Research and development agreements (R&D agreements) are agreements under which two or more parties agree to jointly execute research work and/or jointly develop the results of the research. Such agreements can be highly effective in driving innovation and economic progress as they often combine complementary skills and assets, and thus result in improved or new products and technologies being developed and marketed more cheaply and rapidly than would otherwise be the case. They can also facilitate a wider dissemination of knowledge, which may trigger further innovation.

Accordingly, EU competition law generally accepts that certain contractual restrictions on the parties’ independent activities may be necessary in order to encourage joint R&D initiatives. However, restrictions in R&D agreements are sometimes designed to, or have the effect of, restricting competition. It is therefore essential to carefully analyse an R&D agreement between actual and potential competitors to ensure it does not fall foul of the law.

See further, Applying EU competition law to research and development agreements-worked examples.

Potential competition concerns

Article 101(1) of the Treaty on the Functioning of the European Union (TFEU) prohibits agreements, the object or effect of which is to restrict competition.

References:
Art 101(1) TFEU

Most R&D agreements do not fall under Article 101(1) TFEU, in particular where they relate to cooperation in R&D at an early stage, far removed from the exploitation of possible results.

References:
EU horizontal guidelines, para 129

However, R&D agreements may sometimes infringe Article 101(1) TFEU in the following ways:

• first, they may reduce or slow down innovation, leading to fewer or inferior products coming to the market later than they otherwise would

• second, if the parties are competitors on a product or technology market, the agreement may reduce significantly competition between them outside the scope of the agreement, or it may make anti-competitive coordination between them likely, thereby leading to higher prices

• third, where at least one party has a significant degree of market power (which does not necessarily amount to dominance) the agreement may result in other competitors’ access to a key technology being foreclosed, thus enabling the parties to exclusively exploit the results of that technology to the detriment of other market players.

References:
EU horizontal guidelines, para 127

In assessing the competition risks of an R&D agreement, it is important to identify and define all the markets that may potentially be affected. This involves identifying those products, technologies or R&D efforts that will act as the main competitive constraints on the parties. The relevant market(s) may be:

• an existing market-for example, where the R&D is directed towards slight improvements or variations in a product or technology

• an entirely new market-for example, because the R&D is aimed at creating an innovative product, such as a vaccine for a previously incurable disease

• a market somewhere in between the above two extremes-for example, where the R&D results in a product or technology which, over time, replaces existing ones (such as MP3 players replacing CDs). In these circumstances, the EU Horizontal Guidelines (the guidelines) state that a careful analysis of those situations may have to cover both existing markets and the impact of the agreement on innovation; and/or

• a neighbouring product or technology market-eg where the R&D concerns an input into those markets.
Framework for assessing R&D agreements

The following steps should be followed to determine whether an R&D agreement complies with Article 101(1) TFEU:

- First, all horizontal agreements between the companies engaging in the joint R&D should be assessed according to the European Commission’s guidelines on assessing the compatibility of an individual horizontal agreement with Article 101(1) TFEU.

References:
EU horizontal guidelines
- This involves applying to each horizontal agreement the general assessment criteria described in the Guidelines, including determining whether the R&D agreement is caught by Article 101(1) TFEU in the first place; see further, Competition issues impacting horizontal commercial agreements.

- Second, where the parties’ combined market share does not exceed 25%, it should be determined whether the conditions of the European Commission’s block exemption regulation regarding R&D agreements are fulfilled. An agreement that benefits from the R&D Block Exemption, the conditions for which are considered below, will be automatically valid and enforceable as a matter of EU competition law.

References:
Regulation 1217/2010
- Third, if an agreement falls outside the R&D Block Exemption, a case-by-case analysis is required to ensure it does not violate competition law. This involves applying the specific assessment criteria described in the Guidelines in relation to R&D agreements, considered below.

- Finally, even if the above assessment leads to the conclusion that the R&D agreement does not give rise to competition concerns, it will be necessary to examine all relevant vertical agreements between the parties (if any) for potential competition issues there. The latter assessment will follow the rules of the European Commission’s Block Exemption Regulation on Vertical Restraints (the ‘Vertical Block Exemption’) and accompanying guidelines (the ‘Guidelines on Vertical Restraints’). See further Competition issues impacting vertical commercial agreements.

References:
Commission Regulation (EU) 330/2010
EU vertical restraints guidelines

Application of R&D block exemption

For an agreement to benefit from automatic exemption under the R&D Block Exemption:

- the parties’ combined market share must fall within the specified threshold
- the agreement must fall within one of six defined categories of agreement
- the agreement must meet certain ‘conditions for exemption’; and
- the agreement must not contain any ‘hardcore restrictions’.

Market share threshold

The Guidelines recognise that R&D agreements are only likely to give rise to restrictive effects on competition where the parties have market power on the existing markets and/or competition with respect to innovation is appreciably reduced.

There is no absolute threshold above which it can be presumed that an R&D agreement creates or maintains market power. However, if the parties are actual or realistic potential competitors, they will be able to benefit from the safe harbour of the R&D Block Exemption if, at the time the agreement was entered into, their combined market share did not exceed 25% of the relevant market for the products capable of being improved or replaced by the contract products.

References:
Commission Regulation (EU) 1217/2010, art 4(2)
If the parties to the agreement are not actual or (realistic) potential competitors, they can benefit from the R&D Block Exemption regardless of their market share.

References:

Type of agreement

The agreement must fall into one of the following six categories to benefit from exemption:

References:
Commission Regulation (EU) 1217/2010, arts 1(1)(a) and 2(1)
- ‘pure’ R&D agreements, that is, involving the joint R&D of contract products or contract technologies, but excluding the joint exploitation of the results of that R&D
- agreements involving both joint R&D and the joint exploitation of the results of that R&D (‘exploitation of the results’ means the production or distribution of the contract products, the application of the contract technologies, the assignment or licensing of intellectual property rights, or the communication of know-how required for such manufacture or application)
- agreements involving the joint exploitation of the results of joint R&D carried out pursuant to a prior agreement between the same parties
- agreements involving both paid-for R&D and the joint exploitation of the results of that paid-for R&D (‘paid-for R&D’ means R&D that is carried out by one party and financed by a financing party)
- agreements involving the joint exploitation of the results of paid-for R&D carried out pursuant to a prior agreement between the same parties; or
- agreements involving only paid-for R&D, excluding the joint exploitation of the results of that R&D.

Conditions for exemption

The agreement must meet the following conditions:

References:
Commission Regulation (EU) 1217/2010, art 3
Research and development agreements

No challenge obligations which prohibit either party from
where the parties limit their
rights of exploitation, access to the results for the purposes of
exploitation may be limited accordingly.

If compensation for access to the results (for the purposes of
further R&D or exploitation) is agreed, it must not be so high as
to effectively impede such access.

Where the agreement provides only for joint R&D, it must
stipulate that each party must be granted access to any
pre-existing knowhow of the other parties, if this knowhow is
indispensable for the purposes of its exploitation of the results.
If compensation is agreed for giving access to pre-existing
knowhow, it must not be so high as to effectively impede such
access.

Any joint exploitation may only pertain to results which
are protected by intellectual property rights or constitute
knowhow and which are indispensable for the manufacture
of the contract products or the application of the contract

If the parties have allocated between them individual tasks or
imposed restrictions upon each other regarding the exploitation
of the results, and one party has been charged with the
manufacture of the products, that party must be required
to fulfil orders for supplies of the products from the other
parties, except where the R&D agreement also provides for
joint distribution or the parties have agreed that only the party
manufacturing the contract products may distribute them.

No hardcore restrictions

The agreement must also not contain any so-called 'hardcore'
restrictions. These are restrictions that are considered so
obviously anti-competitive as to be presumed to be caught by
the Article 101(1) TFEU prohibition, regardless of the parties’
market shares. They include:

References:
Commission Regulation (EU) 1217/2010, art 5

Non-compete restrictions limiting the freedom of the parties
to carry out R&D independently or in cooperation with third
parties in a field unconnected with that to which the R&D
agreement in question relates or, after the completion of the
joint R&D or the paid-for R&D, in the field to which it relates or in
a connected field.

Quantitative restrictions on output or sales, subject to very
limited exceptions (including production targets or sales
targets under certain circumstances, restrictions where the
parties have allocated between them individual tasks such as
production or distribution, or imposed restrictions upon each
other regarding the exploitation of the results, or restrictions on

Excluded restrictions

If the agreement contains any of the following restrictions, they
will be unenforceable (however the rest of the agreement will not
necessarily be unenforceable):

No challenge obligations which prohibit either party from
challenging:

after completion of the R&D, the validity of the parties’
intellectual property rights which are relevant to the R&D, or

after the expiry of the R&D agreement, the validity of the
parties’ intellectual property rights which protect the results of
the R&D,

although the agreement may provide for the possibility of
termination if one of the parties challenges the validity of such
intellectual property rights.

Licensing restrictions which prohibit either party from granting
licences to third parties to manufacture the contract products
or to apply the contract technologies, unless the agreement
provides for the exploitation of the results of the R&D by at
least one of the parties and such exploitation takes place in the
EEA vis-à-vis third parties.
Duration of safe harbour protection

Provided that the market share threshold is not met and the conditions discussed above are fulfilled, the parties can rely on an exemption under the R&D Block Exemption for the entire duration of the joint R&D stage.

Where the R&D agreement extends to joint exploitation, the parties can continue to rely on the R&D Block Exemption for an initial seven-year period from the date the contract products are first put on the market in the EU. Following that seven-year period, the exemption will only be available for as long as the parties’ combined market share does not exceed 25% of the relevant market for the contract products within the EEA.

Application of specific assessment criteria under horizontal guidelines

In cases where an R&D agreement does not benefit from the R&D Block Exemption, an individual analysis is required, taking into account the assessment factors identified in the Guidelines.

Restrictions of competition by object

The Guidelines explain that an R&D agreement will restrict competition ‘by object’ if it does not truly concern joint R&D, but serves as a tool to engage in a disguised cartel, that is, prohibited price-fixing, output limitation or market allocation.

References:
EU horizontal guidelines, para 128

An agreement containing any of these hardcore restrictions will be automatically void and unenforceable.

Restrictive effects on competition

The Guidelines lay out the following guiding principles:

References:
EU horizontal guidelines, para 135

Market power—if an agreement falls outside the R&D Block Exemption because the parties’ combined market share exceeds 25%, it will not necessarily give rise to restrictive effects on competition. However, the stronger the parties’ combined position on existing markets and/or the more competition in innovation is restricted, the more likely it is that the R&D agreement can cause restrictive effects on competition.

Nature of parties’ competitive relationship—the Guidelines clarify that the competitive relationship between the parties needs to be analysed in the context of affected existing markets and/or innovation, and potential competition between them needs to be realistic. The decisive question is whether each party independently has the necessary means as regards assets, knowhow and other resources to carry out the R&D If, objectively, the answer is ‘no’, the R&D agreement will normally not have any restrictive effects on competition. This could apply, for instance, where the parties bring together complementary skills or resources.

References:
EU horizontal guidelines, para 130

Similarly, where R&D is outsourced to an entity that is not active in the exploitation of the results (such as a specialised company, research institute or academic body), restrictive effects are unlikely due to the complementary nature of the cooperating parties.

References:
EU horizontal guidelines, para 131

Nature and scope of cooperation—generally a distinction should be drawn between pure R&D agreements and agreements providing for more comprehensive cooperation involving different stages of the exploitation of results (that is, licensing, production or marketing).

‘Pure R&D’ agreements which only involve joint R&D but not the joint exploitation of possible results, will rarely give rise to restrictive effects on competition. These will generally only be problematic if competition with respect to innovation may be appreciably reduced, thus leaving only a limited number of credible competing ‘R&D poles’ (in other words, R&D efforts directed towards a certain new product or technology, and the substitutes for that).

References:
EU horizontal guidelines, para 132

By contrast, an agreement involving joint production and/or marketing of a product or technology gives rise to greater risks of restrictive effects (such as higher prices or reduced output, quality or variety) on the existing market.

References:
EU horizontal guidelines, para 137

Regard should also be had to the possible impact on neighbouring markets. Where, for example, the agreement concerns R&D relating to an input for a final product, factors such as the importance of that input in the final product should form part of the assessment.

References:
EU horizontal guidelines, para 136

If the R&D is directed at an entirely new product or technology and thus creates its own entirely new market, restrictive effects such as higher prices on existing markets are considered unlikely. However, in these cases, the analysis needs to focus on possible restrictions of innovation such as on quality and variety of possible future products or technologies or the speed of innovation. Key factors to consider would be whether other competitors would still have access to key inputs or technologies (such as by way of a licence).

References:
EU horizontal guidelines, para 139

Many R&D agreements may have effects on both existing markets and innovation. For example, if significant competitors on an existing technology-market cooperate to develop a new technology which may one day replace the existing technology, their relationship may slow down the development of the new
technology if they have market power on the existing market and a strong position with respect to R&D. Therefore, where both existing and potential future markets may be affected, both need to be assessed having regard to the parties’ market positions, the number of market players or innovators, entry conditions and so on.

References:
EU horizontal guidelines, para 139

Assessment under Article 101(3) TFEU

If an agreement is found to be restrictive of competition within the meaning of Article 101(1) TFEU, it is necessary to determine whether it produces any pro-competitive benefits and to assess whether those pro-competitive benefits outweigh the restrictive effects on competition.

References:
Art 101(1) TFEU

The balancing of restrictive and pro-competitive effects is conducted exclusively within the framework laid down by Article 101(3) TFEU. If the pro-competitive effects do not outweigh a restriction of competition, Article 101(2) TFEU stipulates that the agreement shall be automatically void.

References:
Art 101(3) TFEU
Art 101(2) TFEU

For the general principles as to how to assess an agreement under Article 101(3) TFEU, see further, Competition issues impacting horizontal commercial agreements. With respect to the specific principles applicable to R&D agreements, the Guidelines provide the following:

• any restrictions on competition must be indispensable—ie not go beyond what is necessary to achieve the efficiency gains generated by the R&D agreement.

References:
EU horizontal guidelines, para 142
• efficiency gains must be passed on to consumers to an extent that it outweighs the restrictive effects on competition. For example, the introduction of an improved product must outweigh any price increases or other restrictive effects. The Guidelines indicate that, generally speaking, it is more likely that an R&D agreement will bring about efficiency gains that benefit consumers if the R&D agreement results in the combination of complementary skills and assets.

References:
EU horizontal guidelines, para 142

• the criteria of Article 101(3) TFEU cannot be met if the parties are afforded the possibility of eliminating competition in respect of a substantial part of the products (or technologies) in question.

References:
EU horizontal guidelines, para 144

The Guidelines also detail in what context (in terms of timing) this assessment should be carried out, including how the European Commission would be likely to apply Article 101(3) TFEU to particular exclusivity provisions imposed to guard against risks such as sunk investments in a project.

See further, Individual Exemptions under Article 101(3) TFEU and Applying Article 101(3) TFEU—case study.

R&D agreements can be very beneficial for consumers and markets, as well as the parties concerned. However, an R&D agreement (or material parts of it) found to be restrictive of competition within the meaning of Article 101(1) TFEU, which is, or are not saved, by Article 101(3) TFEU, will be automatically void and unenforceable.