs and researchers cater to a certain business or technology. As has been shown by this article, concentration and lock-ins in reference to such individuals can moreover harm innovation and the development of a specific industry. If an incumbent firm uses ‘carrot and stick’ packages that include lock-in covenants such as \textit{de jure} or \textit{de facto} NCAs when purchasing or collaborating with new R&D-driven firms, that will deter other firms and investors from entering the relevant labour and innovation market because they will have trouble hiring the individuals who could produce innovations for the future. Furthermore, the individual researchers will be locked in and cannot pose a relevant competitive threat to the incumbents. The incumbent firms will, with this strategy, control the development of the innovations in the business segment, especially if they continuously purchase or enter into new collaborations with promising new R&D start-ups. Thus, NCAs may be used to consolidate or expand power in the labour market [Naidu S., Posner E., Weyl E., 2018: 596], and may, together with other lock-in mechanisms such as delayed milestone remunerations, hamper and stall the relevant input market for innovations and R&D by locking in the key R&D assets, i.e., innovators and researchers.

It should be underlined that the differences between the US and EU are shrinking as regards the matter of identifying antitrust harm in competition in innovation. Both the US agencies and the European Commission have actively considered innovation in a series of recent merger cases. In the EU, these have involved, for example, exploring the possibilities that horizontal mergers would lead to a loss of innovation by eliminating a strong innovator already present on the market or that would likely have entered existing markets or that would have created entirely new value chains, thus preventing consumers from gaining increased choice and variety\textsuperscript{13}.

\begin{itemize}
\item[\textsuperscript{11}] Available at: https://www.concurrences.com/en/review/issues/no-4-2020/droit-et-economie/eric-a-posner (accessed: 27.11.2022)
\item[\textsuperscript{12}] Available at: https://rooseveltinstitute.org/2018/03/05/a-new-study-of-labour-market-concentration/ (accessed 27.11.2022)
\item[\textsuperscript{13}] US cases: Complaint, Amgen Inc., 134 FTC. P.333, 337–339 (identifying a research and development market for inhibitors of cytokines that promote the inflammation of hu-

EU cases: COMP/M. 5675 — Syngenta/Monsanto’s Sunflower Seed Business, Commission decision of 17 November 2010, para 248, 200, 207 (finding that farmers would have suffered from reduced choice); COMP/M.6166 — Deutsche Börse/NYSE Euronext, Commission decision of 1 February 2012, section 11.2.1.3.4, confirmed by Case T-175/12, Deutsche Börse AG v. Commission, ECLI: EU: T: 2015: 148; Case No COMP/ M.7326, Medtronic/Covidien, Commission decision of 28 November 2014; Case No COMP/M.7275, Novartis/GlaxoSmithKline’s oncology business, Commission decision of 28 January 2015; Case No COMP/ M.7559, Pfizer/Hospira, Commission decision of 4 August 2015 Case No COMP/ M.7278, General Electric/Alstom (Thermal Power- Renewable Power & Grid Business), Commission decision of 8 September 2015. CASE M.7932 — Dow/DuPont, Commission decision of 27 March 2017.

14 See: Statement of the FTC in the Matter of Nielsen Holdings N.V. and Arbitron Inc., File No. 131-0058, September 20, 2013; and FTC Press Release, 'FTC Puts Conditions on Nielsen's Proposed $1.26 Billion Acquisition of Abritron' September 20, 2013. See DOJ press release of April 27, 2015, available at <http://www.justice.gov/opa/pr/applied-materials-inc-and-tokyo-electron-ltd-abandon-merger-plans-after-justice-department>. See DOJ Complaint … May 29, 2018, para 61. The DOJ was specifically concerned about loss of innovation competition in the ‘bundle’ of traits and herbicides, recognising the importance of complementarities across these two areas (‘Bayer is motivated to pursue trait research in part because successful commercialisation of a trait will generate additional returns through the sale of the associated herbicide, and vice versa’ (DOJ Competitive Impact Statement, para 22). See also DOJ complaint, para 36 (‘Going forward, competition between Bayer and Monsanto to develop next-generation weed-management systems is likely to increase.’). According to a Bayer strategy document, the company’s number one ‘Must Win Battle’ is to ‘[e]stablish Liberty Link as a foundation trait for broadacre [row] crops and position Liberty herbicide as the superior weed management tool.’ (Liberty is the commercial name of Bayer’s herbicide, and Liberty Link is the name of its genetically modified seeds.) In expressing these concerns, the DOJ specifically emphasised the role of contestability absent the merger, and of greater cannibalisation after the merger: ‘Absent the merger, Bayer and Monsanto would have each incentive to pursue these competing pipeline projects [in next-generation weed management systems] because any new innovation developed would help win market share from the other. In contrast, the merged firm will have different incentives due to heightened concerns that new innovation would simply cannibalize sales.’ DOJ Competitive Impact Statement, para 10.
of the US and EU competition authorities, Giulio Federico, Fiona Morton and Carl Shapiro seem to endorse that there is a general test for establishing whether innovation in the industry as a whole would decrease due to a merger. This could be done, for example, by dividing horizontal pharma merger cases into different groups: product-to-pipeline overlaps; pipeline-to-pipeline overlaps, and, more generally; competition in innovation (e.g., overlap in innovation capabilities). The last group of cases is a result of a general approach where the lessening of innovation in the industry as a whole has been scrutinised [Federico G., Morton F., Shapiro C., 2019: 12].

We propose that the above test can be used when analysing whether lock-in clauses for key researchers, representing R&D assets and innovation capabilities, concentrate competition in innovation or on innovation markets, when used in mergers, strategic alliances, R&D collaborations or license agreements. Long-term lock-in covenants where researchers and other key employees risk losing substantial investments in the project should be regarded as potentially restricting competition in innovation, while making the innovation market and the labour market of researchers and key employees less dynamic and flexible.

Talent acquisitions are a reality seems clear — but what effects do such acquisitions have on the vendor, management and key employees?

3. Non-Compete Provisions and Deferred or Conditional Compensation for the Acquired Firms’ Founders and Key Employees

There are concerns in academic community that systematic talent acquisition in a particular market sector and retention of workers using covenants, such as non-compete and confidentiality clauses, can lead to market concentrations [Marinescu I., Hovenkamp H., 2019: 1056]. Further, when the buyer integrates prominent start-ups and their market developments, this affects the input market of new ideas where it has its core business.

These concerns seem not to be purely academic. According to a recently published report entitled ‘Nearly a Decade of Unreported Acquisitions by the Biggest Technology Companies’, authored by the FTC, where more than 600 transactions in the digital economy were screened, most target firms were found to have been established less than five years before their purchase. The report set out to scrutinise whether non-compete provisions and deferred or conditional compensation to the acquired firms’ founders
and key employees could be identified. More than 75 percent of the analysed transactions included non-compete clauses for the founders and key employees of the acquired entities. Higher value transactions were more likely to involve non-compete clauses\(^\text{15}\). This positive correlation was mainly driven by transactions of $25 million or less. When smaller firms were acquired, the likelihood that employees were transferred to the acquirer was also significantly higher than in other mergers\(^\text{16}\). Based on the report, it seems feasible to draw the conclusion that start-up firms were often acquired by large tech firms that demanded non-compete covenants, with key employees often agreeing to be transferred.

It is clear that entrepreneurs are increasingly aiming to be acquired, instead of running their own competing businesses. Selling a nascent company to for example Google or Facebook could be more attractive than running a business in competition with these firms. However, it should be noted that in order for the entrepreneur/innovator to receive an attractive price, and for there to be strong long-term driving forces to develop new innovations, there must be sufficient competition over each business and its innovations. However, if large incumbent firms gain a reputation of either purchasing all start-ups in a specific field of innovation at a low price or otherwise trying to exclude them from the market, that can make other investors shun start-ups in that field. This would create a so-called killing or dead zone [Rizzo A., 2021: 4]. A dead zone represents a concentration of the purchasing market of start-ups in a specific field of business, but also a concentration of a research field, if the start-ups represent a R&D pole or R&D avenue. This is common in the pharma or biotech sectors, but concentration in input markets can be seen in other areas too.

Labour market concentration, when a small number of companies dominate hiring on the market, is becoming increasingly common in some areas and frequently escapes the attention of antitrust authorities. Concentration resulting from acquisitions of promising firms and start-ups with talented researchers and their retention by large companies may have adverse effects in the economy. Lack of competition on the labour market for researchers or on the R&D market has the same negative effect on production as a


\(^{16}\) Ibid.
lack of competition on the commodity market. The antitrust mechanisms of market definition, concentration measurement and primary case management based on concentration effects and consumer welfare assessments can be adapted to mergers affecting labour markets [Marinescu I., Hovenkamp H., 2019: 1063].

In turn, a company’s dominant position in the labour market allows it to accumulate research teams. Predatory takeovers of R&D teams on one product market will allow the company to concentrate this market’s leading research. Such a high competitive advantage, which may not be expressed in money, can lead to dominance on the input market. It can also lead to dead zones\(^\text{17}\). An example of both killer acquisitions and talent acquisition is the case in 2010 when Facebook bought the file-sharing service Drop.io, or more precisely, most of Drop.io’s technology and assets. Sam Lessin from Drop.io was also moved to Facebook. Drop.io supported saving of all kinds of document types (pictures, video, audio, documents, and more) on a server, for transfer to other users. The company soon shut down all accounts. Also in 2010, there was another case of a killer acquisition of start-up talent. Facebook acquired the social activity and ‘check-in’ service provider Hot Potato. The start-up shut down all operations in about a month and deleted all data. The deal was made with the aim to bring in more talent, rather than to expand a product line\(^\text{18}\).

A purchasing company may nudge an acquired research team to continue working on a start-up project within the company or may complete all the developments of the purchased start-up. Project closure does not always accompany talent acquisition. Sometimes, a team is bought with the intention to acquire a project and continue it. This notwithstanding, there is a group of mergers where incumbent companies buy target start-ups and talents of innovative start-ups to kill their research projects and retain the researchers. In recent years, there has been a significant amount of merger activity involving large firms buying highly valued start-ups, especially in the technology, pharmaceutical and biotechnology sectors. Research has shown that these purchasers have aimed to terminate the research projects and prevent the researchers from continuing to conduct the competing re-


search\textsuperscript{19}. One or more large companies on a market can accumulate the talents of innovative start-ups and discontinue their innovation projects, thus pre-empting future competition\textsuperscript{20}. As shown above, recent economic research of M&A activities led to the conclusion that the concept of ‘killer acquisition’ should perhaps be viewed even more broadly than the definition suggested by Cunningham et al. [Cunningham C. et al., 2020: 31].

Below, the contractual tools available for incumbent firms to purchase start-ups and neutralise competitive threats through killer acquisitions and by creating dead zones are discussed. Thereafter, authors of the article explore, how Big Pharma and Big Tech engage not only in share deals for the acquisition of start-ups, but also in asset deals and in long-term strategic alliances that can include license agreements and R&D collaborations. The research teams of small companies are being poached by pharmaceutical and tech giants and involved in their R&D projects, which may simply be another way to neutralise potentially disruptive technology. Covenants that lock in acquired talents, which will be discussed below, are not only an exacerbating factor in reducing competition, but might also open for killer acquisitions and dead zones.

\section*{4. Ancillary Agreements to Mergers Whereby Key Employees Are Locked in}

An argument that could be put forward in reference to why mergers in R&D-driven industries do not represent a potential antitrust harm is that researchers holding the competition-relevant knowledge can always leave. If they disapprove of a merger, key employees can use their feet and start working for a competitor. However, is that a feasible line of argumentation, or are researchers locked in and retained by Big Pharma firms? Does this occur to such a degree that lock-ins could restrain research or prevent new innovations in a field of R&D?

A rarely researched issue in reference to the regulation of mergers is the lock-in efforts imposed on the vendor and the target’s management, including leading researchers\textsuperscript{21}. When a larger pharma or Big Tech firm


\textsuperscript{20} Ibid.

\textsuperscript{21} It should be clear that the vendor and the leading researcher and management can be the same person. The Commission has accepted longer non-compete provisions if a vendor retains a stake in the business being sold, or when a vendor stays on and becomes part
is acquiring a controlling stake in what is often a smaller R&D-focused firm, the vendors are usually represented in the management and are often key employees in the start-up. They can be retained by covenants in the agreements with the purchaser, requiring them to stay with the company for a certain time after the control of the firm or the relevant research has been transferred to the purchaser. Often, the management is encouraged to invest in or will hold a minority share of the target after the purchaser has obtained control. Having the management act as investors has many advantages. It make them co-investors and co-owners of the success or failure of the company, while also making it possible — through covenants in shareholder agreements — to encompass them with non-compete clauses, confidentiality clauses and other forms of obligations that keep them working exclusively for the target. Indeed, notwithstanding the findings of Cunningham et al., it seems common when a big firm has identified some key employees in a target (often including the inventor) that such individuals are pursued with both carrot and stick to keep working for the target after the merger. Often, the purchaser wants the key individuals not only to hold some shares in the firm, but also to enter into option programmes or purchase options in the firm. Such investments should be perceived as ‘substantial’ by the key individuals, but without them gaining any form of control over the firm. The key employees should thus be presented with a carrot, in the form of an option programme, as well as a stick, in the form of a large personal investment. This will keep them in the firm, while ensuring that the R&D avenues are determined by the purchaser.

When entering such agreements, the individuals can be encompassed, either personally or through holding companies, by non-compete and confidentiality covenants in shareholder agreements or similar collaboration contracts for the joint ownership of the target [Domeij B., 2016: 249]. They will usually commit to staying on in the firm for a period of time, or risk the loss of milestone payments or the personal investments made in share and option programmes. The idea is that the individual should be offered a lucrative programme that will be paid out after a certain period of time (or in milestones) when the firm, the molecule or drug is proven successful, but that the individual also makes a substantial personal investment in this result.

The two ingredients — non-compete clauses and having the key employee investing their own money through a holding company in the project — can work very effectively to keep or lock in key individuals when a target is purchased by a larger firm. The individuals will through their investments be subjected to shareholder agreements that may include non-compete and confidentiality clauses that often go beyond what is in accordance with national labour laws and principles. At the same time, they can be viewed as owners rather than employees of the target under national corporate rules and merger and competition law [Hansen J., Lundgren Ch., 2014: 537].

5. Non-Compete Covenants in M&A Transactions

Given the above, it has a sense to take a closer look at the legal instruments to retain highly skilled talents and prevent researchers from developing their research elsewhere. In accomplishing an acquisition deal, it is common practice to conclude several agreements, including restrictive covenants designed to reinforce retention. Often, this will be done in confidentiality and non-competition agreements (NCAs), but such covenants can also be embedded in attractive retention programmes. NCAs are contractual provisions that normally prohibit vendors, shareholders and employees from working for a competing company or forming a new firm as a competitor in specific industries, with a certain geographical scope for a specified period. Further, not only the employment agreement, but also the shareholder agreement may include non-compete obligations and confidentiality clauses. Non-compete clauses in shareholder agreements impose restrictions on the purchased entity’s owners’ conduct, to prevent a decrease of the acquired business value [Domeij B., 2016: 249].

This raises a question: does this practice promote or reduce competition in the market? In the development of niche or highly advanced technologies and the formation of a crucial role for R&D teams, the retention of researchers may become a significant concern for competition in innovation. Jonathan Pollard (2020) underlined that NCAs must be assessed primarily in terms of antitrust law. If it is unreasonable and unnecessary to protect legitimate business interests, it is illegal and raises an antitrust concern. In some cases, such restraints have a clear goal: to eliminate competition.\footnote{Employee Non-Compete Agreements as Section 1 Antitrust Violations. 2020. Pollard PLLC. Available at: https://www.pollardllc.com/non-compete-agreements-section-1-antitrust-violations/ (accessed: 21.11.2022)}
The cited above research of Eric Posner and Cristina Volpin indicates that NCAs enable employers to cartelise labour markets. There are growing concerns about the potential for concentrated market power to harm innovation and the economy. Also, if a company uses NCAs, new firms will be deterred from entering the labour market because they will have trouble hiring. Thus, NCAs can be used to consolidate or expand power on the labour market [Naidu S., Posner E., Weyl E., 2018: 596]. The lock-in effects of NCAs thus affect not only individual entrepreneurs, being coerced into not starting competing companies, but also the relevant input market for key employees for the industry as a whole. It is necessary to consider, in more detail, what approaches antitrust authorities in different jurisdictions are developing to regulate non-compete covenants and assess their impact on competition.

In the USA non-compete covenants in employment contracts, from an employment law perspective, are regulated at the state level. A very interesting development in that regard is that in California, where non-compete covenants in employment agreements have been declared illegal per se. The prohibition was enacted specifically to encourage more interaction, innovation and competition, and has a profound impact in the high-tech sectors present for example in Silicon Valley.

However, there are US antitrust cases concerning non-compete covenants. Several cases and arguments appear to be in favour of non-compete covenants being regarded as potential violations of Section 1 of the Sherman Act, which prohibits agreements between two or more individuals or independent entities that ‘unreasonably restrain trade’. Thus, the United States

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23 Available at: https://rooseveltinstitute.org/2018/03/05/a-new-study-of-labor-market-concentration (accessed: 9.09.2022)

24 California offers by far the most restrictive reading of NCAs in the US due to public policy concerns. California Business and Professions Code in the section 16600 states: 'Except as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade or business of any kind is to that extent void.' The Supreme Court of California stated that the inclusion of a non-compete agreement creates a significant public policy harm insofar as: 'Every individual possesses as a form of property, the right to pursue any calling, business, or profession he may choose. A former employee has the right to engage in a competitive business for himself and to enter into competition with his former employer, even for the business of those who had formerly been the customers of his former employer, provided that such competition is fairly and legally conducted.' Cont'l Car-Na-Var Corp. v. Moseley, 148 P.2d 9, 12–13 (Cal. 1944).

Court of Appeals, Second Circuit, in the case Newburger, 563 F.2d 1057 (2d Cir. 1977), considering an antitrust counterclaim, stated that if Section 1 of the Sherman Act were to be applied, two lines of inquiry seemed relevant. First, would a restrictive agreement operate in circumstances where the former employer’s actual business interests were not at stake? Post-employment competition restrictions that do not serve a legitimate purpose when adopted are null and void. Second, even if the provision was not overbroad per se, it might still be subject to a rigorous check for unreasonableness. Are the restrictions so burdensome that their anti-competitive purposes and consequences outweigh their justification? Restraints that fail this balancing test might be removed under a rule of reason. One of the most revealing cases was a high-tech employee antitrust litigation. When restrictive covenants in employment agreements raise antitrust concerns, they can also be assessed under Section 5 of the Federal Trade Commission (FTC) Act, which prohibits ‘unfair competition methods’. That provision empowers the FTC to initiate complaints and investigate and enter orders to prevent unfair competition methods. Especially in cases where the market is dominated by the employer requiring non-competition, antitrust claims involving NCAs are more likely to succeed where the employee is highly specialised, in high demand and short supply. It is considered likely that the non-compete restriction harms a public interest in such cases.

Here, the FTC’s decision of September 13, 2019 (Nexus Gas Transmission/DTE Energy) is pivotal. Although a transaction did not in itself raise anti-

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31 Antitrust Considerations in Employment Agreement Non-Compete Clauses. Available at: https://uk.practicallaw.thomsonreuters.com/w-002-2106?transitionType=Default&contextData=(sc.Default)&firstPage=true#co_anchor_a000012 (accessed: 16.11.2022)
32 Ibid.
trust issues\textsuperscript{33}, the FTC required the parties to renegotiate their agreement to sell the pipeline and remove the non-competition clause, which was not reasonably narrow in scope. The FTC barred the parties from entering into a deal before the sales agreement was amended. In its decision, the FTC emphasised that antitrust scrutiny of non-competes in M&A transactions is becoming more important\textsuperscript{34}. Another crucial case started on January 3, 2020, when the FTC issued an administrative complaint challenging Axon Enterprise, Inc.’s finalised acquisition of its body-worn camera systems competitor VieVu, LLC, as well as specific non-compete clauses contained within the parties’ transaction documents\textsuperscript{35}. The clauses included provisions that prohibited VieVu’s owner, Safariland, LLC, from competing (i) in regards to various products and services that Axon supplied, some of which the FTC alleged had no relation to the business being sold, and (ii) for Axon’s customers. These covenants extended ten or more years, which was ‘longer than reasonably necessary’ and, in some cases, were worldwide in scope\textsuperscript{36}. According to the complaint, Axon’s May 2018 acquisition reduced competition on an already concentrated market\textsuperscript{37}. On 9 January 2020, during a workshop dedicated to examining antitrust and consumer protection issues, the FTC emphasised that ‘a non-compete covenant is unreasonably in restraint of trade if (1) the restraint is more significant than is needed to protect the business and goodwill of the employer; or (2) the promise’s need is outweighed by the hardship to the promisor and the likely injury to the public’\textsuperscript{38}. Also, the FTC noted that non-competes


\textsuperscript{34} FTC Approves Final Order Imposing Conditions on NEXUS Gas Transmission, LLC’s Acquisition of Generation Pipeline LLC. Available at: https://www.ftc.gov/news-events/press-releases/2019/09/ftc-puts-conditions-nexus-gas-transmission-lcls-acquisition (accessed: 17.11.2022)


\textsuperscript{37} Axon Enterprise and Safariland, Matter of 2020. Available at: https://www.ftc.gov/enforcement/cases-proceedings/1810162/axonvievu-matter (accessed: 19.11.2022)

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fall under Section 2 of the Sherman Act, according to which it is illegal to ‘monopolize, or attempt to monopolize, … any part of the trade …’\textsuperscript{39}. The latest state enforcement in the USA is moving towards a more proactive position on this issue and increasingly considers NCAs to disrupt competition in markets\textsuperscript{40}. Currently, regulators in the United States exercise close supervision of M&A transactions that significantly reduce competition and create conditions for monopolies. This trend is seen at both state and local levels in the USA. On 19 July 2019, an antitrust complaint was filed to the US District Court for the District of Colorado. It asserted violations under Section 2 of the Sherman Act. The complaint argued that Vail Health had monopolised the market for physical therapy services in Vail Valley, Colorado, which led to increased prices and obstructed competition\textsuperscript{41}. In particular, considering the barriers to entry faced by potential competitors, it was noted that Vail Health had linked about 70\% of the Vail Valley labour market for physical therapists, who are saddled with restrictive non-solicitation or non-compete covenants in their employment contracts with Vail Health\textsuperscript{42}. The adverse impact of Vail Health’s anticompetitive behaviour on competition and consumers was illustrated by the fact that over the preceding three years, three of Vail Health’s competitors have closed their offices in Vail (see below).

In January 2023 the FTC has proposed banning non-compete provisions that prevent employees from working for their employer’s competitors for a certain amount of time after termination. Specifically, the FTC’s new rule would make it illegal for an employer to:

\textsuperscript{39} Ibid.


enter into or attempt to enter into a noncompete with a worker;
maintain a noncompete with a worker; or
represent to a worker, under certain circumstances, that the worker is
subject to a noncompete\textsuperscript{13}.

The non-compete provisions are “exploitative” and unfairly restrict the
ability of 30 million Americans\textsuperscript{44}. According to a study by economists, nearly
20\% of workers in the US. have non-compete clauses in their contracts\textsuperscript{45}. Ac-
cording to experts, in the case of highly skilled employees and workers from
high-tech sectors of the economy, this number could reach 50\%. The FTC is
seeking public comment on the proposed rule, which is based on a prelimi-
nary finding that non-competes constitute an unfair method of competition
and therefore violate Section 5 of the Federal Trade Commission Act\textsuperscript{46}.

The approach of antitrust authorities of European Union member states
to non-competition agreements cannot be tailored to each particular case.
Thus, under for example Decision n°18/01931 of the Paris Court of Appeal
on 19 May 2020, an employer should prove that the company can suffer
practical harm if an employee carries out professional activities in a com-
peting company\textsuperscript{47}.

Under EU competition law, the addressees of the prohibition of anti-
competitive agreements and abuse of dominance are most commonly un-
der takings (firms). However, there are cases where a vendor and/or man-
agement has retained a stake in the business being sold and where NCAs
have been addressed by the authorities.\textsuperscript{48} It can also be considered individ-
uals as undertakings when autonomously offer their services on the labour

\textsuperscript{13} FTC Proposes Rule to Ban Non-compete Clauses, Which Hurt Workers and Harm
releases/2023/01/ftc-proposes-rule-ban-noncompete-clauses-which-hurt-workers-harm-
competition (accessed: 23.11.2022)

\textsuperscript{44} Available at: URL: https://www.vox.com/recode/2023/1/5/23540951/ftc-lina-khan-
non-compete-ban (accessed: 21.09. 2022)

\textsuperscript{45} Available at SSRN: https://ssrn.com/abstract=2625714 (accessed: 23.11.2022)

\textsuperscript{46} FTC Proposes Rule to Ban Non-compete Clauses, Which Hurt Workers and Harm
ftc-proposes-rule-ban-noncompete-clauses-which-hurt-workers-harm-competition
(accessed: 23.11.2022)

\textsuperscript{47} Available at: https://www.dechert.com/content/dam/dechert%20files/knowledge/
pub lication/practical-law--french-q-as-regarding-restrictive-covenants-clauses/2020/
RestrictiveCovenantClausesQAndAFrancePracticalLaw.pdf (accessed: 26.11.2022)

\textsuperscript{48} See generally the EU Jurisdictional Notice 2004.
market. An article 101 TFEU could be applied to non-compete clauses that restrict (potential) self-employed activities as an employee will be affected in her capacity as a potential undertaking⁴⁹.

According to EU competition law, NCAs have been cleared as being ancillary to a merger, during the period that the vendor/management retains a stake in the target and for two or three years thereafter. Similar covenants have been accepted for vendors when they have been retained a right to pick a board member⁵⁰. The NCAs need to encompass firms, while non-compete covenants for individuals are normally addressed only under labour law. However, non-compete covenants can be included in shareholder agreements and extend to individuals, who can sometimes be viewed as undertakings.

According to the Hungarian Competition Authority’s decision regarding the restrictions related to the acquisition of the start-up Code Cool Kft, it was permissible to include restrictive covenants in the sales contract of a start-up enterprise that prevented the inventors and developers of the innovation from competing in the future based on the same idea, even though they did not retain a stake in the start-up. This permission was given to make it more attractive to invest in undertakings of a start-up type and maintain the incentive to innovate. The market value of an undertaking does not necessarily decrease after its sale⁵¹. On the other hand, in July 2020, the Portuguese Competition Authority issued a statement of objections to six companies and six board members of the waste management groups Blueotter and EGEO concerning an NCA⁵². In yet another example, on 29 November 2017, the Swedish Patent and Market Court ruled that five-year non-compete clauses included in share purchase agreements did not constitute an infringement of competition rules⁵³.


⁵³ European Competition Network Brief. ‘The Swedish Patent, and Market Court uphold Stockholm District Court’s decision that Excessively Long Non-Compete Clauses
Currently, as presented brief comparative study shows, NCAs are lawful and enforceable in various jurisdictions as long as they fulfil the applicable conditions. There does not seem to be any criteria that precisely prevents competition from being influenced by talent buying. It seems possible to list the minimum conditions in the NCAs. In this case the antimonopoly authority in each specific case should analyze these conditions and conclude if it harms competition and innovations. Traditionally, provisions regarding non-compete agreements for individuals are enshrined in labour law and not regulated in merger or antitrust legislation. Thus, in India, the antitrust authority’s approach is rather one of deregulation and non-assessment of if NCAs are reasonable. On 26 November 2020, the Competition Commission of India (CCI) amended its regulations, removing the NCA disclosure requirement from merger filings. Earlier, on 15 May 2020, the CCI invited the public to comment on its proposal to remove non-competitive valuation as part of a merger review. The CCI clarified that this was due to such assessments not being practical given the dynamic business environment and the short time frame for considering a merger. For comparison, it is necessary to analyse the CCI’s decision in 2012, regarding the proposed sale by Orchid Chemicals and Pharmaceuticals Ltd (OCPL) of its betaculum API (active pharmaceutical ingredient) business, its manufacturing facilities, another manufacturing facility in Aurangabad and an R&D facility in Chennai, to Hospira Healthcare. There was a significant roadblock to obtaining the CCI’s requisite approval: the non-compete clause in the business transfer agreement. It stipulated that OCPL and one of its promoters could not conduct certain commercial activities concerning the ‘transferred business’ for eight and five years, respectively. The cove
enant also stipulated a restriction on the R&D of specific APIs for injectable formulations. The CCI requested that the duration of non-compete commitments be limited to four years for the domestic market in India and that OCPL should be allowed to conduct research, development, and testing of new molecules that could result in the development of new penem and penicillin APIs for injectable formulations, which were non-existent. Thus, in 2012, the CCI expressed a clear position on non-competitive provisions, demanding changes in order to approve a transaction\(^\text{57}\).

However, this does not mean that NCAs for vendors, board members and shareholders cannot be subject to consideration in the antitrust field. Individuals autonomously offer their services in the labor market. They may be subject to antitrust law that follows from the fact that the purpose of regulating competition is the basic prohibition against monopolization of the market as a method of combating abuse of right. A company’s employees can influence the company’s position in the competitive market by their decisions. Therefore, the manipulation of NCAs in order to retain these individuals in the company can be considered from the perspective of competition law. Several antitrust concerns and adverse effects of NCAs on competition have been discussed above, as well as some indicative antitrust cases. It seems clear that a Big Pharma or Big Tech firm can neutralise a specific start-up as a competitive threat with smart M&A tactics and non-compete and confidentiality covenants. The purchaser could require the vendor to retain a minority share and have the leading inventor subject to a shareholder agreement or put on the board of the post-merger entity. In such cases, NCAs are considered benign by many, if not all, competition authorities, even if they are of long duration and lock in the inventor for an extended period of time\(^\text{58}\). Perhaps this does not pose a problem, and if an individual researcher or inventor agrees to be locked in, he or she should be free to do so. But, as will be discussed below, if this means that an indispensable or necessary R&D asset or inventor is taken out of the relevant research field or R&D market — such covenants should be considered anticompetitive and causing antitrust harm. Thus, there may be a deficit in


\(^{58}\) For example, in South Africa, the antitrust authority has requested companies to consider altering restrictive covenants affecting individuals by shortening the duration of restrictions at the subnational level to no more than three years. Available at: https://uk.practicallaw.thomsonreuters.com/2-504-5969?transitionType=Default&contextData=(sc.Default)&firstPage=true (accessed: 12.12.2022).
competition and merger law concerning regulation of non-compete covenants in these circumstances. On the other hand, antitrust authorities can, should they choose to do so, judge NCAs as not being ancillary to merger deals, within the adequate framework. Also, it is important to note that even when a transaction does not raise antitrust issues, antitrust agencies can still consider transaction agreements not to be ancillary to the transaction. The antitrust authorities should be developing requirements that non-compete covenants should be reasonably 1) protective of the legitimate business interest and 2) limited in time, geographical scope and the market or types of economic activities/services encompassed. We can observe this approach to regulation in Brazil. In 2019, a Note was submitted for Item 4 of the 131st OECD Competition committee meeting on 5–7 June, according to which companies should ensure that non-competition provisions in transaction documents are business-fit and reasonable in duration and scope. According to this Brazilian Note, non-competition clauses can constitute labour market antitrust violations.

It appears that with the increase of the nascent practice of innovator acquisitions and its negative impact on competition, antitrust authorities may need to outstrip legislators and develop approaches for assessing the impact of NCAs on competition.

Based on the above, anti-competitive effects which arise as a result of NCAs might significantly hinder the economy’s innovative development and outweigh any potential benefits (for instance, protection of trade secrets) [Lovells H., 2020: 25]. With digitalisation penetrating all spheres of society and the high value of advanced technologies, the supervision of M&A transactions has become somewhat strengthened. In several jurisdictions, antitrust authorities have begun to realise the significant impact on competition of buying and retaining talent. It is becoming essential to develop a new evaluation approach in competition law, based on practice, and pursue more thorough analysis of one of the leading talent retention instruments in M&A deals — non-compete covenants.

However, tying down of individuals or specialised R&D-driven firms through up-front or de facto non-compete covenants does not need to be

59 Gillis D., Tierney J. Merger Non-Compete Clauses…
done through mergers. Big Pharma or biotech firms often do not need to resort to purchasing promising research results by merging with the often smaller R&D-driven firms. Indeed, there are several other forms of collaboration that the parties can enter where the larger pharma firm is still granted control of the promising research result, while neutralising the competitive threat represented by the start-up. While mergers are sometimes used to exclude certain parts of management (as shown by Cunningham et al.), they — like other forms of collaborations — may be built on the active inclusion of the inventor and the R&D start-up. Then, the R&D start-up is controlled through covenants regarding inter alia R&D agreements, exclusive licenses, scholar boards and option programmes. In some jurisdictions, such control would trigger an obligation to notify the collaboration under the merger regime\(^61\), while in others, this would scrutinised ad hoc under the prohibition on anticompetitive agreements\(^62\). Non-compete covenants are the most clear-cut way to control potential competition, but confidentiality agreements and acknowledgement of trade secrets may also be implemented to the same or similar effect.

6. Strategic Alliances, R&D Collaborations and License Agreements

As stated above, one of the results of the trend for specialisation by firms in the pharma and biotech sector is the great increase in the amount of technology transfer, licenses and collaborations entered into by independent parties [Robinson D., Stuart T., 2007: 559]. Today, not even the largest pharmaceutical firms conduct research, develop and market drugs and treatments in-house. Instead, we are seeing an increase in collaborations in the form of license agreements, R&D ventures and co-marketing agreements to develop and market new research result into drugs. Generally, pharma and biotech firms are collaborating more and more and thus are

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\(^{61}\) See for example the recently published FTC report focusing mergers in the digital sector, several forms of relevant transaction were identified: Voting Security (Control); Voting Security (Minority); Asset transactions; Patent Acquisition; Hiring Event; Non-Corporate Interest (Control); Non-Corporate Interest (Minority); License agreements and transaction in reference to Economic Interest. Cf. Non-HSR Reported Acquisitions by Select Technology Platforms, 2010-2019: An FTC Study 2021. Available at: https://www.ftc.gov/system/files/documents/reports/non-hsr-reported-acquisitions-select-technology-platforms-2010-2019-ftc-study/p201201technologyplatformstudy2021.pdf (accessed: 16.12.2022)

\(^{62}\) For instance, under EU merger law.
entering into more and more agreements on the creation, facilitation and transfer of patents, molecules, knowledge and technologies. Such exchange or transfer of information and ideas, coupled with both complex agreements with terms, obligations and covenants that may exclude and restrict the parties and the market transparency due to the patent and market approval procedures, creates a rather distinctive setting for this industry [Arnold K. et al., 2002: 1085].

Often before any intellectual property rights have been established, agreements between parties needs to be adjoined with confidentiality obligations. Even after the intellectual property rights (often patents) have been established, confidentiality agreements are important for the protection of the ‘know-how’ that accompanies the patents and are usually included in technology transfer agreements when a substance or molecule is transferred between firms. However, know-how is often retained by key employees.

In the early to middle stages of the development of a molecule, the firms may enter into collaborations regarding R&D. The R&D agreements may be concluded for several reasons. There is a genuine need for a meeting of the minds of researchers to create something. Different firms may hold core knowledge in different parts of the innovation chain, with one firm having developed the research tools that a second firm needs to understand and use. Perhaps there are no intellectual property rights established yet, so any transfer and joint creation of knowledge needs to be boxed in by confidentiality covenants. Moreover, joint R&D agreements often focus on the mechanism for dividing the intellectual property rights once the collaboration has ended.

From the parties’ perspectives, the basis for any form of collaboration in the pharma or biotech sector relies heavily on the ‘license agreement’. In fact, there are numerous sorts of agreements that pharma and biotech firms may enter, but at the heart of them all, irrespective of what they are called, is often a right or license to use a patent covering a molecule or antidote, to develop and sell a drug or treatment, or an assignment to develop a research result and then license or assign the developed product further. Even share or asset transfer agreements of R&D firms often include elements of assignment of patent rights or licenses, since innovations are the main assets that a purchaser wants to acquire and control, often in conjunction with the transfer of the necessary know-how held by researchers. Indeed, remuneration for shares or assets is often exclusively connected to
milestones for the development of the research into a drug, e.g., clinical testing, successful phase I, phase II, etc.

This notwithstanding, it seems that license agreements with connected collaboration features, *inter alia* setting up a board of academic experts from both the Big Pharma firm (licensee) and the R&D start-up (licensor), are generally more popular than mergers for transferring promising research results\(^{63}\). In both license agreements and alliances, success hinges upon the setting up of a scientific board of experts, including the inventors and other researchers connected to the start-up. They are often retained and must commit to spending a certain number of hours in the strategic alliance and actively pursuing the R&D of the molecule and the project. They will also be encompassed by NCAs.

A licensing agreement in the pharma sector, though not implying a change of control over the firm, may thus often stipulate a transfer of the main assets (molecule and connected know-how) and an in-depth and lengthy collaboration between the parties, including specific covenants that the licensor make specific researchers available to spur the development of the drug. The smaller firm acts as a licensor, while the scientific board is granted the right to decide on the further development of the molecule into a drug. The larger firm is thereby *de facto* granted an exclusive license to develop the substance or molecule further, since they control the majority of the scholar board\(^{64}\).

Still, the smaller firm needs to provide know-how and guidance by granting access to experts to serve on the research board/committee and oversee the development under the license agreement. The collaboration may last for a long period of time, possibly until the end of commercialisation of the drug in every relevant jurisdiction, while the licensee (the Big


\(^{64}\) The licensee, the larger pharma or biotech firm, is generally not bound by a non-compete obligation. On the contrary, the agreements often explicitly state that the licensee is not bound by a non-compete.
Pharma firm) often holds the exclusive prerogative to determine whether, and at what speed, the research result is to be developed.\(^{65}\)

Interestingly, a license and collaboration agreement as presented above is generally more lucrative and less risky for Big Pharma to enter into than being forced to purchase and merge with smaller R&D-intensive firms to gain access to the interesting R&D results. With the use of the \textit{de facto} exclusive license and a collaboration agreement including non-compete covenants, the larger firm will control the start-up, the molecule or substance. The lock-in effects for the R&D-focused firm are also substantial. Often, the Big Pharma firm does not need to transfer an up-front purchase sum when entering into a license agreement. It takes no risk. Instead, remuneration under the license agreement is transferred to the R&D start-up in dispersed milestone payments, connected to the various stages in the development of the drug. This creates incentives (both carrots and sticks) for the inventors and vendors in the start-up to keep working for the development of the molecule or drug, even when the molecule and patents have been exclusively licensed to the Big Pharma firm. Further, it gives the larger firm control over when remuneration has to be paid.

The collaborations falling short of being mergers may not need to be notified under the merger rules in certain jurisdictions, since it is not certain that they represent change of control and the exclusive license does not imply the transfer of a turnover source, as the research result is not yet generating any turnover.\(^{66}\) They might under certain jurisdictions be required to be notified as joint ventures, if they are considered fully functioning or are concentrations (mergers). However, the requirements for ‘fully

\(^{65}\) The licensor should be made aware that it needs to enclose in the agreement hard milestones connected to future dates, so as to push forward the development of the research result. It should be noted that the licensee often has an obligation to return the exclusivity to the licensor should it decide not to pursue the development further. This notwithstanding, there are licensing agreement where there is no one-time up-front payment, with all remuneration to the licensor being triggered by milestones, which the licensee \textit{de facto} decides when to meet.

\(^{66}\) Only exclusive licenses can, in certain cases, trigger an obligation to notify under the EU Jurisdictional Notice 2008, see para 24. A transaction confined to intangible assets such as brands, patents or copyrights may be considered to be a concentration if those assets constitute a ‘business with a market turnover’. In any case, the transfer of licences for brands, patents or copyrights, without additional assets, can only fulfil these criteria if the licences are exclusive, at least in a certain territory, and the transfer of such licences will transfer the turnover-generating activity. As regards non-exclusive licences, it can be excluded that they, \textit{per se}, constitute a business with a market turnover. For an interesting decision in reference to this issue, cf. M.5727 Microsoft/Yahoo! Search business (18 February 2010).
functioning’ joint ventures are high and hard to meet\textsuperscript{67}. Moreover, even if they are notified, the great majority of the collaborations in the pharma sector — reflecting the above scenario — are generally \textit{ex ante} viewed as beneficial for the parties, the industry and society at large. From a competition law perspective, analysing the agreements \textit{ex ante}, such collaborations must often be deemed pro-competitive. Usually, they cannot be regarded anticompetitive — for several reasons. The research conducted by the R&D start-up may be in early stages and there can be great uncertainties regarding whether the research will actually result in an effective drug. The Big Pharma firm is needed to conduct the necessary testing and development of the drug, and the potential killing aspects of the collaboration cannot be detected based on the wording of the collaboration. However, a competition authority’s conclusions in such a case may be based on using the wrong tests and not taking innovation into consideration to the degree needed, because the collaborations can hide efforts by Big Pharma to kill or shelve the promising research result and lock in the researchers. An analysis may reveal that the Big Pharma firm is in fact monopolising the input R&D market, creating a dead zone where no research is conducted. Indeed, such collaboration can be as detrimental to competition and innovation as killer mergers. This will be discussed below.

This notwithstanding, it should be pointed out that the terms and conditions of such collaborations reflect poor business acumen on behalf of the management and owners of the smaller R&D-driven firms, who are often innovators themselves or closely connected to the innovators. In the biotech and pharma industries, researchers often have their main employment at a university. The mergers or license agreements sometime reflects a clash between idealistic researchers and shrewd businessmen. What these collaborations will often \textit{de facto} come to represent is an agreement of transferring know-how and research results with a guarantee from the small R&D-driven firm to exit the research area when the transfer has been completed and the researchers have proven if the molecule is successful or not. Indeed, what they represent from an \textit{ex post} perspective is an agreement not to compete in the future, while the inventors are given remuneration during the period of time that the non-compete obligation is in effect. Of course, innovation for sale must be honoured, and competition authorities need to tread lightly so as not to discourage innovation — but collaborations of this type do not efficiently utilise innovations and researchers.

\textsuperscript{67} See: EU Jurisdictional Notice 2008, para 91 et seq.
Moreover, especially in the pharmaceutical sector, researchers may hold highly unique knowledge and retaining such researchers under non-compete covenants may cause enormous welfare losses, especially if the aim of the R&D collaboration, from the perspective of the larger license, is to stall and eventually kill a potential competing drug.

**Conclusion**

From the above, it seems clear that acquisitions, licensing agreements and R&D collaborations with far-reaching NCAs have been under-regulated in competition law, and that neither US antitrust agencies nor the EU Commission have sufficiently addressed the innovation concerns raised in these regards. The research of Cunningham and his co-authors showed that killer acquisitions do occur, and as licensing and R&D collaborations are more common than mergers, one can presume that killer R&D collaborations and killer license agreements are commonplace. Moreover, the acceptance of large firms’ M&A strategies causes dead zones to emerge, where very little or no entrepreneurial efforts are invested.

Ultimately, we would like to propose how the analysis under competition and merger law could be shifted to address the concerns raised, so as to pursue innovation and competition more adequately. Our proposal, which we freely admit requires further analysis and development, is to view researchers and key individuals as innovation assets — and to recognise these assets on the input markets or R&D markets that they *de facto* are active on. This would enable analysis of if incumbent firms are essentially vacuuming the relevant R&D markets and creating dead zones devoid of any new ideas. Since innovations, R&D and nascent tech service developments are often deployed in narrow R&D avenues, finding the key individuals who are able to pursue similar entrepreneurial efforts can be important. By analysing the labour or R&D asset markets in these narrow avenues, monopolisation or cartelisation of the same can be identified.

**References**


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