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⁽¹⁾ Text with EEA relevance

I

(Legislative acts)

DIRECTIVES

DIRECTIVE 2012/5/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 14 March 2012

amending Council Directive 2000/75/EC as regards vaccination against bluetongue

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 43(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

Acting in accordance with the ordinary legislative procedure ⁽²⁾,

Whereas:

(1) Council Directive 2000/75/EC of 20 November 2000 laying down specific provisions for the control and eradication of bluetongue ⁽³⁾ lays down control rules and measures to combat and eradicate bluetongue, including rules on the establishment of protection and surveillance zones and the use of vaccines against bluetongue.

(2) In the past, only sporadic incursions of certain serotypes of the bluetongue virus were recorded in the Union. Those incursions mainly occurred in the southern parts of the Union. However, since the adoption of Directive 2000/75/EC, and particularly since the introduction into

the Union of bluetongue virus serotypes 1 and 8 in the years 2006 and 2007, the bluetongue virus has become more widespread in the Union, with the potential to become endemic in certain areas. It has therefore become difficult to control the spread of that virus.

(3) The rules on vaccination against bluetongue laid down in Directive 2000/75/EC are based on experience of the use of so-called 'modified live vaccines', or 'live attenuated vaccines', which were the only vaccines available when that Directive was adopted. The use of those vaccines may lead to an undesired local circulation of the vaccine virus in unvaccinated animals.

(4) In recent years, as a result of new technology, 'inactivated vaccines' against bluetongue have become available which do not pose the risk of undesired local circulation of the vaccine virus to unvaccinated animals. The extensive use of such vaccines during the vaccination campaign in the years 2008 and 2009 has led to a significant improvement in the disease situation. It is now widely accepted that vaccination with inactivated vaccines is the preferred tool for the control of bluetongue and for the prevention of clinical disease in the Union.

(5) In order to ensure better control of the spread of the bluetongue virus and to reduce the burden on the agricultural sector posed by that disease, it is appropriate to amend the current rules on vaccination laid down in Directive 2000/75/EC in order to take account of the recent technological developments in vaccine production.

(6) In order to enable the vaccination season 2012 to benefit from the new rules, this Directive should enter into force on the day following its publication in the *Official Journal of the European Union*.

(7) The amendments provided for in this Directive should make the rules on vaccination more flexible and also take into account the fact that inactivated vaccines that can also be successfully used outside areas subject to animal movement restrictions are now available.

⁽¹⁾ OJ C 132, 3.5.2011, p. 92.

⁽²⁾ Position of the European Parliament of 7 April 2011 (not yet published in the Official Journal) and position of the Council at first reading of 15 December 2011 (OJ C 46 E, 17.2.2012, p. 15). Position of the European Parliament of 14 February 2012 (not yet published in the Official Journal).

⁽³⁾ OJ L 327, 22.12.2000, p. 74.

- (8) In addition, and provided that appropriate precautionary measures are taken, the use of live attenuated vaccines should not be excluded, as their use might still be necessary under certain circumstances, such as following the introduction of a new bluetongue virus serotype against which inactivated vaccines may not be available.
- (9) Directive 2000/75/EC should therefore be amended accordingly,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Directive 2000/75/EC is hereby amended as follows:

- (1) in Article 2, the following point is added:

(j) "live attenuated vaccines": vaccines which are produced by adapting bluetongue virus field isolates through serial passages in tissue culture or in embryonated hens' eggs.;

- (2) Article 5 is replaced by the following:

'Article 5

1. The competent authority of a Member State may decide to allow the use of vaccines against bluetongue provided that:

- (a) such decision is based on the result of a specific risk assessment carried out by the competent authority;
- (b) the Commission is informed before such vaccination is carried out.

2. Whenever live attenuated vaccines are used, Member States shall ensure that the competent authority demarcates:

- (a) a protection zone, consisting of at least the vaccination area;
- (b) a surveillance zone, consisting of a part of the Union territory with a depth of at least 50 kilometres extending beyond the limits of the protection zone.;

- (3) in Article 6(1), point (d) is replaced by the following:

(d) implement the measures adopted in accordance with the procedure laid down in Article 20(2), in particular with regard to the introduction of any vaccination programme or other alternative measures.;

- (4) in Article 8(2), point (b) is replaced by the following:

(b) The surveillance zone shall consist of a part of the Union territory with a depth of at least 50 kilometres extending beyond the limits of the protection zone and in which no vaccination against bluetongue with live attenuated vaccines has been carried out during the previous 12 months.;

- (5) in Article 10, point 2 is replaced by the following:

'2. any vaccination against bluetongue using live attenuated vaccines is prohibited in the surveillance zone.'

Article 2

1. Member States shall adopt and publish, by 23 September 2012 at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall communicate immediately to the Commission the text of those provisions.

They shall apply those provisions from 24 September 2012 at the latest.

When Member States adopt those provisions, they shall contain a reference to this Directive or shall be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 3

This Directive shall enter into force on the day following its publication in the *Official Journal of the European Union*.

Article 4

This Directive is addressed to the Member States.

Done at Strasbourg, 14 March 2012.

For the European Parliament
The President
M. SCHULZ

For the Council
The President
N. WAMMEN

DIRECTIVE 2012/6/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 14 March 2012
amending Council Directive 78/660/EEC on the annual accounts of certain types of companies as
regards micro-entities
(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 50(1) thereof,

Having regard to the proposal from the European Commission,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

Acting in accordance with the ordinary legislative procedure ⁽²⁾,

Whereas:

(1) The European Council of 8 and 9 March 2007 underlined in its conclusions that reducing administrative burdens is important for boosting Europe's economy and that a strong joint effort to reduce administrative burdens within the European Union is necessary.

(2) Accounting has been identified as one of the key areas in which administrative burdens for companies within the Union may be reduced.

(3) Commission Recommendation 2003/361/EC ⁽³⁾ defines micro, small and medium-sized enterprises. However, consultations with Member States have indicated that the size criteria for micro-enterprises in that Recommendation may be too high for accounting purposes. Therefore, a sub-group of micro-enterprises, so-called "micro-entities", should be introduced to cover companies with lower size criteria for balance sheet total and net turnover than those laid down for micro-enterprises.

(4) Micro-entities are in most cases engaged in business at local or regional level with no or limited cross-border activity. In addition, they play an important role in creating new jobs, fostering research and development and creating new economic activities.

(5) Micro-entities have limited resources with which to comply with demanding regulatory requirements. However, they are often subject to the same financial reporting rules as larger companies. Those rules place on them a burden which is not in proportion to their size and is therefore disproportionate for the smallest enterprises as compared to larger ones. Therefore, it should be possible to exempt micro-entities from certain obligations that may impose on them an unnecessarily onerous administrative burden. However, micro-entities should still be subject to any national obligation to keep records showing their business transactions and financial position.

(6) Given that the numbers of companies to which the size criteria set in this Directive will apply will vary greatly from one Member State to another, and given that the activities of micro-entities have no bearing, or only a limited bearing, on cross-border trade or the functioning of the internal market, Member States should take into account the differing impact of those criteria when implementing this Directive at national level.

(7) Member States should take into account the specific conditions and needs of their own markets when making decisions about how or whether to implement a micro-entity regime within the context of Council Directive 78/660/EEC ⁽⁴⁾.

(8) Micro-entities must take account of income and charges relating to the financial year, irrespective of the date of receipt or payment of such income or charges. However, the calculation of prepayments and accrued income and accruals and deferred income can be burdensome for micro-entities. Consequently, Member States should be permitted to exempt micro-entities from calculating and presenting such items, only to the extent that such exemption relates to charges other than the cost of raw materials and consumables, value adjustments, staff costs and tax. In this way, the administrative burden involved in calculating relatively small balances may be reduced.

(9) Publication of annual accounts can be burdensome for micro-entities. At the same time, Member States need to ensure compliance with this Directive. Accordingly, Member States should be permitted to exempt micro-entities from a general publication requirement, provided that balance sheet information is duly filed, in accordance with national law, with at least one designated competent authority and that the information is transmitted to the business register, so that a copy

⁽¹⁾ OJ C 317, 23.12.2009, p. 67.

⁽²⁾ Position of the European Parliament of 10 March 2010 (OJ C 349 E, 22.12.2010, p. 111) and position of the Council at first reading of 12 September 2011 (OJ C 337 E, 18.11.2011, p. 1). Position of the European Parliament of 13 December 2011 (not yet published in the Official Journal) and decision of the Council of 21 February 2012.

⁽³⁾ OJ L 124, 20.5.2003, p. 36.

⁽⁴⁾ OJ L 222, 14.8.1978, p. 11.

should be obtainable upon application. In such cases the obligation laid down in Article 47 of Directive 78/660/EEC to publish any accounting document in accordance with Article 3(5) of Directive 2009/101/EC ⁽¹⁾, would not apply.

- (10) The aim of this Directive is to enable Member States to create a simple financial reporting environment for micro-entities. The use of fair values can result in the need for detailed disclosures to explain the basis on which the fair value of certain items has been determined. Given that the micro-entity regime provides for very limited disclosure by way of notes on the accounts, the users of the accounts of micro-entities would not know whether the amounts presented in the balance sheet and the profit and loss account incorporate fair values. Accordingly, to provide certainty for such users in this regard, Member States should not permit or require micro-entities using any of the exemptions available to them under this Directive to use the fair valuation basis in drawing up their accounts. Micro-entities that wish or need to use fair value will still be able to do so by using other regimes under this Directive where a Member State permits or requires such use.
- (11) When making decisions about how or whether to implement a micro-entity regime within the scope of Directive 78/660/EEC, Member States should ensure that micro-entities that are to be consolidated under Council Directive 83/349/EEC ⁽²⁾ on consolidated accounts avail themselves of accounting data detailed enough for that purpose and that exemptions in this Directive are without prejudice to the obligation to prepare consolidated accounts in accordance with Directive 83/349/EEC.
- (12) Since the objective of this Directive, namely to reduce the administrative burden for micro-entities, cannot be sufficiently achieved by the Member States, and can therefore by reason of its effect be better achieved at Union level, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary to achieve that objective.
- (13) Directive 78/660/EEC should therefore be amended accordingly,

⁽¹⁾ Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 54 of the Treaty, with a view to making such safeguards equivalent (OJ L 258, 1.10.2009, p. 11).

Editorial note: The title of Directive 2009/101/EC has been adjusted to take account of the renumbering of the articles of the Treaty establishing the European Community, in accordance with Article 5 of the Treaty of Lisbon; the original reference was to the second paragraph of Article 48 of the Treaty.

⁽²⁾ OJ L 193, 18.7.1983, p. 1.

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Amendments to Directive 78/660/EEC

Directive 78/660/EEC is hereby amended as follows:

- (1) the following Article is inserted:

"Article 1a

1. Member States may provide for exemptions from certain obligations under this Directive in accordance with paragraphs 2 and 3 in respect of companies which on their balance sheet dates do not exceed the limits of two of the three following criteria (micro-entities):

- (a) balance sheet total: EUR 350 000;
 - (b) net turnover: EUR 700 000;
 - (c) average number of employees during the financial year: 10.
2. Member States may exempt companies referred to in paragraph 1 from any or all of the following obligations:
- (a) the obligation to present 'Prepayments and accrued income' and 'Accruals and deferred income' in accordance with Articles 18 and 21;
 - (b) where a Member State makes use of the option in point (a) of this paragraph, it may permit those companies, only in respect of other charges as referred to in point (b)(vi) of paragraph 3, to depart from Article 31(1)(d) with regard to the recognition of 'Prepayments and accrued income' and 'Accruals and deferred income', provided that this fact is disclosed in the notes on the accounts or, in accordance with point (c) of this paragraph, at the foot of the balance sheet;

- (c) the obligation to draw up notes on the accounts in accordance with Articles 43 to 45, provided that the information required by Article 14 and point (13) of Article 43(1) of this Directive and Article 22(2) of Directive 77/91/EEC ^(*) is disclosed at the foot of the balance sheet;

- (d) the obligation to prepare an annual report in accordance with Article 46 of this Directive, provided that the information required by Article 22(2) of Directive 77/91/EEC is disclosed in the notes on the accounts or, in accordance with point (c) of this paragraph, at the foot of the balance sheet;

(e) the obligation to publish annual accounts in accordance with Articles 47 to 50a, provided that the balance sheet information contained therein is duly filed, in accordance with national law, with at least one competent authority designated by the Member State concerned. Whenever the competent authority is not the central register, commercial register or companies register, as referred to in Article 3(1) of Directive 2009/101/EC (**), the competent authority is required to provide the register with the information filed.

3. Member States may permit companies referred to in paragraph 1:

(a) to draw up only an abridged balance sheet showing separately at least those items preceded by letters in Articles 9 or 10, where applicable. In cases where point (a) of paragraph 2 applies, items E under 'Assets' and D under 'Liabilities' in Article 9 or items E and K in Article 10 shall be excluded from the balance sheet;

(b) to draw up only an abridged profit and loss account showing separately at least the following items, where applicable:

(i) net turnover;

(ii) other income;

(iii) cost of raw materials and consumables;

(iv) staff costs;

(v) value adjustments;

(vi) other charges;

(vii) tax;

(viii) profit or loss.

4. Member States shall not permit or require the application of Section 7a to any micro-entity making use of any of the exemptions provided for in paragraphs 2 and 3.

5. In respect of companies referred to in paragraph 1, annual accounts drawn up in accordance with paragraphs 2, 3 and 4 shall be regarded as giving the true and fair view required by Article 2(3), and consequently Article 2(4) and (5) shall not apply to such accounts.

6. Where on its balance sheet date a company exceeds or ceases to exceed the limits of two of the three criteria set out in paragraph 1, that fact shall affect the application of the derogation provided for in paragraphs 2, 3 and 4 only if it occurs in both the current and the preceding financial year.

7. In the case of those Member States which have not adopted the euro, the amount in national currency equivalent to the amounts specified in paragraph 1 shall be that obtained by applying the exchange rate published in the *Official Journal of the European Union* on the date of the entry into force of any Directive setting those amounts.

8. The balance sheet total referred to in point (a) of paragraph 1 shall consist either of the assets referred to in items A to E under 'Assets' in Article 9 or the assets referred to in items A to E in Article 10. If point (a) of paragraph 2 applies, the balance sheet total referred to in point (a) of paragraph 1 shall consist either of the assets referred to in items A to D under 'Assets' in Article 9 or the assets referred to in items A to D in Article 10.

(*) Second Council Directive 77/91/EEC of 13 December 1976 on coordination of safeguards which, for the protection of the interests of members and others, are required by Member States of companies within the meaning of the second paragraph of Article 54 of the Treaty, in respect of the formation of public limited liability companies and the maintenance and alteration of their capital, with a view to making such safeguards equivalent (OJ L 26, 31.1.1977, p. 1). Editorial note: The title of Directive 77/91/EEC has been adjusted to take account of the renumbering of the articles of the Treaty establishing the European Community, in accordance with Article 12 of the Treaty of Amsterdam and Article 5 of the Treaty of Lisbon; the original reference was to the second paragraph of Article 58 of the Treaty.

(**) Directive 2009/101/EC of the European Parliament and of the Council of 16 September 2009 on coordination of safeguards which, for the protection of the interests of members and third parties, are required by Member States of companies within the meaning of the second paragraph of Article 54 of the Treaty, with a view to making such safeguards equivalent (OJ L 258, 1.10.2009, p. 11).

Editorial note: The title of Directive 2009/101/EC has been adjusted to take account of the renumbering of the articles of the Treaty establishing the European Community, in accordance with Article 5 of the Treaty of Lisbon; the original reference was to the second paragraph of Article 48 of the Treaty.";

(2) in Article 5, paragraph 1 is replaced by the following:

"1. By way of derogation from Article 4(1) and (2), Member States may prescribe special layouts for the annual accounts of investment companies and of financial holding companies provided that those layouts give a view of these companies equivalent to that provided for in Article 2(3). Member States shall not make available the exemptions set out in Article 1a in respect of investment companies or financial holding companies.";

(3) Article 53a is replaced by the following:

"Article 53a

Member States shall not make the exemptions set out in Articles 1a, 11 and 27, points (7a) and (7b) of Article 43(1) and Articles 46, 47 and 51 available in respect of companies whose securities are admitted to trading on a regulated market within the meaning of point (14) of Article 4(1) of Directive 2004/39/EC.".

*Article 2***Transposition**

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive if and when they decide to make use of any option provided for in Article 1a of Directive 78/660/EEC, taking into account in particular the situation at national level regarding the number of companies covered by the size criteria laid down in paragraph 1 of that Article. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

*Article 3***Report**

Not later than 10 April 2017 the Commission shall submit to the European Parliament, the Council and the European Economic and Social Committee a report on the situation of

micro-entities taking account in particular of the situation at national level regarding the number of companies covered by the size criteria and the reduction of administrative burdens resulting from the exemption from the publication requirement.

*Article 4***Entry into force**

This Directive shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

*Article 5***Addressees**

This Directive is addressed to the Member States.

Done at Strasbourg, 14 March 2012.

For the European Parliament

The President

M. SCHULZ

For the Council

The President

N. WAMMEN

DECISIONS

DECISION No 243/2012/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 14 March 2012

establishing a multiannual radio spectrum policy programme

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

After consulting the Committee of the Regions,

Acting in accordance with the ordinary legislative procedure ⁽²⁾,

Whereas:

(1) In accordance with Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) ⁽³⁾, the Commission may submit legislative proposals to the European Parliament and the Council for establishing multiannual radio spectrum policy programmes. Those programmes should set out policy orientations and objectives for the strategic planning and harmonisation of the use of spectrum in accordance with the directives applicable to electronic communications networks and services. Those policy orientations and objectives should refer to the availability and efficient use of the spectrum necessary for the establishment and functioning of the internal market. The Radio Spectrum Policy Programme (hereinafter 'the Programme') should support the goals and key actions outlined in the Commission Communication of 3 March 2010 on the Europe 2020 Strategy and the Commission Communication of 26 August 2010 on 'A Digital Agenda for

Europe', and is included among the 50 priority actions of the Commission Communication of 11 November 2010, 'Towards a Single Market Act'.

(2) This Decision should be without prejudice to existing Union law, in particular Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity ⁽⁴⁾, Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive) ⁽⁵⁾, Directive 2002/20/EC of the European Parliament and of the Council of 7 March 2002 on the authorisation of electronic communications networks and services (Authorisation Directive) ⁽⁶⁾, Directive 2002/21/EC as well as Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) ⁽⁷⁾. This Decision should also be without prejudice to measures taken at national level, in compliance with Union law, that pursue general interest objectives, in particular relating to content regulation and audiovisual policy, and to the right of Member States to organise and use their spectrum for public order and public security purposes and for defence.

(3) Spectrum is a key public resource for essential sectors and services, including mobile, wireless broadband and satellite communications, television and radio broadcasting, transport, radiolocation, and applications such as alarms, remote controls, hearing aids, microphones, and medical equipment. It supports public services, such as security and safety services including civil protection, and scientific activities, such as meteorology, Earth observation, radio astronomy and space research. Easy access to spectrum also plays a role in the provision of electronic communications, in particular for citizens and businesses located in remote and sparsely populated areas, such as rural areas or islands. Regulatory measures on spectrum therefore have economic, safety, health, public interest, cultural, scientific, social, environmental and technical implications.

⁽¹⁾ OJ C 107, 6.4.2011, p. 53.

⁽²⁾ Position of the European Parliament of 11 May 2011 (not yet published in the Official Journal) and position of the Council at first reading of 13 December 2011 (OJ C 46 E, 17.2.2012, p. 1). Position of the European Parliament of 15 February 2012 (not yet published in the Official Journal).

⁽³⁾ OJ L 108, 24.4.2002, p. 33.

⁽⁴⁾ OJ L 91, 7.4.1999, p. 10.

⁽⁵⁾ OJ L 108, 24.4.2002, p. 7.

⁽⁶⁾ OJ L 108, 24.4.2002, p. 21.

⁽⁷⁾ OJ L 108, 24.4.2002, p. 1.

- (4) A renewed economic and social approach with regard to the management, allocation and use of spectrum should be adopted. That approach should have a particular focus directed towards spectrum policy, with the aim to ensure greater spectrum efficiency, better frequency planning and safeguards against anti-competitive behaviour.
- (5) The strategic planning and harmonisation of spectrum use at Union level should enhance the internal market for wireless electronic communications services and equipment as well as other Union policies requiring spectrum use, thus creating new opportunities for innovation and employment creation, and simultaneously contributing to economic recovery and social integration across the Union, while at the same time respecting the important social, cultural and economic value of spectrum.
- (6) The harmonisation of appropriate spectrum use can also be beneficial to the quality of the services provided through electronic communications, and is essential in order to create economies of scale, lowering both the cost of deploying wireless networks and the cost of wireless devices for consumers. To that end, the Union needs a policy programme that covers the internal market in all Union policy areas involving the use of spectrum, such as electronic communications, research, technological development and space, transport, energy and audiovisual policies.
- (7) The Programme should promote competition and contribute to laying the foundation for a genuine single digital market.
- (8) The Programme should, in particular, support the Europe 2020 Strategy, given the huge potential of wireless services to promote a knowledge-based economy, develop and assist sectors relying on information and communications technologies and overcome the digital divide. The growing use of, in particular, audiovisual media services and online content is increasing demand for speed and coverage. It is also a key action in the Digital Agenda for Europe, which aims to deliver fast broadband internet in the future network- and knowledge-based economy, with an ambitious target for universal broadband coverage. Providing the highest possible wired and wireless broadband speeds and capacity contributes to achieving the target of access to broadband at a speed of not less than 30 Mbps for all by 2020 with at least half of Union households having access to broadband at a speed of at least 100 Mbps, and is important for fostering economic growth and global competitiveness, and necessary to achieve the sustainable economic and social benefits of a single digital market. It should also support and promote other Union sectoral policies such as a sustainable environment and economic and social inclusion for all Union citizens. Given the importance of wireless applications for innovation, the Programme is also a key initiative in support of Union policies on innovation.
- (9) The Programme should lay the foundations for a development whereby the Union can take the lead regarding wireless broadband speeds, mobility, coverage and capacity. Such leadership is essential in order to establish a competitive single digital market working to open up the internal market for all Union citizens.
- (10) The Programme should specify guiding principles and objectives up to 2015 for Member States and institutions of the Union, and set out specific implementation initiatives. While spectrum management is still largely a national competence, it should be exercised in compliance with existing Union law and allow for action to pursue Union policies.
- (11) The Programme should also take into account Decision No 676/2002/EC and the technical expertise of the European Conference of Postal and Telecommunications Administrations (hereinafter 'CEPT') so that Union policies which rely on spectrum and have been agreed by the European Parliament and the Council can be implemented by technical implementing measures, noting that such measures can be taken whenever necessary to implement already existing Union policies.
- (12) Easy access to spectrum may require innovative types of authorisation such as collective use of spectrum, or infrastructure sharing, the application of which in the Union could be facilitated by identifying best practices and encouraging information sharing, as well as by defining certain common or converging conditions for the use of spectrum. General authorisations, which are the least onerous type of authorisation, are of particular interest where interference does not risk hampering the development of other services.
- (13) While technologically still in development, so-called 'cognitive technologies' should already be further explored, including by facilitating sharing based on geolocalisation.
- (14) Spectrum rights trading combined with flexible usage conditions could substantially benefit economic growth. Therefore, bands where flexible use has already been introduced by Union law should immediately be made tradable pursuant to Directive 2002/21/EC. The sharing of best practices on authorisation conditions and procedures for such bands and common measures to

prevent accumulation of rights of use of spectrum which may create dominant positions, as well as undue failure to use such rights, would facilitate the coordinated introduction by all Member States of these measures and facilitate acquisition of such rights anywhere in the Union. Collective (or shared) use of spectrum — as an undetermined number of independent users and/or devices to access spectrum in the same range of frequencies at the same time and in a particular geographic area under a well-defined set of conditions — should be fostered where applicable, without prejudice to the provisions of Directive 2002/20/EC with regard to electronic communications networks and services.

(15) As underlined in the Digital Agenda for Europe, wireless broadband is an important means to boost competition, consumer choice and access in rural and other areas where deployment of wired broadband is difficult or not economically viable. However, spectrum management may affect competition by changing the role and power of market players, for example if existing users receive undue competitive advantages. Limited spectrum access, in particular when appropriate spectrum becomes scarcer, can create a barrier to entry for new services or applications and hamper innovation and competition. Acquisition of new rights of use of spectrum, including through spectrum transfer or leasing or other transactions between users, and the introduction of new flexible criteria for spectrum use can have an impact on the existing competitive situation. Member States should therefore take appropriate *ex ante* or *ex post* regulatory measures (such as action to amend existing rights, to prohibit certain acquisitions of rights of use of spectrum, to impose conditions on spectrum hoarding and efficient use such as those referred to in Directive 2002/21/EC, to limit the amount of spectrum available for each undertaking, or to avoid excessive accumulation of rights of use of spectrum) to avoid distortions of competition in line with the principles underpinning Directive 2002/20/EC and Council Directive 87/372/EEC of 25 June 1987 on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community ⁽¹⁾ (the 'GSM' Directive).

(16) The establishment of an inventory of existing spectrum use together with an analysis of technology trends, future needs and demand for spectrum, in particular between 400 MHz and 6 GHz, should allow the identification of frequency bands in which efficiency could be improved, and of spectrum-sharing opportunities, to the benefit of both the commercial and public sectors. The methodology for establishing and maintaining an inventory of existing uses of spectrum should take due account of the administrative burden placed on the administrations and should aim to minimise that burden. Therefore, the information provided by the

Member States pursuant to Commission Decision 2007/344/EC of 16 May 2007 on harmonised availability of information regarding spectrum use within the Community ⁽²⁾ should be taken fully into account when developing the methodology for establishing an inventory of existing uses of spectrum.

(17) Harmonised standards under Directive 1999/5/EC are essential to achieve efficient use of spectrum and should take account of legally defined sharing conditions. European standards for non-radio electric and electronic equipment and networks should also avoid disturbance to spectrum use. The cumulative impact of the increasing volume and density of wireless devices and applications combined with the diversity of spectrum use presents a challenge to current approaches to interference management. These should therefore be examined and reassessed together with receiver characteristics and more sophisticated interference avoidance mechanisms.

(18) Member States should be allowed, where appropriate, to introduce compensatory measures relating to migration costs.

(19) In line with the objectives of the Digital Agenda for Europe, wireless broadband could contribute substantially to economic recovery and growth if sufficient spectrum were made available, rights of use of spectrum were awarded quickly, and trading were allowed to adapt to market evolution. The Digital Agenda for Europe calls for all Union citizens to have access to broadband at a speed of at least 30 Mbps by 2020. Therefore, the spectrum that has already been covered by existing Commission Decisions should be made available under the terms and conditions of those Decisions. Subject to market demand, the authorisation process should be carried out in accordance with Directive 2002/20/EC by 31 December 2012 for terrestrial communications, to ensure easy access to wireless broadband for all, in particular within frequency bands designated by Commission Decisions 2008/411/EC ⁽³⁾, 2008/477/EC ⁽⁴⁾, and 2009/766/EC ⁽⁵⁾. In order to complement terrestrial broadband services and ensure the coverage of most remote Union areas, satellite broadband access could be a fast and feasible solution.

⁽²⁾ OJ L 129, 17.5.2007, p. 67.

⁽³⁾ Commission Decision 2008/411/EC of 21 May 2008 on the harmonisation of the 3 400-3 800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 144, 4.6.2008, p. 77).

⁽⁴⁾ Commission Decision 2008/477/EC of 13 June 2008 on the harmonisation of the 2 500-2 690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community (OJ L 163, 24.6.2008, p. 37).

⁽⁵⁾ Commission Decision 2009/766/EC of 16 October 2009 on the harmonisation of the 900 MHz and 1 800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community (OJ L 274, 20.10.2009, p. 32).

⁽¹⁾ OJ L 196, 17.7.1987, p. 85.

- (20) More flexible arrangements governing the use of spectrum should be introduced, where appropriate, in order to foster innovation and high-speed broadband connections, which enable firms to reduce their costs and increase their competitiveness and make it possible to develop new interactive online services, for example in the fields of education, health and services of general interest.
- (21) Having nearly 500 million people connected to high-speed broadband in Europe would contribute to the development of the internal market, creating a globally unique critical mass of users exposing all regions to new opportunities, giving each user increased value and giving the Union the capacity to be a world-leading knowledge-based economy. The rapid deployment of broadband is therefore crucial for the development of European productivity and for the emergence of new and small enterprises that can be leaders in different sectors, for example healthcare, manufacturing, and the services industry.
- (22) In 2006, the International Telecommunication Union (ITU) estimated that the future spectrum bandwidth requirements for the development of International Mobile Telecommunications-2000 (IMT-2000) and IMT-advanced systems (i.e. 3G and 4G mobile communications) would be between 1 280 and 1 720 MHz in 2020 for the commercial mobile industry for each ITU region including Europe. It should be noted that the lower figure (1 280 MHz) is higher than the requirements for some countries. In addition, there are some countries in which the requirement is larger than the higher figure (1 720 MHz). Both these figures include the spectrum already in use, or planned to be used, for Pre-IMT systems, IMT-2000 and its enhancements. Without freeing up the spectrum required, preferably in a harmonised way at global level, new services and economic growth will be hindered by capacity constraints in mobile networks.
- (23) The 800 MHz band (790-862 MHz) is optimal for the coverage of large areas by wireless broadband services. Building on the harmonisation of technical conditions under Decision 2010/267/EU, and on the Commission Recommendation of 28 October 2009 facilitating the release of the digital dividend in the European Union ⁽¹⁾ calling for analogue broadcasting to be switched off by 1 January 2012, and given rapid national regulatory developments, that band should in principle be made available for electronic communications services in the Union by 2013. In the longer term, additional spectrum could also be envisaged in the light of the results of an analysis of technology trends, future needs and demand for spectrum. Considering the capacity of the 800 MHz band to transmit over large areas, coverage obligations could be attached to rights, where appropriate.
- (24) Increased wireless broadband opportunities are crucial to provide the cultural sector with new distribution platforms, thereby paving the way for the successful future development of that sector.
- (25) Wireless access systems, including radio local area networks, may outgrow their current allocations on an unlicensed basis. The need for and feasibility of extending the allocations of unlicensed spectrum for wireless access systems, including radio local area networks, at 2,4 GHz and 5 GHz, should be assessed in relation to the inventory of existing uses of, and emerging needs for, spectrum, and depending on the use of spectrum for other purposes.
- (26) While broadcasting will remain an important platform for distributing content as it is still the most economical platform for mass-distribution, wired or wireless broadband and other new services provide new opportunities for the cultural sector to diversify its range of distribution platforms, to deliver on-demand services and to tap into the economic potential of the major increase in data traffic.
- (27) In order to focus on the priorities of the multiannual Programme, Member States and the Commission should cooperate to support and achieve the objective of enabling the Union to take the lead in wireless electronic communication broadband services by freeing up sufficient spectrum in cost-efficient bands for those services to be widely available.
- (28) Since a common approach and economies of scale are key to developing broadband communications throughout the Union and to preventing competition distortion and market fragmentation among Member States, certain best practices on authorisation conditions and procedures should be identified in concerted action among Member States and with the Commission. Such conditions and procedures could include coverage obligations, spectrum block size, the timing of granting rights, access to mobile virtual network operators and the duration of rights of use of spectrum. Reflecting the importance of spectrum trading for increasing efficient use of spectrum and developing the internal market for wireless equipment and services, those conditions and procedures should apply to frequency bands that are allocated to wireless communications, and for which rights of use may be transferred or leased.
- (29) Additional spectrum might be needed by other sectors such as transport (for safety, information and management systems), research and development (R&D), e-health, e-inclusion and, if necessary, public protection and disaster relief (PPDR), in view of their increased use of video and data transmission for a quick and efficient service. Optimising synergies

⁽¹⁾ OJ L 308, 24.11.2009, p. 24.

between spectrum policy and R&D activities and carrying out studies of radio compatibility between different spectrum users should help innovation. Moreover, results of research under the Seventh Framework Programme for Research, Technological Development and Demonstration Activities (2007 to 2013) require the examination of the spectrum needs of projects that might have a large economic or investment potential, in particular for SMEs, such as cognitive radio or e-health. Adequate protection against harmful interference should also be ensured to sustain R&D and scientific activities.

- (30) The Europe 2020 Strategy sets environmental objectives for a sustainable, energy-efficient and competitive economy, for example by improving energy efficiency by 20 % by 2020. The information and communication technology sector has a key role to play, as stressed in the Digital Agenda for Europe. Proposed actions include acceleration of the Union-wide deployment of intelligent energy management systems (smart grids and smart metering) using communication capabilities to reduce energy consumption, and the development of intelligent transport systems and intelligent traffic management to reduce carbon dioxide emissions by the transport sector. Efficient use of spectrum technologies could also help reduce energy consumption by radio equipment and limit the environmental impact in rural and remote areas.
- (31) A coherent approach to spectrum authorisation in the Union should take full account of the protection of public health against electromagnetic fields which is essential for citizens' well-being. While observing Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)⁽¹⁾, it is essential to ensure constant monitoring of the ionising and non-ionising effects of spectrum use on health, including the real-life cumulative effects of spectrum use in various frequencies by an increasing number of equipment types.
- (32) Essential general interest objectives such as the safety of life call for coordinated technical solutions for the interworking of safety and emergency services between Member States. Sufficient spectrum should be made available on a coherent basis for the development and free movement of safety services and devices and the development of innovative pan-European or interoperable safety and emergency solutions. Studies have indicated the need for additional harmonised spectrum below 1 GHz to deliver mobile broadband services for PPDR across the Union in the next five to ten years.
- (33) Spectrum regulation has strong cross-border or international dimensions, due to propagation characteristics,

the international nature of markets dependent on radio-based services, and the need to avoid harmful interference between countries.

- (34) According to the relevant case law of the Court of Justice of the European Union, where the subject matter of an international agreement falls partly within the competence of the Union and partly within the competence of the Member States, it is essential to ensure close cooperation between the Member States and the institutions of the Union. That obligation to cooperate, as clarified in well established case law, flows from the principle of unity in the international representation of the Union and its Member States.
- (35) Member States might also need support on frequency coordination in bilateral negotiations with countries neighbouring the Union, including candidate and acceding countries, to meet their obligations under Union law on frequency coordination issues. This should also help avoid harmful interference and improve spectrum efficiency and convergence in spectrum use even beyond Union borders.
- (36) To realise the objectives of this Decision it is important to enhance the current institutional framework for the coordination of spectrum policy and management at the level of the Union, including in matters directly affecting two or more Member States, while taking full account of the competence and expertise of national administrations. Cooperation and coordination are also essential between standardisation bodies, research institutions and CEPT.
- (37) In order to ensure uniform conditions for the implementation of this Decision, implementing powers should be conferred on the Commission. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers⁽²⁾.
- (38) Since the objective of this Decision, namely to establish a multiannual radio spectrum policy programme, cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale of the proposed action, be better achieved at the level of the Union, the Union may adopt measures in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Decision does not go beyond what is necessary in order to achieve that objective.

⁽¹⁾ OJ L 199, 30.7.1999, p. 59.

⁽²⁾ OJ L 55, 28.2.2011, p. 13.

- (39) The Commission should report to the European Parliament and the Council on the results achieved under this Decision, as well as on planned future actions.
- (40) In drawing up its proposal the Commission has taken utmost account of the opinion of the Radio Spectrum Policy Group established by Commission Decision 2002/622/EC ⁽¹⁾,

HAVE ADOPTED THIS DECISION:

Article 1

Aim and scope

1. This Decision establishes a multiannual radio spectrum policy programme for the strategic planning and harmonisation of the use of spectrum to ensure the functioning of the internal market in the Union policy areas involving the use of spectrum, such as electronic communications, research, technological development and space, transport, energy and audiovisual policies.

This Decision shall not affect the sufficient availability of spectrum for other Union policy areas such as civil protection and disaster relief, and the Common Security and Defence Policy.

2. This Decision is without prejudice to existing Union law, in particular to Directives 1999/5/EC, 2002/20/EC and 2002/21/EC, and subject to Article 6 of this Decision, to Decision No 676/2002/EC, and to measures taken at national level, in compliance with Union law.

3. This Decision is without prejudice to measures taken at national level in full compliance with Union law, which pursue objectives of general interest, in particular those relating to content regulation and audiovisual policy.

This Decision is without prejudice to the right of Member States to organise and use their spectrum for public order and public security purposes and for defence. Where this Decision or measures adopted thereunder in the frequency bands specified in Article 6 affect spectrum used by a Member State exclusively and directly for its public security or defence purposes, the Member State may, to the extent necessary, continue to use that frequency band for public security and defence purposes until the systems existing in the band at the date of the entry into force of this Decision or of a measure adopted thereunder, respectively, are phased out. That Member State shall duly notify the Commission of its decision.

Article 2

General regulatory principles

1. Member States shall cooperate with each other and with the Commission in a transparent manner, in order to ensure the consistent application of the following general regulatory principles across the Union:

- (a) applying the most appropriate and least onerous authorisation system possible in such a way as to maximise flexibility and efficiency in spectrum use. Such an authorisation system shall be based on objective, transparent, non-discriminatory and proportionate criteria;
- (b) fostering development of the internal market by promoting the emergence of future Union-wide digital services and by fostering effective competition;
- (c) promoting competition and innovation, taking account of the need to avoid harmful interference and of the need to ensure technical quality of service in order to facilitate the availability of broadband services and to respond effectively to increased wireless data traffic;
- (d) defining the technical conditions of the use of spectrum, taking full account of relevant Union law, including on the limitation of the exposure of the general public to electromagnetic fields;
- (e) promoting technology and service neutrality in the rights of use of spectrum, where possible.

2. For electronic communications, in addition to the general regulatory principles defined in paragraph 1 of this Article, the following specific principles shall apply, in accordance with Articles 8a, 9, 9a and 9b of Directive 2002/21/EC and with Decision No 676/2002/EC:

- (a) applying technology and service neutrality in the rights of use of spectrum for electronic communications networks and services and the transfer or lease of individual rights of use of radio frequencies;
- (b) promoting the harmonisation of use of radio frequencies across the Union, consistent with the need to ensure effective and efficient use thereof;
- (c) facilitating increased wireless data traffic and broadband services, in particular by fostering flexibility, and promoting innovation, taking account of the need to avoid harmful interference and ensure the technical quality of service.

Article 3

Policy objectives

In order to focus on the priorities of this Decision, Member States and the Commission shall cooperate to support and achieve the following policy objectives:

- (a) encourage efficient management and use of spectrum to best meet the increasing demand for use of frequencies reflecting the important social, cultural and economic value of spectrum;

⁽¹⁾ OJ L 198, 27.7.2002, p. 49.

- (b) seek to allocate sufficient and appropriate spectrum in a timely manner to support Union policy objectives and to best meet the increasing demand for wireless data traffic, thereby allowing the development of commercial and public services, while taking into account important general interest objectives such as cultural diversity and media pluralism; to that end, every effort should be made to identify, based on the inventory established pursuant to Article 9, at least 1 200 MHz of suitable spectrum by 2015. That figure includes spectrum already in use;
- (c) bridge the digital divide and contribute to the objectives of the Digital Agenda for Europe, fostering access to broadband at a speed of not less than 30 Mbps by 2020 for all Union citizens and making it possible for the Union to have the highest possible broadband speed and capacity;
- (d) enable the Union to take the lead in wireless electronic communication broadband services by freeing up sufficient spectrum in cost-efficient bands for those services to be widely available;
- (e) secure opportunities for both the commercial as well as public sectors by means of increased mobile broadband capacities;
- (f) promote innovation and investment through enhanced flexibility in the use of spectrum, through a consistent application across the Union of the principles of technology and service neutrality between the technological solutions that may be adopted and through adequate regulatory predictability as provided for, inter alia, in the regulatory framework for electronic communications through the freeing up of harmonised spectrum for new advanced technologies, and through the possibility of trading rights of use of spectrum, thereby creating opportunities for future Union-wide digital services to be developed;
- (g) facilitate easy access to spectrum by harnessing the benefits of general authorisations for electronic communications in accordance with Article 5 of Directive 2002/20/EC;
- (h) encourage passive infrastructure sharing where this would be proportionate and non-discriminatory, as envisaged in Article 12 of Directive 2002/21/EC;
- (i) maintain and develop effective competition, in particular in electronic communication services, by seeking to avoid, through *ex ante* measures or *ex post* remedies, the excessive accumulation of rights of use of radio frequencies by certain undertakings which results in significant harm to competition;
- (j) reduce the fragmentation and fully exploit the potential of the internal market in order to foster economic growth and economies of scale at the level of the Union by enhancing the coordination and harmonisation of technical conditions for the use and availability of spectrum, as appropriate;
- (k) avoid harmful interference or disturbance by other radio or non-radio devices, inter alia, by facilitating the development of standards which contribute to the efficient use of spectrum, and by increasing immunity of receivers to interference, taking particular account of the cumulative impact of the increasing volumes and density of radio devices and applications;
- (l) foster the accessibility of new consumer products and technologies so as to secure consumer endorsement for the transition to digital technology and to secure efficient use of the digital dividend;
- (m) reduce the Union's carbon footprint by enhancing the technical efficiency and energy efficiency of wireless communication networks and equipment.

Article 4

Enhanced efficiency and flexibility

1. Member States, in cooperation with the Commission, shall, where appropriate, foster the collective use of spectrum as well as shared use of spectrum.

Member States shall also foster the development of current and new technologies, for example, in cognitive radio, including those using 'white spaces'.

2. Member States and the Commission shall cooperate to enhance flexibility in the use of spectrum, in order to promote innovation and investment, through the possibility of using new technologies and through the transfer or lease of rights of use of spectrum.

3. Member States and the Commission shall cooperate to foster the development and harmonisation of standards for radio equipment and telecommunications terminals as well as for electric and electronic equipment and networks based, where necessary, upon standardisation mandates from the Commission to the relevant standardisation bodies. Special attention shall also be given to standards for equipment to be used by disabled people.

4. Member States shall foster R&D activities in new technologies such as cognitive technologies and geolocation databases.

5. Member States shall put in place, where appropriate, selection criteria and procedures for granting rights of use of spectrum that promote competition, investment and the efficient use of spectrum as a public good, as well as promoting coexistence between new and existing services and devices. Member States shall promote the ongoing efficient use of spectrum for networks, devices and applications.

6. Where necessary in order to ensure the effective use of rights of use of spectrum and avoid spectrum hoarding, Member States may consider taking appropriate measures, such as financial penalties, incentive fees tools or the withdrawal of rights. Such measures shall be established and applied in a transparent, non-discriminatory and proportionate manner.

7. For electronic communications services, Member States shall, by 1 January 2013, adopt allocation and authorisation measures appropriate for the development of broadband services, in conformity with Directive 2002/20/EC, with the aim of achieving the highest possible capacity and broadband speeds.

8. In order to avoid the possible fragmentation of the internal market due to divergent selection criteria and procedures for harmonised spectrum allocated to electronic communication services and made tradable in all Member States pursuant to Article 9b of Directive 2002/21/EC, the Commission shall, in cooperation with Member States and in accordance with the principle of subsidiarity, facilitate the identification and sharing of best practices on authorisation conditions and procedures and encourage sharing of information for such spectrum to increase consistency across the Union, achieved in line with the principles of technology and service neutrality.

Article 5

Competition

1. Member States shall promote effective competition and shall avoid distortions of competition in the internal market for electronic communications services in accordance with Directives 2002/20/EC and 2002/21/EC.

They shall also take into account competition issues when granting rights of use of spectrum to users of private electronic communication networks.

2. For the purposes of the first subparagraph of paragraph 1 and without prejudice to the application of competition rules and to the measures adopted by Member States in order to achieve general interest objectives in accordance with Article 9(4) of Directive 2002/21/EC, Member States may adopt, inter alia, measures:

- (a) limiting the amount of spectrum for which rights of use are granted to any undertaking, or attaching conditions to such rights of use, such as the provision of wholesale access, national or regional roaming, in certain bands or in certain groups of bands with similar characteristics, for instance the bands below 1 GHz allocated to electronic communication services. Such additional conditions may be imposed only by the competent national authority;
- (b) reserving, if appropriate in regard to the situation in the national market, a certain part of a frequency band or group of bands for assignment to new entrants;
- (c) refusing to grant new rights of use of spectrum or to allow new spectrum uses in certain bands, or attaching conditions to the grant of new rights of use of spectrum or to the authorisation of new spectrum uses, in order to avoid the distortion of competition by any assignment, transfer or accumulation of rights of use;
- (d) prohibiting or imposing conditions on transfers of rights of use of spectrum, not subject to national or Union merger control, where such transfers are likely to result in significant harm to competition;

(e) amending the existing rights in accordance with Directive 2002/20/EC where this is necessary to remedy *ex post* the distortion of competition by any transfer or accumulation of rights of use of radio frequencies.

3. Where Member States wish to adopt any measures referred to in paragraph 2 of this Article, they shall act in conformity with the procedures for the imposition or variation of such conditions on the rights of use of spectrum laid down in Directive 2002/20/EC.

4. Member States shall ensure that the authorisation and selection procedures for electronic communications services promote effective competition for the benefit of citizens, consumers and businesses in the Union.

Article 6

Spectrum needs for wireless broadband communications

1. Member States shall, in cooperation with the Commission, take all steps necessary to ensure that sufficient spectrum for coverage and capacity purposes is available within the Union, in order to enable the Union to have the fastest broadband speeds in the world, thereby making it possible for wireless applications and European leadership in new services to contribute effectively to economic growth, and to achieving the target for all citizens to have access to broadband speeds of not less than 30 Mbps by 2020.

2. In order to promote wider availability of wireless broadband services for the benefit of citizens and consumers in the Union, Member States shall make the bands covered by Decisions 2008/411/EC (3,4-3,8 GHz), 2008/477/EC (2,5-2,69 GHz), and 2009/766/EC (900-1 800 MHz) available under terms and conditions described in those decisions. Subject to market demand, Member States shall carry out the authorisation process by 31 December 2012 without prejudice to the existing deployment of services, and under conditions that allow consumers easy access to wireless broadband services.

3. Member States shall foster the ongoing upgrade, by providers of electronic communications, of their networks to the latest, most efficient technology, in order to create their own spectrum dividends in line with the principles of service and technology neutrality.

4. By 1 January 2013, Member States shall carry out the authorisation process in order to allow the use of the 800 MHz band for electronic communications services. The Commission shall grant specific derogations until 31 December 2015 for Member States in which exceptional national or local circumstances or cross-border frequency coordination problems would prevent the availability of the band, acting upon a duly substantiated application from the Member State concerned.

If a Member State's substantiated cross-border frequency coordination problems with one or more countries, including candidate or acceding countries, persist after 31 December 2015 and prevent the availability of the 800 MHz band, the Commission shall grant exceptional derogations on an annual basis until such problems are overcome.

Member States to which a derogation has been granted under the first or second subparagraph shall ensure that the use of the 800 MHz band does not prevent the availability of that band for electronic communications services other than broadcasting in neighbouring Member States.

This paragraph shall also apply to the spectrum coordination problems in the Republic of Cyprus arising from the fact that the Government of Cyprus is prevented from exercising effective control in part of its territory.

5. Member States shall, in cooperation with the Commission, continuously monitor the capacity requirements for wireless broadband services. On the basis of the results of the analysis referred to in Article 9(4), the Commission shall assess and report to the European Parliament and the Council by 1 January 2015 on whether there is a need for action to harmonise additional frequency bands.

Member States may, where appropriate and in conformity with Union law, ensure that the direct cost of migration or reallocation of spectrum usage is adequately compensated in accordance with national law.

6. Member States shall, in cooperation with the Commission, promote access to broadband services using the 800 MHz band in remote and sparsely populated areas, where appropriate. In doing so, Member States shall examine ways and, where appropriate, take technical and regulatory measures, to ensure that the freeing of the 800 MHz band does not adversely affect programme making and special events (PMSE) users.

7. The Commission shall, in cooperation with Member States, assess the justification and feasibility of extending the allocations of unlicensed spectrum for wireless access systems, including radio local area networks.

8. Member States shall allow the transfer or leasing of rights of use of spectrum in the harmonised bands 790-862 MHz, 880-915 MHz, 925-960 MHz, 1 710-1 785 MHz, 1 805-1 880 MHz, 1 900-1 980 MHz, 2 010-2 025 MHz, 2 110-2 170 MHz, 2,5-2,69 GHz, and 3,4-3,8 GHz.

9. In order to ensure that all citizens have access to advanced digital services including broadband, in particular in remote and sparsely populated areas, Member States and the Commission may explore the availability of sufficient spectrum for the provision of broadband satellite services enabling internet access.

10. Member States shall, in cooperation with the Commission, examine the possibility of spreading the availability and use of picocells and femtocells. They shall take full

account of the potential of those cellular base stations and of the shared and unlicensed use of spectrum to provide the basis for wireless mesh networks, which can play a key role in bridging the digital divide.

Article 7

Spectrum needs for other wireless communication policies

In order to support the further development of innovative audiovisual media and other services to Union citizens, taking into account the economic and social benefits of a single digital market, Member States shall, in cooperation with the Commission, aim at ensuring there is sufficient spectrum available for satellite and terrestrial provision of such services, if the need is clearly substantiated.

Article 8

Spectrum needs for other specific Union policies

1. Member States and the Commission shall ensure spectrum availability and protect the radio frequencies necessary for monitoring the Earth's atmosphere and surface, allowing the development and exploitation of space applications and improving transport systems, in particular for the global civil navigation satellite system established under the Galileo programme⁽¹⁾, for the European Earth monitoring programme (GMES)⁽²⁾, and for intelligent transport safety and transport management systems.

2. The Commission shall, in cooperation with the Member States, conduct studies on saving energy in the use of spectrum in order to contribute to a low-carbon policy, and shall consider making spectrum available for wireless technologies with a potential for improving energy saving and efficiency of other distribution networks such as water supply, including smart energy grids and smart metering systems.

3. The Commission shall, in cooperation with the Member States, seek to ensure that sufficient spectrum is made available under harmonised conditions to support the development of safety services and the free circulation of related devices as well as the development of innovative interoperable solutions for public safety and protection, civil protection and disaster relief.

4. Member States and the Commission shall collaborate with the scientific and academic community to identify a number of research and development initiatives and innovative applications that may have a major socio-economic impact and/or potential for investment and consider the spectrum needs of such applications and, where necessary, consider the allocation of sufficient spectrum to such applications under harmonised technical conditions and with the least onerous administrative burden.

⁽¹⁾ Regulation (EC) No 683/2008 of the European Parliament and of the Council of 9 July 2008 on the further implementation of the European satellite navigation programmes (EGNOS and Galileo) (OJ L 196, 24.7.2008, p. 1).

⁽²⁾ Regulation (EU) No 911/2010 of the European Parliament and of the Council of 22 September 2010 on the European Earth monitoring programme (GMES) and its initial operations (2011 to 2013) (OJ L 276, 20.10.2010, p. 1).

5. Member States shall, in cooperation with the Commission, seek to ensure the necessary frequency bands for PMSE, in accordance with the Union's objectives to improve the integration of the internal market and access to culture.

6. Member States and the Commission shall seek to ensure spectrum availability for radio-frequency identification (RFID) and other 'Internet of Things' (IoT) wireless communication technologies and shall cooperate to foster the development of standards and the harmonisation of spectrum allocation for IoT communication across Member States.

Article 9

Inventory

1. An inventory of existing uses of spectrum, for both commercial and public purposes is hereby established.

The objectives of the inventory shall be:

- (a) to allow the identification of frequency bands in which the efficiency of existing spectrum uses could be improved;
- (b) to help identify frequency bands that could be suitable for reallocation and spectrum-sharing opportunities in order to support Union policies set out in this Decision, while taking into account future needs for spectrum based, inter alia, on consumers' and operators' demand, and of the possibility to meet such needs;
- (c) to help analyse the various types of use of the spectrum by both private and public users;
- (d) to help identify frequency bands that could be allocated or reallocated in order to improve their efficient use, promote innovation and enhance competition in the internal market, to explore new ways for sharing spectrum, to the benefit of both private and public users, while taking into account the potential positive and negative impact of allocation or reallocation of such bands and of adjacent bands on existing users.

2. For the purposes of ensuring the uniform implementation of paragraph 1 of this Article, the Commission, taking utmost account of the views of the Radio Spectrum Policy Group, shall adopt implementing acts by 1 July 2013:

- (a) to develop practical arrangements and uniform formats for the collection and provision of data by the Member States to the Commission on the existing uses of spectrum, provided that the business confidentiality rules under Article 8 of Decision No 676/2002/EC and the right of Member States to withhold confidential information are observed, taking into account the aim of minimising the administrative burden and existing obligations on the Member States under other Union law, in particular obligations to provide specific information;

- (b) to develop a methodology for the analysis of technology trends, future needs and demand for spectrum in Union policy areas covered by this Decision, in particular for those services which could operate in the frequency range from 400 MHz to 6 GHz, in order to identify developing and potential significant uses of spectrum;

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 13(2).

3. The Commission shall administer the inventory referred to in paragraph 1 in accordance with the implementing acts referred to in paragraph 2.

4. The Commission shall conduct the analysis of technology trends, future needs and demand for spectrum in accordance with the implementing acts referred to in point (b) of paragraph 2. The Commission shall submit to the European Parliament and to the Council a report on the results of that analysis.

Article 10

International negotiations

1. In international negotiations relating to spectrum matters, the following principles shall apply:

- (a) if the subject matter of the international negotiations falls within the competence of the Union, the Union position shall be established in accordance with Union law;
- (b) if the subject matter of the international negotiations falls partly within the competence of the Union and partly within the competence of the Member States, the Union and the Member States shall seek to establish a common position in accordance with the requirements of the principle of sincere cooperation.

For the purpose of applying point (b) of the first subparagraph, the Union and the Member States shall cooperate in accordance with the principle of unity in the international representation of the Union and its Member States.

2. The Union shall, upon request, assist Member States with legal, political and technical support to resolve spectrum coordination issues with countries neighbouring the Union, including candidate and acceding countries, in such a way that the Member States concerned can observe their obligations under Union law. In the provision of such assistance, the Union shall use all its legal and political powers to promote the implementation of Union policies.

The Union shall also support efforts by third countries to implement spectrum management that is compatible with that of the Union, so as to safeguard the spectrum policy objectives of the Union.

3. When negotiating bilaterally or multilaterally with third countries, Member States shall be bound by their obligations under Union law. When signing or otherwise accepting any international obligations regarding spectrum, Member States shall accompany their signature or any other act of acceptance by a joint declaration stating that they will implement such international agreements or commitments in accordance with their obligations under the Treaty on European Union and the Treaty on the Functioning of the European Union.

Article 11

Cooperation among various bodies

1. The Commission and the Member States shall cooperate to enhance the current institutional setting, in order to foster coordination at the level of the Union of the management of spectrum, including in matters directly affecting two or more Member States, with a view to developing the internal market and ensuring that the Union's spectrum policy objectives are fully achieved.

2. The Commission and Member States shall encourage standardisation bodies, CEPT, the Commission's Joint Research Centre and all relevant parties to cooperate closely in technical issues to promote the efficient use of spectrum. To that end, they shall maintain a coherent link between spectrum management and standardisation in such a way as to enhance the internal market.

Article 12

Public consultation

Wherever appropriate, the Commission shall organise public consultations to collect the views of all interested parties as well as the views of the public in general on the use of spectrum in the Union.

Article 13

Committee procedure

1. The Commission shall be assisted by the Radio Spectrum Committee established by Decision No 676/2002/EC. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.

2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply. Where the

committee delivers no opinion, the Commission shall not adopt the draft implementing act, and the third subparagraph of Article 5(4) of Regulation (EU) No 182/2011 shall apply.

Article 14

Compliance with policy orientations and objectives

Member States shall apply the policy orientations and objectives set out in this Decision by 1 July 2015 unless otherwise specified herein.

Article 15

Reporting and review

By 10 April 2014, the Commission shall report to the European Parliament and the Council on the activities developed and the measures adopted pursuant to this Decision.

Member States shall provide the Commission with all information necessary for the purpose of reviewing the application of this Decision.

By 31 December 2015, the Commission shall conduct a review of the application of this Decision.

Article 16

Entry into force

This Decision shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

Article 17

Addressees

This Decision is addressed to the Member States.

Done at Strasbourg, 14 March 2012.

For the European Parliament

The President

M. SCHULZ

For the Council

The President

N. WAMMEN

II

(Non-legislative acts)

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) No 244/2012

of 16 January 2012

supplementing Directive 2010/31/EU of the European Parliament and of the Council on the energy performance of buildings by establishing a comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements for buildings and building elements

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings ⁽¹⁾, and in particular Article 5(1) thereof,

Whereas:

(1) Directive 2010/31/EU requires the Commission to establish by means of a delegated act a comparative methodology framework for calculating cost-optimal levels of minimum energy performance requirements for buildings and building elements.

(2) It is the responsibility of Member States to set minimum energy performance requirements for buildings and building elements. The requirements must be set with a view to achieving cost-optimal levels. It is up to the Member States to decide whether the national benchmark used as the final outcome of the cost-optimal calculations is the one calculated for a macro-economic perspective (looking at the costs and benefits of energy efficiency investments for the society as a whole) or a strictly financial viewpoint (looking only at the investment itself). National minimum energy performance requirements should not be more than 15 % lower than the outcome of the cost-optimal results of the calculation taken as the national benchmark. The cost-optimal level shall lie within the range of performance levels where the cost-benefit analysis over the lifecycle is positive.

(3) Directive 2010/31/EU promotes the reduction of energy use in the built environment, but also emphasises that the building sector is a leading source of carbon dioxide emissions.

(4) Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products ⁽²⁾ provides for the establishment of minimum energy performance requirements for such products. When setting national requirements for technical building systems, Member States must take into account the implementing measures established under this Directive. The performances of construction products to be used for the calculations under this Regulation should be determined in accordance with the provisions of Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC ⁽³⁾.

(5) The objective of cost-effective or cost-optimal energy efficiency levels may, in certain circumstances, justify the setting by Member States of cost-effective or cost-optimal requirements for building elements that would in practice raise obstacles for some building design or technical options as well as stimulate the use of energy-related products with better energy performance.

(6) The steps that comprise the comparative methodology framework have been set out in Annex III to Directive 2010/31/EU and include the establishment of reference buildings, the definition of energy efficiency measures to

⁽¹⁾ OJ L 153, 18.6.2010, p. 13.

⁽²⁾ OJ L 285, 31.10.2009, p. 10.

⁽³⁾ OJ L 88, 4.4.2011, p. 5.

be applied to these reference buildings, the assessment of the primary energy demand of these measures and the calculation of the costs (i.e. net present value) of these measures.

- (7) The common framework for the calculation of the energy performance as established in Annex I to Directive 2010/31/EU applies also to the cost-optimal framework methodology for all its steps, in particular the step of the calculation of the energy performance of buildings and building elements.
- (8) For the purpose of adapting the comparative methodology framework to national circumstances, Member States should determine the estimated economic lifecycle of a building and/or building element, the appropriate cost for energy carriers, products, systems, maintenance, operational and labour costs, primary energy conversion factors, and the energy price developments on this point to be assumed for fuels used in their national context for energy used in buildings, taking into account the information provided by the Commission. Member States should also establish the discount rate to be used in both macroeconomic and financial calculations after having undertaken a sensitivity analysis for at least two interest rates for each calculation.
- (9) To ensure a common approach to the application of the comparative methodology framework by the Member States, it is appropriate for the Commission to establish the key framework conditions needed for net present value calculations such as the starting year for calculations, the cost categories to be considered and the calculation period to be used.
- (10) Establishing a common calculation period does not conflict with Member States' right to fix the estimated economic lifecycle of buildings and/or building elements since the latter could both be longer or shorter than the calculation period fixed. The estimated economic lifecycle of a building or building element has only limited influence on the calculation period since the latter is determined rather by the refurbishment cycle of a building, which is the period of time after which a building undergoes a major refurbishment.
- (11) Cost calculations and projections with many assumptions and uncertainties, including for example energy price developments over time, are generally accompanied by a sensitivity analysis to evaluate the robustness of the key input parameters. For the purpose of the cost-optimal calculations, the sensitivity analysis should at least address the energy price developments and the discount rate; ideally the sensitivity analysis should also comprise future technology price developments as input for the review of the calculations.
- (12) The comparative methodology framework should enable Member States to compare the results of the cost-optimal calculations with the minimum energy performance

requirements in force and to use the result of the comparison to ensure that minimum energy performance requirements are set with a view to achieving cost-optimal levels. Member States should also consider setting minimum energy performance requirements at cost-optimal level for those building categories where so far no minimum energy performance requirements exist.

- (13) The cost-optimal methodology is technologically neutral and does not favour one technological solution over another. It ensures a competition of measures/packages/variants over the estimated lifetime of a building or building element.
- (14) The results of the calculations and the input data and assumptions used are to be reported to the Commission as stipulated in Article 5(2) of Directive 2010/31/EU. These reports should enable the Commission to assess and report on the progress made by Member States towards reaching cost-optimal levels of minimum energy performance requirements.
- (15) To limit their administrative burden, it should be possible for Member States to reduce the number of calculations by establishing reference buildings that are representative of more than one building category, without affecting Member States' duty under Directive 2010/31/EU to set minimum energy performance requirements for certain building categories,

HAS ADOPTED THIS REGULATION:

Article 1

Subject matter and scope

In accordance with Article 5 of, and Annexes I and III to, Directive 2010/31/EU, this Regulation establishes a comparative methodology framework to be used by Member States for calculating cost-optimal levels of minimum energy performance requirements for new and existing buildings and building elements.

The methodology framework specifies rules for comparing energy efficiency measures, measures incorporating renewable energy sources and packages and variants of such measures, based on the primary energy performance and the cost attributed to their implementation. It also lays down how to apply these rules to selected reference buildings with the aim of identifying cost-optimal levels of minimum energy performance requirements.

Article 2

Definitions

In addition to the definitions in Article 2 of Directive 2010/31/EU, the following definitions shall apply noting that for the calculation at macroeconomic level applicable charges and taxes are to be excluded:

- (1) *Global cost* means the sum of the present value of the initial investment costs, sum of running costs, and replacement costs (referred to the starting year), as well as disposal costs if applicable. For the calculation at macroeconomic level, an additional cost category *costs of greenhouse gas emissions* is introduced;
- (2) *Initial investment costs* mean all costs incurred up to the point when the building or the building element is delivered to the customer, ready to use. These costs include design, purchase of building elements, connection to suppliers, installation and commissioning processes;
- (3) *Energy costs* mean annual costs and fixed and peak charges for energy including national taxes;
- (4) *Operational costs* mean all costs linked to the operation of the building including annual costs for insurance, utility charges and other standing charges and taxes;
- (5) *Maintenance costs* mean annual costs for measures for preserving and restoring the desired quality of the building or building element. This includes annual costs for inspection, cleaning, adjustments, repair and consumable items;
- (6) *Running costs* mean annual maintenance costs, operational costs and energy costs;
- (7) *Disposal costs* mean the costs for deconstruction at the end-of-life of a building or building element and include deconstruction, removal of building elements that have not yet come to the end of their lifetime, transport and recycling;
- (8) *Annual cost* means the sum of running costs and periodic costs or replacement costs paid in a certain year;
- (9) *Replacement cost* means a substitute investment for a building element, according to the estimated economic lifecycle during the calculation period;
- (10) *Cost of greenhouse gas emissions* means the monetary value of environmental damage caused by CO₂ emissions related to the energy consumption in buildings;
- (11) *Reference building* means a hypothetical or real reference building that represents the typical building geometry and systems, typical energy performance for both building envelope and systems, typical functionality and typical cost structure in the Member State and is representative of climatic conditions and geographic location;
- (12) *Discount rate* means a definite value for comparison of the value of money at different times expressed in real terms;
- (13) *Discount factor* means a multiplicative number used to convert a cash flow occurring at a given point in time to its equivalent value at the starting point. It is derived from the discount rate;
- (14) *Starting year* means the year on which any calculation is based and from which the calculation period is determined;
- (15) *Calculation period* means the time period considered for the calculation usually expressed in years;
- (16) *Residual value* of a building means the sum of the residual values of the building and building elements at the end of the calculation period;
- (17) *Price development* means the development over time of prices for energy, products, building systems, services, labour, maintenance and other costs and can be different from the inflation rate;
- (18) *Energy efficiency measure* means a change to a building resulting in a reduction of the building's primary energy need;
- (19) *Package* means a set of energy efficiency measures and/or measures based on renewable energy sources applied to a reference building;
- (20) *Variant* means the global result and description of a full set of measures/packages applied to a building that can be composed of a combination of measures on the building envelope, passive techniques, measures on building systems and/or measures based on renewable energy sources;
- (21) *Subcategories of buildings* means categories of building types that are more disaggregated according to size, age, construction material, use pattern, climatic zone or other criteria than those established in Annex I(5) to Directive 2010/31/EU. It is for such subcategories that reference buildings are generally established;
- (22) *Delivered energy* means energy, expressed per energy carrier, supplied to the technical building system through the system boundary, to satisfy the uses taken into account (heating, cooling, ventilation, domestic hot water, lighting, appliances, etc.) or to produce electricity;
- (23) *Energy needed for heating and cooling* means heat to be delivered to or extracted from a conditioned space to maintain intended temperature conditions during a given period of time;
- (24) *Exported energy* means energy expressed per energy carrier delivered by the technical building system through the system boundary and used outside the system boundary;
- (25) *Conditioned space* means space where certain ambient parameters such as temperature, humidity etc. are regulated by technical means such as heating and cooling etc.;
- (26) *Energy from renewable sources* means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.

*Article 3***Comparative methodology framework**

1. When calculating cost-optimal levels of minimum energy performance requirements for buildings and building elements, Member States shall apply the comparative methodology framework laid down in Annex I to this Regulation. The framework prescribes calculation of cost-optimal levels for both macroeconomic and financial viewpoints, but leaves it up to the Member States to determine which of these calculations is to become the national benchmark against which national minimum energy performance requirements will be assessed.

2. For the purpose of the calculations, Member States shall:

- (a) take as a starting year for the calculation the year in which the calculation is being performed;
- (b) use the calculation period in Annex I to this Regulation;
- (c) use the cost categories in Annex I to this Regulation;
- (d) use for carbon costing as a minimum lower bound the projected ETS carbon prices as given in Annex II.

3. Member States shall complement the comparative methodology framework by determining for the purpose of the calculations:

- (a) the estimated economic lifecycle of a building and/or building element;
- (b) the discount rate;
- (c) the costs for energy carriers, products, systems, maintenance cost, operational costs and labour costs;
- (d) the primary energy factors;
- (e) the energy price developments to be assumed for all energy carriers taking into account the information in Annex II to this Regulation.

4. Member States shall endeavour to calculate and adopt cost-optimal levels of minimum energy performance requirements in relation to those building categories where so far no specific minimum energy performance requirements exist.

5. Member States shall undertake an analysis to determine the sensitivity of the calculation outcomes to changes in the applied parameters, covering at least the impact of different energy price developments and the discount rates for the macroeconomic and financial calculations, ideally also other parameters which are expected to have a significant impact on the outcome of the calculations such as price developments for other than energy.

*Article 4***Comparison of the calculated cost-optimal levels with current minimum energy performance requirements**

1. Member States shall decide after having calculated the cost-optimal requirement levels both for a macroeconomic

and for a financial perspective, which one is to become the national benchmark and report this decision to the Commission as part of the reporting mentioned pursuant to Article 6.

Member States shall compare the outcome of the calculation chosen as the national benchmark referred to in Article 3 with the current energy performance requirements for the relevant building category.

Member States shall use the result of this comparison to ensure that minimum energy performance requirements are set with a view to achieving cost-optimal levels in accordance with Article 4(1) of Directive 2010/31/EU. Member States are strongly recommended to link fiscal and financial incentives to compliance with the cost-optimal calculation outcome of the same reference building.

2. If a Member States has defined reference buildings in such a way that the result of the cost-optimal calculation is applicable to several building categories, they may use this result to ensure that minimum energy performance requirements are set with a view to achieving cost-optimal levels for all relevant building categories.

*Article 5***Review of the cost-optimal calculations**

1. Member States shall review their cost-optimal calculations in time for the review of their minimum energy performance requirements required by Article 4(1) of Directive 2010/31/EU. For the review, in particular the price developments for the input cost data has to be reviewed and if need be updated.

2. The results of this review shall be transmitted to the Commission in the report provided for by Article 6 of this Regulation.

*Article 6***Reporting**

1. Member States shall report to the Commission all input data and assumptions used for the calculations and the results of those calculations. This report shall include the primary energy conversion factors applied, the results of the calculations at macroeconomic and financial level, the sensitivity analysis referred to in Article 3(5) of this Regulation and the assumed energy and carbon price developments

2. If the result of the comparison referred to in Article 4 of this Regulation shows that the minimum energy performance requirements in force are significantly less energy-efficient than cost-optimal levels of minimum energy performance requirements, the report shall include any justification for the difference. To the extent that the gap cannot be justified, the

report shall be accompanied by a plan outlining appropriate steps to reduce the gap to a non-significant size by the next review. In this regard, the significantly less energy-efficient level of minimum energy performance requirements in force will be calculated as the difference between the average of all the minimum energy performance requirements in force and the average of all cost-optimal levels of the calculation used as the national benchmark of all reference buildings and building types used.

3. Member States can make use of the reporting template provided for in Annex III to this Regulation.

Article 7

Entry into force and application

1. This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

2. It shall apply from 9 January 2013 to buildings occupied by public authorities and from 9 July 2013 to other buildings except for Article 6(1) of this Regulation, which shall enter into force on 30 June 2012, in line with Directive 2010/31/EU EPBD Article 5(2), second paragraph.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 16 January 2012.

For the Commission
The President
José Manuel BARROSO

ANNEX I

Cost-optimal methodology framework

1. ESTABLISHMENT OF REFERENCE BUILDINGS

- (1) Member States shall establish reference buildings for the following building categories:
 1. single-family buildings;
 2. apartment blocks and multifamily buildings;
 3. office buildings.
- (2) In addition to office buildings, Member States shall establish reference buildings for other non-residential building categories listed in Annex I paragraph (5)(d) to (i) to Directive 2010/31/EU for which specific energy performance requirements exist.
- (3) If a Member State is able to demonstrate in the report referred to in Article 6 of this Regulation that an established reference building can be applicable to more than one building category, it may reduce the number of reference buildings used and with that the number of calculations. Member States shall justify this approach on the basis of an analysis showing that a reference building that is used to serve several building categories is representative of the building stock for all the categories covered.
- (4) For each building category, at least one reference building shall be established for new buildings and at least two for existing buildings subject to major renovation. Reference buildings can be established on the basis of building subcategories (e.g. differentiated by size, age, cost structure, construction material, use pattern or climatic zone) that take into account the characteristics of the national building stock. Reference buildings and their characteristics shall correspond to the structure of current or planned energy performance requirements.
- (5) Member States can make use of the reporting template provided in Annex III to report to the Commission the parameters considered in establishing the reference buildings. The underlying data set on the national building stock used for establishing the reference buildings should be communicated to the Commission as part of the report referred to in Article 6. In particular the choice of characteristics that underpin the establishment of reference buildings shall be justified.
- (6) For existing buildings (both residential and non-residential), Member States shall apply at least one measure/package/variant representing a standard renovation necessary to maintain the building/building unit (without additional energy efficiency measures beyond legal requirements).
- (7) For new buildings (both residential and non-residential), the currently applicable minimum energy performance requirements shall constitute the basic requirement to be met.
- (8) Member States shall calculate cost-optimal levels also for minimum performance requirements for building elements installed in existing buildings or shall derive those from the calculations done at buildings level. When setting requirements for building elements installed in existing buildings, the cost-optimal requirements should to the extent possible take into account the interaction of that building element with the entire reference building and other building elements.
- (9) Member States shall endeavour to calculate and set cost-optimal requirements at the level of individual technical building systems for existing buildings or derive these from the calculations done at buildings level not only for heating, cooling, hot water, air-conditioning and ventilation (or a combination of such systems), but also for lighting systems for non-residential buildings.

2. IDENTIFICATION OF ENERGY EFFICIENCY MEASURES, MEASURES BASED ON RENEWABLE ENERGY SOURCES AND/OR PACKAGES AND VARIANTS OF SUCH MEASURES FOR EACH REFERENCE BUILDING

- (1) Energy efficiency measures for both new and existing buildings shall be defined for all input parameters for the calculation that have a direct or indirect impact on the energy performance of the building, including for alternative high-efficiency systems such as district energy supply systems and the other alternatives listed in Article 6 of Directive 2010/31/EU.
- (2) Measures may be bundled to packages of measures or variants. If certain measures are not suitable in a local, economic or climatic context, Member States should indicate this in their reporting to the Commission in accordance with Article 6 of this Regulation.

- (3) Member States shall also identify measures/packages/variants using renewable energy for both new and existing buildings. Binding obligations laid down in the national application of Article 13 of Directive 2009/28/EC of the European Parliament and of the Council ⁽¹⁾ shall be considered as one measure/package/variant to be applied in that Member State.
 - (4) Energy efficiency measures/packages/variants identified for the calculation of cost-optimal requirements shall include measures necessary to meet the currently applicable minimum energy performance requirements. If applicable, they shall also include measures/packages/variants necessary to meet the requirements of national support schemes. Member States shall also include measures/packages/variants necessary to meet the minimum energy performance requirements for nearly zero-energy buildings for new and possibly also existing buildings as defined by Article 9 of Directive 2010/31/EU.
 - (5) If a Member State can demonstrate, by submitting previous cost analyses as part of the reporting referred to in Article 6, that certain measures/packages/variants are far from cost-optimal, these may be excluded from the calculation. However, such measures/packages/variants should be revisited in the next review of the calculations.
 - (6) The selected energy efficiency measures and measures based on renewable energy sources, and packages/variants, shall be compatible with the basic requirements for construction works as listed in Annex I to Regulation (EU) No 305/2011 and specified by Member States. They shall also be compatible with air quality and indoor comfort levels according to CEN standard 15251 on indoor air quality or equivalent national standards. In cases where measures produce different comfort levels, this shall be made transparent in the calculations.
3. CALCULATION OF THE PRIMARY ENERGY DEMAND RESULTING FROM THE APPLICATION OF SUCH MEASURES AND PACKAGES OF MEASURES TO A REFERENCE BUILDING
- (1) The energy performance is calculated in accordance with the common general framework provided in Annex I to Directive 2010/31/EU.
 - (2) Member States shall calculate the energy performance of measures/packages/variants by calculating, for the nationally defined floor area, first the energy needed for heating and cooling. Subsequently the delivered energy for space heating, cooling, ventilation, domestic hot water and lighting systems is calculated.
 - (3) Energy produced onsite shall be deducted from the primary energy demand and delivered energy.
 - (4) Member States shall calculate the resulting primary energy use using primary energy conversion factors established at national level. They shall report to the Commission the primary energy conversion factors in the reporting referred to in Article 6 of this Regulation.
 - (5) Member States shall use:
 - (a) either the relevant existing CEN standards for the calculation of energy performance;
 - (b) or an equivalent national calculation method provided that the latter is in accordance with Article 2(4) and Annex I to Directive 2010/31/EU.
 - (6) Energy performance results shall, for the purpose of the cost-optimal calculation, be expressed in square meters of useful floor area of a reference building and refer to primary energy demand.

4. CALCULATION OF THE GLOBAL COST IN TERMS OF NET PRESENT VALUE FOR EACH REFERENCE BUILDING

4.1. Categories of costs

Member States shall establish and describe the following separate cost categories to be used:

- (a) *Initial investment costs*;
- (b) *Running costs*. These include costs for periodic replacement of building elements and might include, if appropriate, the earnings from energy produced that Member States may take into account in the financial calculation;
- (c) *Energy costs* shall reflect overall energy cost including energy price, capacity tariffs and grid tariffs;
- (d) *Disposal costs* if appropriate.

For the calculation at macroeconomic level, Member States shall in addition establish the cost category:

- (e) *Cost of greenhouse gas emissions*. These shall reflect the quantified, monetised and discounted operational costs of CO₂ resulting from the greenhouse gas emissions in tonnes of CO₂ equivalent over the calculation period.

⁽¹⁾ OJ L 140, 5.6.2009, p. 16.

4.2. General principles for cost calculation

- (1) In projecting energy cost developments, Member States may use the energy price development forecasts in Annex II to this Regulation for oil, gas, coal and electricity, starting with the average absolute energy prices (expressed in euro) for these energy sources in the year of the calculation exercise.

Member States shall also establish national energy price development forecasts for other energy carriers used to a significant extent in their regional/local context and if appropriate also for peak load tariffs. They shall report the projected price trends and the current shares of the different energy carriers in building energy use to the Commission.

- (2) The effect of (expected) future price developments for other than energy costs, replacement of building elements during the calculation period, and disposal costs where applicable, may also be included in the cost calculation. Price developments, including through innovation and adaptation of technologies, have to be taken into account when the calculations are reviewed and updated.
- (3) Cost data for cost categories (a) to (d) shall be market-based and shall be coherent as regards location and time. Costs should be expressed as real costs excluding inflation. Costs shall be assessed at country level.
- (4) When determining the global cost of a measure/package/variant, the following may be omitted:
- (a) costs that are the same for all assessed measures/packages/variants;
 - (b) costs related to building elements which have no influence on the energy performance of a building.

All other costs need to be fully taken into account for the calculation of global costs.

- (5) The residual value shall be determined by a straight-line depreciation of the initial investment or replacement cost of a given building element until the end of the calculation period discounted to the beginning of the calculation period. The depreciation time is determined by the economic lifetime of a building or building element. Residual values of building elements may need to be corrected for the cost of removing them from the building at the end of the estimated economic lifecycle of the building.
- (6) Disposal costs, if applicable, are to be discounted and can be subtracted to the final value. They might need to be first discounted back from the estimated economic lifetime to the end of the calculation period and in a second step discounted back to the beginning of the calculation period.
- (7) At the end of the calculation period, the disposal costs (if applicable) or the residual value of the components and building elements are taken into account to determine the final costs over the estimated economic lifecycle of the building.
- (8) Member States shall use a calculation period of 30 years for residential and public buildings, and a calculation period of 20 years for commercial, non-residential buildings.
- (9) Member States are encouraged to use Annex A to EN 15459 on economical data for building elements when defining estimated economic lifetimes for those building elements. If other estimated economic lifetimes for building elements are established, these should be reported to the Commission as part of the reporting referred to in Article 6. Member States shall define at national level the estimated economic lifecycle of a building.

4.3. Calculation of global costs for a financial calculation

- (1) When determining the global cost of a measure/package/variant for the financial calculation, the relevant prices to be taken into account are the prices paid by the customer including all applicable taxes including VAT and charges. Ideally also the subsidies available for different variants/packages/measures are to be included into the calculation, but Member States can choose to leave subsidies aside, ensuring however that in that case both subsidies and support schemes for technologies, but also possibly existing subsidies for energy prices are taken out.
- (2) Global costs for buildings and building elements shall be calculated by summing the different types of costs and applying to these the discount rate by means of a discount factor so as to express them in terms of value in the starting year, plus the discounted residual value as follows:

$$C_g(\tau) = C_i + \sum_j \left[\sum_{i=1}^{\tau} (C_{a,i}(j) \times R_d(i)) - V_{f,\tau}(j) \right]$$

where:

τ means the calculation period

$C_g(\tau)$ means global cost (referred to starting year τ_0) over the calculation period

- C_1 means initial investment costs for measure or set of measures j
- $C_{a,i}(j)$ means annual cost during year i for measure or set of measures j
- $V_{f,\tau}(j)$ means residual value of measure or set of measures j at the end of the calculation period (discounted to the starting year τ_0).
- $R_d(i)$ means discount factor for year i based on discount rate r to be calculated

as:

$$R_d(p) = \left(\frac{1}{1 + r/100} \right)^p$$

where p means the number of years from the starting period and r means the real discount rate.

- (3) Member States shall determine the discount rate to be used in the financial calculation after having performed a sensitivity analysis on at least two different rates of their choice.

4.4. Calculation of global costs for the macroeconomic calculation

- (1) When determining the global cost for the macroeconomic calculation of a measure/package/variant, the relevant prices to be taken into account are the prices excluding all applicable taxes, VAT, charges and subsidies.
- (2) When determining the global cost at macroeconomic level of a measure/package/variant, in addition to the cost categories listed under 4.1, a new cost category cost of greenhouse gas emissions is to be included so that the adjusted global cost methodology reads as:

$$C_g(\tau) = C_1 + \sum_j \left[\sum_{i=1}^{\tau} (C_{a,i}(j)R_d(i) + C_{c,i}(j)) - V_{f,\tau}(j) \right]$$

where

$C_{c,i}(j)$ means carbon cost for measure or set of measures j during year i .

- (3) Member States shall calculate the cumulated carbon cost of measures/packages/variants over the calculation period by taking the sum of the annual greenhouse gas emissions multiplied by the expected prices per tonne CO₂ equivalent of greenhouse gas emission allowances in every year issued, using as a minimum lower bound initially at least EUR 20 per tonne of CO₂ equivalent until 2025, EUR 35 until 2030 and EUR 50 beyond 2030 in line with current Commission projected ETS carbon price scenarios (measured in real and constant prices EUR 2008, to be adapted to the calculation dates and methodology chosen). Updated scenarios shall be taken into account every time a review of the cost-optimal calculations is carried out.
- (4) Member States shall determine the discount rate to be used in the macroeconomic calculation after having performed a sensitivity analysis on at least two different rates, one of which shall be 3 % expressed in real terms.

5. UNDERTAKING A SENSITIVITY ANALYSIS FOR COST INPUT DATA INCLUDING ENERGY PRICES

The purpose of sensitivity analysis is to identify the most important parameters of a cost optimal calculation. Member States shall perform a sensitivity analysis on the discount rates using at least two discount rates each expressed in real terms for the macroeconomic calculation and two rates for the financial calculation. One of the discount rates to be used for the sensitivity analysis for the macroeconomic calculation shall be 3 % expressed in real terms. Member States shall perform a sensitivity analysis on the energy price development scenarios for all energy carriers used to a significant extent in buildings in their national context. It is recommended to extend the sensitivity analysis also to other crucial input data.

6. DERIVATION OF A COST-OPTIMAL LEVEL OF ENERGY PERFORMANCE FOR EACH REFERENCE BUILDING

- (1) For each reference building, Member States shall compare the global cost results calculated for different energy efficiency measures and measures based on renewable energy sources and packages/variants of those measures.
- (2) In cases where the outcome of the cost-optimal calculations gives the same global costs for different levels of energy performance, Member States are encouraged to use the requirements resulting in lower use of primary energy as the basis for comparison with the existing minimum energy performance requirements.

- (3) Once a decision is taken on whether the macroeconomic or the financial calculation is to become the national benchmark, averages of the calculated cost-optimal energy performance levels for all the reference buildings used, taken together, shall be calculated in order to compare with the averages of the existing energy performance requirements for the same reference buildings. This is to allow the calculation of the gap between existing energy performance requirements and the calculated cost-optimal levels.
-

ANNEX II

Information on estimated long-term energy price developments

For their calculations, Member States may take into account the estimated fuels and electricity price development trends as provided for by the European Commission on a biannually updated basis. These updates are available at the following website: http://ec.europa.eu/energy/observatory/trends_2030/index_en.htm

These trends may be extrapolated beyond 2030 until longer-term projections become available.

Information on estimated long-term carbon price developments

For their macroeconomic calculations, Member States are required to use as a minimum lower bound the projected ETS carbon prices in the Commission reference scenario up to 2050, assuming implementation of existing legislation, but not decarbonisation (first line of table below). The projections currently assume a price per tonne of EUR 20 until 2025, EUR 35 until 2030 and EUR 50 beyond 2030, measured in real and constant prices EUR 2008, to be adapted to the calculation dates and methodology chosen (see table below). Updated scenarios on the carbon prices as provided by the Commission shall be taken into account every time a review of the cost-optimal calculations is carried out.

Carbon price evolution	2020	2025	2030	2035	2040	2045	2050
Reference (frag. action, ref. fossil f. prices)	16,5	20	36	50	52	51	50
Effect. Techn. (glob. action, low fossil f. prices)	25	38	60	64	78	115	190
Effect. Techn. (frag. action, ref. fossil f. prices)	25	34	51	53	64	92	147

Source: Annex 7.10 to <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SEC:2011:0288:FIN:EN:PDF>

ANNEX III

Reporting template that Member States may use for reporting to the Commission pursuant to Article 5(2) of Directive 2010/31/EU and Article 6 of this Regulation

1. REFERENCE BUILDINGS

- 1.1. Report on the reference buildings for all building categories and how they are representative of the building stock by using Table 1 (existing buildings) and Table 2 (new buildings). Additional information may be added in an annex.
- 1.2. Give the definition of the floor area reference used in your country and how it is calculated.
- 1.3. Please list the selection criteria used to define each reference building (both new and existing): e.g. statistical analysis based on use, age, geometry, climate zones, cost structures, construction material, etc., introducing also the indoor and outdoor climatic conditions, and geographic location.
- 1.4. Please indicate whether your reference building is an example building, virtual building, etc.
- 1.5. Please indicate the underlying dataset for the national building stock

Table 1

Reference building for existing buildings (major refurbishment)

For existing buildings	Building geometry ⁽¹⁾	Shares of window area on the building envelope and windows with no solar access	Floor area m ² as used in building code	Description of the building ⁽²⁾	Description of the average building technology ⁽³⁾	Average energy performance kWh/m ² , a (prior to investment)	Component level requirements (typical value)
(1) Single family buildings and subcategories							
Subcategory 1							
Subcategory 2 etc.							
(2) Apartment blocks and multifamily buildings and subcategories							
(3) Office buildings and subcategories							
(4) Other non-residential building categories							

⁽¹⁾ S/V (surface to volume), orientation, area of N/W/S/E facade.⁽²⁾ Construction material, typical air tightness (qualitative), use pattern (if appropriate), age (if appropriate).⁽³⁾ Technical building systems, U values of building elements, windows — area, U value, g value, shading, passive systems, etc.

Table 2

Reference building for new buildings

For new buildings	Building geometry ⁽¹⁾	Shares of window area on the building envelope and windows with no solar access	Floor area m ² as used in building code	Typical energy performance kWh/m ² , a	Component level requirements
(1) Single family buildings and subcategories					
Subcategory 1					
Subcategory 2 etc.					
(2) Apartment blocks and multifamily buildings and subcategories					
(3) Office buildings and subcategories					
(4) Other non-residential building categories					

⁽¹⁾ S/V, area of N/W/S/E facade. To note: the orientation of the building can already constitute an energy efficiency measure in itself in the case of new buildings.

Table 3

Example of a basic reporting table for energy performance relevant data

		Quantity	Unit	Description
Calculation	method and tool(s)			short description of the calculation method adopted (e.g. with reference to EN ISO 13790) and comment on the calculation tool(s) used
	Primary energy conversion factors			values of delivered to primary energy conversion factors (per energy carrier) used for the calculation
Climate condition	location			name of the city with indication of latitude and longitude
	heating degree-days		HDD	to be evaluated according to EN ISO 15927-6, specifying the period of calculation
	cooling degree-days		CDD	
	source of climatic dataset			provide references on climatic dataset used for the calculation
	terrain description			e.g. rural area, sub-urban, urban. Explain if the presence of nearby buildings has been considered or not
Building geometry	Length × Width × Height		m × m × m	related to the heated/conditioned air volume (EN 13790) and considering as 'length' the horizontal dimension of the façade south-oriented

		Quantity	Unit	Description	
	number of floors		—		
	S/V (surface-to-volume) ratio		m ² /m ³		
	ratio of window area over total building envelope area	South		%	
		East		%	
		North		%	
		West		%	
orientation		°	azimuth angle of the South façade (deviation from the South direction of the 'South' oriented façade)		
Internal gains	building utilisation			according to the building categories proposed in Annex 1 to Directive 2010/31/EU	
	average thermal gain from occupants		W/m ²		
	specific electric power of the lighting system		W/m ²	total electric power of the complete lighting system of the conditioned rooms (all lamps + control equipment of the lighting system)	
	specific electric power of electric equipment		W/m ²		
Building elements	average U-value of walls		W/m ² K	weighted U-value of all walls: $U_{wall} = (U_{wall_1} \cdot A_{wall_1} + U_{wall_2} \cdot A_{wall_2} + \dots + U_{wall_n} \cdot A_{wall_n}) / (A_{wall_1} + A_{wall_2} + \dots + A_{wall_n})$; here are: U_{wall_i} = Uvalue of wall type i; A_{wall_i} = total surface of wall type i	
	average U-value of roof		W/m ² K	similar to walls	
	average U-value of basement		W/m ² K	similar to walls	
	average U-value of windows		W/m ² K	similar as for walls; it should take into account the thermal bridge due to the frame and dividers (according to EN ISO 10077-1)	
	thermal bridges	total length		m	
		average linear thermal transmittance		W/mK	
	thermal capacity per unit area	external walls		J/m ² K	to be evaluated according to EN ISO 13786
		internal walls		J/m ² K	
		slabs		J/m ² K	
	type of shading systems				e.g. solar blind, roll-up shutter, curtain, etc.
	average g-value of	glazing		—	total solar energy transmittance of glazing (for radiation perpendicular to the glazing), here: weighted value according to the area of different windows (to be evaluated according to EN 410)
		glazing + shading		—	total solar energy transmittance for glazing and an external solar protection device has to be evaluated according to EN 13363-1/-2
	Infiltration rate (air changes per hour)			1/h	e.g. calculated for a pressure difference inside/outside of 50 Pa

			Quantity	Unit	Description	
Building systems	ventilation system	air changes per hour		1/h		
		heat recovery efficiency		%		
	efficiencies of heating system	generation		%	to be evaluated according to EN 15316-1, EN 15316-2-1, EN 15316-4-1, EN 15316-4-2, EN 15232, EN 14825, EN 14511	
		distribution		%		
		emission		%		
		control		%		
	efficiencies of cooling system	generation		%	to be evaluated according to EN 14825, EN 15243, EN 14511, EN 15232	
		distribution		%		
		emission		%		
		control		%		
	efficiencies of DHW system	generation		%	to be evaluated according to EN 15316-3-2, EN 15316-3-3	
		distribution		%		
	Building Setpoints and Schedules	temperature setpoint	winter		°C	indoor operative temperature
			summer		°C	
humidity setpoint		winter		%	indoor relative humidity, if applicable: 'Humidity has only a small effect on thermal sensation and perceived air quality in the rooms of sedentary occupancy' (EN 15251)	
		summer		%		
operation schedules and controls		occupancy			provide comments or references (EN or national standards, etc.) on the schedules used for the calculation	
		lighting				
		appliances				
		ventilation				
		heating system				
		cooling system				
Energy building need/use	(thermal) energy contribution of main passive strategies implemented	(1) ...		kWh/a	e.g. solar greenhouse, natural ventilation, day-lighting, etc.	
		(2) ...		kWh/a		
		(3) ...		kWh/a		
	energy need for heating			kWh/a	heat to be delivered to or extracted from a conditioned space to maintain the intended temperature conditions during a given period of time	
	energy need for cooling			kWh/a		
	energy need for DHW			kWh/a	heat to be delivered to the needed amount of domestic hot water to raise its temperature from the cold network temperature to the prefixed delivery temperature at the delivery point	
	energy need for other (humidification, dehumidification)			kWh/a	latent heat in the water vapour to be delivered to or extracted from a conditioned space by a technical building system to maintain a specified minimum or maximum humidity within the space (if applicable)	

		Quantity	Unit	Description	
	energy use for ventilation		kWh/a	electrical energy input to the ventilation system for air transport and heat recovery (not including the energy input for preheating the air) and energy input to the humidification systems to satisfy the need for humidification	
	energy use for internal lighting		kWh/a	electrical energy input to the lighting system and other appliances/systems	
	energy use for other (appliances, external lighting, auxiliary systems, etc.)		kWh/a		
Energy generation at the building site	thermal energy from RES (e.g. thermal solar collectors)		kWh/a	energy from renewable sources (that are not depleted by extraction, such as solar energy, wind, water power, renewed biomass) or co-generation	
	electrical energy generated in the building and used onsite		kWh/a		
	electrical energy generated in the building and exported to the market		kWh/a		
Energy consumption	delivered energy	electricity		kWh/a	energy, expressed per energy carrier, supplied to the technical building systems through the system boundary, to satisfy the uses taken into account (heating, cooling, ventilation, domestic hot water, lighting, appliances, etc.)
		fossil fuel		kWh/a	
		other (biomass, district heating/cooling, etc.)		kWh/a	
	primary energy			kWh/a	energy that has not been subjected to any conversion or transformation process

2. SELECTING VARIANTS/MEASURES/PACKAGES

- 2.1. Report in table format the characteristics of selected variants/measures/packages that are applied for the cost-optimal calculation. Please start with the most common technologies and solutions and then move towards the more innovative ones. If there is evidence from previous calculations that measures are far from being cost-optimal, no table has to be filled in but this should be reported separately to the Commission. The format below can be used, but please note that the examples listed are purely illustrative.

Table 4

Illustrative table for listing selected variants/measures

Each calculation should refer to the same comfort level. Pro forma each variant/package/measure should provide the acceptable comfort. If different comfort levels are taken into account, the base of the comparison will be lost.

Measure	Reference case	Variant 1	Variant 2	Etc. ...
Roof insulation				
Wall insulation				
Windows	5,7 W/m ² K (description)	2,7 W/m ² K (description)	1,9 W/m ² K (description)	
Share of window area of total building envelope				

Reference building

Measure/ package/ variant of measures (as described in Table 4)	Energy need		Energy use					Delivered energy specified by source	Primary energy demand in kWh/m ² , a	Energy reduction in primary energy compared to the reference building
	for heating	for cooling	heating	cooling	ventilation	DHW	lighting			

Please fill out one table for each reference building.

Reporting can be limited to the most important measures/packages but it should be indicated how many calculations have been carried out in total. If there is evidence from previous calculations that measures are far from being cost-optimal, no table has to be filled in but this should be reported separately to the Commission.

3.2.2. Report the summary of primary energy conversion factors used in the country in a separate table.

3.2.3. Indicate the delivered energy per carrier in an additional table.

4. GLOBAL COST CALCULATION

4.1. Calculate the global cost for each variant/package/measure using the following tables, referring to low, medium or high (energy price) scenario. The cost calculation for the reference building shall be put at 100 %.

4.2. Report the source of the applied energy price development

4.3. Report the applied discount rate for the financial and the macroeconomic calculation and the result of the underlying sensitivity analysis on at least two different interest rates each.

Table 6

Output data and global cost calculations

Please fill out the table for each reference building using it once for the macroeconomic and once for the financial calculation. Please insert the cost data in national currency.

Variant/ package/ measure as given in Table 5	Initial investment cost (referred to starting year)	Annual running cost			Calculation period ⁽¹⁾ 20, 30 years	Cost of greenhouse gas emissions (only for the macro- economic calculation)	Residual value	Discount rate (different rates for macro- economic and financial calculation)	Estimated economic lifetime	Disposal cost (when applicable)	Global cost calculated
		Annual maintenance cost	Operational cost								

⁽¹⁾ For residential and public buildings 30 years of calculation period shall be taken into account; for commercial, non-residential buildings at least 20 years.

⁽²⁾ The effect of (expected) future price developments has to be taken into account if it is about replacement of components during the calculation period.

4.4. Please report your input parameters used for the calculation of the global cost (e.g. labour cost, cost of the technology, etc.)

4.5. Perform calculation on the sensitivity analysis for the main costs and for energy costs and the applied discount rate for both macroeconomic and financial calculation. For each variation of cost use a separate table like the Table above.

4.6. Please indicate the assumed cost of greenhouse gas emissions for the macroeconomic calculations.

5. COST-OPTIMAL LEVEL FOR REFERENCE BUILDINGS
- 5.1. Report the economic optimal energy performance level in primary energy (kWh/m² year or, if a system level approach is followed, in the relevant unit, e.g. U value) for each case in relation to the reference buildings indicating whether it is the cost-optimal levels calculated at macroeconomic or at financial level.
6. COMPARISON
- 6.1. If the difference is significant, please indicate the reason that justifies the gap and also a plan with the appropriate steps to reduce the difference if the gap cannot be justified (fully).

Table 7

Comparison table for both new and existing buildings

Reference building	Cost-optimal range/level (from-to) kWh/m ² , a (for a component approach in the relevant unit)	Current requirements for reference buildings kWh/m ² , a	Gap

Justification of the gap:

Plan to reduce the non-justifiable gap:

COMMISSION IMPLEMENTING REGULATION (EU) No 245/2012

of 20 March 2012

amending Regulation (EC) No 1187/2009 as regards exports of milk and milk products to the Dominican Republic

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) ⁽¹⁾, and in particular Article 170 and Article 171(1) in conjunction with Article 4 thereof,

Whereas:

- (1) Article 27 of Commission Regulation (EC) No 1187/2009 of 27 November 2009 laying down special detailed rules for the application of Council Regulation (EC) No 1234/2007 as regards export licences and export refunds for milk and milk products ⁽²⁾ provides that within the context of the export quota of milk powder opened by the Dominican Republic, priority is to be given to products falling under specific product codes from the export refund nomenclature. This restriction was introduced in order to prevent excessive number of applications for licences, which could result in a fragmentation of the market and a risk in a loss of market share for the exporters of the Union.
- (2) The quantities applied for the quota year 2011/12 were for the first time lower than the quota quantities available. In case of remaining quantities, it is appropriate to allocate those quantities to the applicants who are interested in receiving higher quantities than those requested, provided that the security is increased accordingly.
- (3) With a view to maximising the use of the quota in the following years, it is appropriate to extend the scope of the licence applications to all the products covered by the tariff quota as provided for in the Economic Partnership Agreement between the Cariforum States, of the one part, and the European Community and its Member States, of the other part ⁽³⁾, the signature and provisional application of which have been approved by Council Decision 2008/805/EC ⁽⁴⁾. Moreover, as regards the validity of export licences, the derogation provided for in Article 6(2) of Regulation (EC) No 1187/2009 should not be limited only to products belonging to the same product category as referred to in Annex I thereof, but it should be extended to any of the products covered by the tariff quota.
- (4) As export refunds are fixed at 0 since 2008 export licence applications and licences should show the

Combined Nomenclature codes instead of the product codes in the nomenclature for refunds. The relevant provisions should be adjusted accordingly.

- (5) For the purpose of good management, it is necessary for the Commission to have earlier than 31 August notification on the quantity for which licences have been issued. Conversely, the notification on the quantities allocated is superfluous and can be abolished.
- (6) Article 28(3)(a) of Regulation (EC) No 1187/2009 provides that exports licence applications are only admissible where applicants lodge a security in accordance with Article 9 thereof. The exception of Article 9 of that Regulation laid down in Article 33(1) thereof is therefore inconsistent.
- (7) Regulation (EC) No 1187/2009 should therefore be amended accordingly.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Management Committee for the Common Organisation of Agricultural Markets,

HAS ADOPTED THIS REGULATION:

Article 1

Regulation (EC) No 1187/2009 is amended as follows:

- (1) in Article 27(2), the first subparagraph is replaced by the following:

'Licence applications can be lodged for all the products falling under CN codes 0402 10, 0402 21 and 0402 29.;
- (2) in Article 28(3), the first subparagraph is replaced by the following:

'To be admissible, only one export licence application may be submitted per product code in the Combined Nomenclature and all applications must be lodged at the same time with the competent authority of a single Member State.;
- (3) Article 31 is amended as follows:
 - (a) in paragraph 1, the first subparagraph is replaced by the following:

'Not later than the fifth working day following the expiry of the period for lodging licence applications, Member States shall notify the Commission, for each of the two parts of the quota and for each product code of the Combined Nomenclature, of the quantities covered by licence applications or, where applicable, that no applications have been lodged.;

⁽¹⁾ OJ L 299, 16.11.2007, p. 1.

⁽²⁾ OJ L 318, 4.12.2009, p. 1.

⁽³⁾ OJ L 289, 30.10.2008, p. 3.

⁽⁴⁾ OJ L 289, 30.10.2008, p. 1.

- (b) in paragraph 2, the third and the fourth subparagraphs are replaced by the following:

'If the application of the allocation coefficient results in a quantity per applicant of less than 20 tonnes, applicants may withdraw their applications. In such cases, they shall notify the competent authority within 3 working days of publication of the Commission's decision. The security shall be released immediately. The competent authority shall notify the Commission, within 8 working days of publication of the decision, of the quantities broken down by product codes of the Combined Nomenclature, for which applications have been withdrawn and for which the security has been released.

Where applications for licences are submitted for quantities of product not exceeding the quotas referred to in Article 28(1), the Commission shall allocate the remaining quantities in proportion to the quantities applied for, by fixing an allocation coefficient. The amount resulting from the application of the coefficient shall be rounded down to the nearest kg. The operators shall inform the competent authority of the supplementary quantity they accept, within a week from the publication of the allocation coefficient. The security lodged shall be increased accordingly.'

- (4) Article 32 is amended as follows:

- (a) in paragraph 1, the third subparagraph is replaced by the following:

'Member States shall notify the Commission by the end of February at the latest for both parts of the quota

referred to in Article 28(1) of the quantities for which licences were issued, broken down by product code of the Combined Nomenclature.';

- (b) in paragraph 2, the following subparagraph is added:

'For the purposes of Article 6(2), the export licence shall also be valid for any of the products falling under the codes referred to in the first subparagraph of Article 27(2).';

- (c) paragraph 5 is replaced by the following:

'5. By 31 August each year at the latest, Member States shall notify the Commission for both parts of the quota referred to in Article 28(1), and in respect to the previous 12-month period as referred to in Article 28(1), broken down by product code of the Combined Nomenclature:

- the quantity for which licences were not issued or cancelled,
- the quantity exported.';

- (5) in Article 33, paragraph 1 is replaced by the following:

'1. Chapter II shall apply, with the exception of Articles 7 and 10.'

Article 2

This Regulation shall enter into force on the third day following its publication in the *Official Journal of the European Union*.

It shall apply from the quota year 2012/13.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 March 2012.

For the Commission
The President
José Manuel BARROSO

COMMISSION IMPLEMENTING REGULATION (EU) No 246/2012**of 20 March 2012****establishing the standard import values for determining the entry price of certain fruit and vegetables**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) ⁽¹⁾,

Having regard to Commission Implementing Regulation (EU) No 543/2011 of 7 June 2011 laying down detailed rules for the application of Council Regulation (EC) No 1234/2007 in respect of the fruit and vegetables and processed fruit and vegetables sectors ⁽²⁾, and in particular Article 136(1) thereof,

Whereas:

- (1) Implementing Regulation (EU) No 543/2011 lays down, pursuant to the outcome of the Uruguay Round multilateral trade negotiations, the criteria whereby the

Commission fixes the standard values for imports from third countries, in respect of the products and periods stipulated in Annex XVI, Part A thereto.

- (2) The standard import value is calculated each working day, in accordance with Article 136(1) of Implementing Regulation (EU) No 543/2011, taking into account variable daily data. Therefore this Regulation should enter into force on the day of its publication in the *Official Journal of the European Union*,

HAS ADOPTED THIS REGULATION:

Article 1

The standard import values referred to in Article 136 of Implementing Regulation (EU) No 543/2011 are fixed in the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the day of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 March 2012.

*For the Commission,
On behalf of the President,
José Manuel SILVA RODRÍGUEZ
Director-General for Agriculture and
Rural Development*

⁽¹⁾ OJ L 299, 16.11.2007, p. 1.

⁽²⁾ OJ L 157, 15.6.2011, p. 1.

ANNEX

Standard import values for determining the entry price of certain fruit and vegetables

(EUR/100 kg)		
CN code	Third country code ⁽¹⁾	Standard import value
0702 00 00	IL	139,1
	JO	64,0
	MA	49,0
	TN	98,4
	TR	98,3
	ZZ	89,8
0707 00 05	JO	183,3
	TR	157,2
	ZZ	170,3
0709 91 00	EG	76,0
	ZZ	76,0
0709 93 10	JO	225,1
	MA	60,5
	TR	129,2
	ZZ	138,3
0805 10 20	EG	51,8
	IL	76,4
	MA	51,2
	TN	57,9
	TR	68,9
	ZZ	61,2
0805 50 10	EG	43,8
	TR	53,3
	ZZ	48,6
0808 10 80	AR	89,5
	BR	82,5
	CA	125,0
	CL	101,6
	CN	103,4
	MK	31,8
	US	164,1
	UY	74,9
	ZA	119,9
	ZZ	99,2
0808 30 90	AR	94,3
	CL	124,6
	CN	63,0
	ZA	91,6
	ZZ	93,4

⁽¹⁾ Nomenclature of countries laid down by Commission Regulation (EC) No 1833/2006 (OJ L 354, 14.12.2006, p. 19). Code 'ZZ' stands for 'of other origin'.

COMMISSION IMPLEMENTING REGULATION (EU) No 247/2012**of 20 March 2012****on the issue of import licences for applications submitted in the first seven days of March 2012
under the tariff quota for high-quality beef administered by Regulation (EC) No 620/2009**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products (Single CMO Regulation) ⁽¹⁾,Having regard to Commission Regulation (EC) No 1301/2006 of 31 August 2006 laying down common rules for the administration of import tariff quotas for agricultural products managed by a system of import licences ⁽²⁾, and in particular Article 7(2) thereof,

Whereas:

- (1) Commission Regulation (EC) No 620/2009 of 13 July 2009 providing for the administration of an import tariff quota for high-quality beef ⁽³⁾ sets out detailed rules for the submission and issue of import licences.
- (2) Article 7(2) of Regulation (EC) No 1301/2006 provides that in cases where quantities covered by licence appli-

cations exceed the quantities available for the quota period, allocation coefficients should be fixed for the quantities covered by each licence application. The applications for import licences submitted pursuant to Article 3 of Regulation (EC) No 620/2009 between 1 and 7 March 2012 exceed the quantities available. Therefore, the extent to which import licences may be issued and the allocation coefficient should be determined,

HAS ADOPTED THIS REGULATION:

Article 1

Import licence applications covered by the quota with order number 09.4449 and submitted between 1 and 7 March 2012 in accordance with Article 3 of Regulation (EC) No 620/2009, shall be multiplied by an allocation coefficient of 0,385109 %.

Article 2

This Regulation shall enter into force on the day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 March 2012.

*For the Commission,
On behalf of the President,
José Manuel SILVA RODRÍGUEZ
Director-General for Agriculture and
Rural Development*

⁽¹⁾ OJ L 299, 16.11.2007, p. 1.

⁽²⁾ OJ L 238, 1.9.2006, p. 13.

⁽³⁾ OJ L 182, 15.7.2009, p. 25.

COMMISSION IMPLEMENTING REGULATION (EU) No 248/2012**of 20 March 2012****withdrawing the suspension of submission of applications for import licences for sugar products under certain tariff quotas**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Regulation (EC) No 1234/2007 of 22 October 2007 establishing a common organisation of agricultural markets and on specific provisions for certain agricultural products ('Single CMO' Regulation) ⁽¹⁾,

Having regard to Commission Regulation (EC) No 891/2009 of 25 September 2009 opening and providing for the administration of certain Community tariff quotas in the sugar sector ⁽²⁾, and in particular Article 5(2) thereof,

Whereas:

(1) Submission of applications for import licences concerning order number 09.4318 were suspended as from 19 January 2012 by Commission Implementing

Regulation (EU) No 41/2012 of 18 January 2012 suspending submission of applications for import licences for sugar products under certain tariff quotas ⁽³⁾, in accordance with Regulation (EC) No 891/2009.

(2) Following notifications on unused and/or partly used licences, quantities became available again for that order number. The suspension of applications should therefore be withdrawn,

HAS ADOPTED THIS REGULATION:

Article 1

The suspension laid down by Implementing Regulation (EU) No 41/2012 of submission of applications for import licences for order number 09.4318 as from 19 January 2012 is withdrawn.

Article 2

This Regulation shall enter into force on the day of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 20 March 2012.

*For the Commission,
On behalf of the President,
José Manuel SILVA RODRÍGUEZ
Director-General for Agriculture and
Rural Development*

⁽¹⁾ OJ L 299, 16.11.2007, p. 1.

⁽²⁾ OJ L 254, 26.9.2009, p. 82.

⁽³⁾ OJ L 16, 19.1.2012, p. 40.

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