



## Transparency and banking supervision

Remarks by Ignazio Angeloni, Member of the Supervisory Board of the European Central Bank at the ICMA Capital Market Lecture Series, Frankfurt am Main, 27 January 2015

### Introduction <sup>[1]</sup>

It is a pleasure to be here with you today. I am grateful to the International Capital Market Association (ICMA) for having invited me to contribute to this lecture series.

These are promising and challenging times for European capital markets. This year, the European Commission will propose a blueprint for a “capital market union”, the goal of which is to enhance the breadth, diversification, efficiency and integration of EU financial markets. Meanwhile, the start of the Single Supervisory Mechanism (SSM) and the completion by the ECB of the “comprehensive assessment” has opened a new chapter in the relationships between banks and capital markets in Europe. On our continent, more than elsewhere, intermediaries and markets interact closely. “Market-based” and “bank-based” financial structures are not mutually exclusive; the savings/investment process works best when markets and banks operate hand in hand. For that to happen, however, proper information on banks must be available.

Helping to provide this information is one of the responsibilities of the banking supervisor. Following on from this idea, today, I would like to share with you some thoughts on transparency in supervision. Communication by policy-makers is a key source of information for financial market participants. Communicating effectively, however, is not easy. While information channels proliferate in our modern societies, effective communication between policy-makers and markets often remains elusive. I would say that, on matters of information, “more” is not always “better”; quality is what really counts. <sup>[2]</sup> In addition, transparency issues are thornier in banking supervision than they are in other policy areas. ECB Banking Supervision wants to be at the forefront of international transparency practices, and in many ways it already is. But putting this on a solid footing requires a thorough understanding of, and reflection on, the complexities involved.

In dealing with these issues, central bankers of my generation have an advantage: that of having witnessed the revolution in the transparency framework of monetary policy over the last decades. This is a good starting point. It is not an endpoint, however, because the two areas are different in many respects. Accordingly, in my remarks I will start by summarising the process of change that has taken place in monetary policy, and then focus on the specifics of banking supervision.

I should say at the outset that the views I will express, though inspired by debates with colleagues on the

ECB's Supervisory Board, are personal and should not be considered official views of this body.

## The long road to monetary policy transparency

To central bankers, market participants and even students of economics, stating today that monetary policy should be transparent sounds obvious, almost a cliché. The reasoning is well-known. Monetary policy can deliver price stability, which is a valuable goal for society. Society, however, cannot conduct monetary policy directly, not even through its elected representatives, because it is technically complex (involving sophisticated market intervention techniques) and because there is a conflict between short-term and long-term goals: once price stability is achieved, politicians are tempted to deviate from it in order to reap the benefits of monetary expansion. This conflict, that economists call time inconsistency, <sup>[3]</sup> undermines the main goal of monetary policy, unless certain arrangements are in place.

In what was probably their most successful recommendation ever, economists argued that monetary policy should be delegated to a technically equipped agency, the central bank, free from daily interference (“independence”), but formally bound to a price stability goal. <sup>[4]</sup> To monitor its behaviour, appropriate reporting obligations must exist (“accountability”), requiring that the central bank provide information on its actions (“transparency”). More recently, it was also shown that delegation of complex policy tasks where time inconsistency problems arise is beneficial not only in monetary policy, but in other policy areas as well. <sup>[5]</sup>

This vision, now generally accepted, contrasts sharply with the way central banks have acted throughout most of their history. Until the 1970s at least, central banks deliberately provided limited information, leaving the markets to guess the course of action they were pursuing. Most central bankers considered opaqueness an advantage, because it granted them more freedom and did not endanger their reputation; this view was predominant when I first joined a central bank in 1981. The initial drive towards transparency came from politics. In the mid-1960s, new legislation in the United States (the Freedom of Information Act, or FOIA) tried for the first time to reconcile the “natural right” of citizens to know about facts that affect them, with the delicate nature of certain public functions that require confidentiality, and tilted the balance of the trade-off in favour of transparency. FOIA was followed by similar legislation in many countries, promoting openness in public policies and easier access by citizens to related information.

A thorough debate on the nature of that trade-off was triggered by a famous court case, involving the US Federal Reserve System in 1975. Invoking the FOIA, a graduate student asked the Fed to publicly release its monetary policy decision variable, the target for the federal funds rate. At that time, the Federal Open Market Committee (FOMC) set such target at each meeting, but did not disclose it. <sup>[6]</sup> The debate, which I cannot summarise here, <sup>[7]</sup> was concluded in favour of transparency: the advantages of limiting disclosure were shown to be fewer than initially argued by the Fed. Since then, major steps towards transparency were undertaken in many countries around the world. <sup>[8]</sup> The Fed disclosed the federal funds target from 1994 onwards, and from the year 2000 it also published the “balance of risks” for the outlook. In 2012, it disclosed its longer-run goals and monetary policy strategy. In addition, the FOMC started reporting short-term interest rate projections. The minutes of the Monetary Policy Committee of the Bank of England are public since 1994. The ECB was the first to convene, from the start, press conferences after each policy meeting, a practice now followed by other central banks. Starting this month, the ECB publishes regular accounts of the Governing Council monetary policy discussions four weeks after the meeting.

According to Alan Blinder, “a central bank is transparent if its actions are ‘easily detected’, its policies are ‘readily understood’, and its pronouncements are ‘free from deceit’.” <sup>[9]</sup> Blinder mentions three necessary components: “clarity”, “substantive content” and “openness to public scrutiny”. This definition contains, I believe, elements that are useful beyond monetary policy. Clarity means that communication should be expressed in accessible language, with sentences that can be easily understood. Substantive content means that pertinent information should be given. Openness to public scrutiny means that the reasoning behind policy actions should also be communicated, so that it can be scrutinised. This standard of transparency has gradually broadened to include disclosure of the analysis tools (models, methodologies,

data) used by the central bank.

This general line of thought has been qualified in a number of ways, and there have been also some opposing views. First, central bank communication cannot obviously exceed the boundaries of knowledge; there are uncertainties and unknowns in the economic environment and in the policy transmission process that prevent the central bank from providing full explanations. The response in this case may be that the degree of uncertainty should also be communicated. Second, it has been argued that excess transparency exposes the central bank to external interference. This argument applies strongly when the votes of individual decision-making board members are disclosed, because this can make them more vulnerable to political influence. <sup>[10]</sup> Finally, it has been noted that excessive disclosure authorities may hamper the diversity of views and increase herding. <sup>[11]</sup>

Importantly, transparency can also help improve the effectiveness of policy. The ability of markets to understand and predict the moves by the central bank improves, for example, its ability to steer interest rates. Central bank actions are enhanced if expectations are consistent with them, and expectations are influenced by communication. The adoption by many central banks of inflation targeting since the 1990s was justified precisely by a desire to strengthen communication on the final goal, hence facilitating its attainment. <sup>[12]</sup> In recent years, a more subtle evolution has taken place. From being seen as a way to strengthen the effectiveness of *existing* policy tools, communication is now starting to be used as a separate tool, *in addition* to existing ones. When short-term rates hit their lower bound at zero after the crisis, communication about future policy rates (“forward guidance”) helped influence expected future rates, hence long-term yields. The jury is still out on forward guidance, however, because a number of problems can arise. One of them is that the time inconsistency problem becomes more serious, because the central bank commits to future actions that may not be optimal later on. <sup>[13]</sup> Recently, some central banks have signalled a desire to refrain from active forward guidance.

## What’s special about banking supervision?

This is how far monetary policy goes. Now the question arises: does the same framework apply to banking supervision as well? Or is there something inherently different there, that warrants specific arrangements? This question was not explored in detail until the late 1990s, when several countries (the United Kingdom being the most prominent example) decided to separate banking supervision from the central bank and entrust it to a separate agency. This is a bit surprising to me, because while differences exist between the two policy functions – as I shall argue – they are still relevant regardless of whether they are performed by the same institution or not. <sup>[14]</sup>

The first observation to be made is that the criteria suggesting that monetary policy should be delegated to an independent agency fit banking supervision as well. <sup>[15]</sup> Banking supervision is highly technical and complex, requiring a mix of financial, accounting and legal expertise. The recent extension of focus to cover macro-prudential supervision adds a further dimension of complexity. Moreover, the potential conflict between short-term and long-term objectives (the time inconsistency problem) is likely to be relevant as well; for example, supervisory forbearance may help to protect confidence in individual institutions in the short run, if the supervisor enjoys a high degree of credibility, but is likely to be detrimental to such credibility, and to financial stability, over a longer horizon. In addition, banking supervision typically involves important vested interests, a further reason for separating policy from direct political control.

A high degree of transparency is especially suited to a new institution like the SSM, which has no own previous track record. I remember that a similar argument was made when the ECB started operating in 1999.

This said, specific circumstances arise that make transparency and accountability in supervision especially delicate and require particular safeguards.

*First*, supervision is special in that it involves handling two types of information, one concerning the

authority itself and its behaviour (proceedings, deliberations, internal thinking, strategy and methodologies, etc.), and the other concerning the supervised entities.

*Second*, supervisors typically obtain, in the exercise of their function, sensitive information about the situation of individual banks. Proprietary information generated within the bank may, if publicly known, affect its competitive position. The supervisor does not have the legal right to disclose it; the obligation may fall on the banks themselves, in certain cases <sup>[16]</sup>. Banks typically trust that the supervisor will treat information confidentially, and this facilitates the flow of information between them. A similar situation is not typically seen in monetary policy.

*Third*, the supervisory process generates information on the soundness of individual banks: about their solvency, liquidity, profitability, quality of internal governance, viability of business models, etc. Early disclosure, especially when the picture is not yet complete and any necessary countermeasures have not yet been taken or planned, can be risky and counterproductive, endangering financial stability. <sup>[17]</sup> This does not exclude, however, the publication of supervisory statistical data, along the lines of what is being done in the United States for example.

Perhaps owing to these complexities, explaining patterns and trends of supervisory transparency has proven to be a challenge for researchers. A recent IMF survey <sup>[18]</sup> tried to identify measures of transparency, comparing them across a large number of supervisors globally, and then relate them to institutional and structural features of the respective authorities, countries or banking systems, following an approach already used for monetary policy <sup>[19]</sup>. The IMF study presents indicators based on five criteria: political, economic, procedural, policy and operational transparency, which are then assembled into a single number. The resulting rankings are somewhat puzzling, as they do not match closely other evidence comparing the quality of government across countries <sup>[20]</sup>. Moreover, the authors note that it is very difficult to identify explanatory factors. This indicates that it is particularly difficult to obtain reliable measures of supervisory transparency, perhaps because provisions on supervisory transparency in regulatory frameworks are very broad, leaving ample room for divergence.

## Policy initiatives: where do we stand?

In 2006 the Basel Committee on Banking Supervision, in its Core Principles (which set minimum standards for supervisors around the world, and are subject to IMF surveillance), first mentioned that supervisors should follow transparent processes. Concretely, this meant that supervisors should disclose their objectives and be held accountable through a transparent framework for the discharge of their duties in relation to those objectives. <sup>[21]</sup> The need to ensure the operational independence of supervisors was already highlighted in the Basel Core Principles in 1997. <sup>[22]</sup>

In Europe, the Capital Requirements Directive IV (CRD IV) stipulates that supervisors need to publish relevant information on the laws, regulations, administrative rules and guidance, information on how options and discretions are exercised, the general criteria and methodologies used in the supervisory review and evaluation process, and aggregate statistical data on key aspects of the implementation of the prudential framework, including the number and nature of supervisory measures taken and administrative penalties imposed. <sup>[23]</sup> The Committee of European Banking Supervisors (CEBS), predecessor of the European Banking Authority (EBA) further detailed these guidelines in early 2010, mentioning the need to enhance the effectiveness of supervision and promoting a level playing field by facilitating comparisons of supervisory approaches in Europe. <sup>[24]</sup>

The diversity of practices and the difficulty of conducting international comparisons clearly emerge from the IMF survey I mentioned. <sup>[25]</sup> One example concerns the publication of individual bank data. A recent Bruegel report compares the EU and the United States regarding the timeliness, consistency and public availability of individual bank data. In the EU only 11 Member States publish individual bank data. <sup>[26]</sup> The frequency of reporting also varies, from monthly to yearly. In the United States, supervisory reports are generally disclosed the day after the supervisor receives them. <sup>[27]</sup> Making these timely reports available

to stakeholders and market participants can be important for investors, to fosters confidence in the banking sector. Cross-institution and cross-country comparability is essential. Recently, efforts have been made to standardise the format, structure and contents of supervisory statistical information. <sup>[28]</sup> ECB Banking Supervision, in particular, has set up, since its inception, a new and fully harmonised statistical reporting system for its significant and less significant institutions, following International Financial Reporting Standards (IFRSs) wherever possible.

Beyond statistics, several steps have already been taken by ECB Banking Supervision to foster its own transparency. Its website contains documents specifying the framework in which we operate, legally and operationally. This includes SSM governance and decision-making and a summary of our Supervisory Manual. Statements by the Chair at the European Parliament, as well as the speeches by the Chair, Vice-Chair and the ECB Representatives to the Supervisory Board, often containing policy messages and other information, are published on the website. The outcome of the comprehensive assessment, as you know, was disclosed in detail. Finally, starting this year, the ECB will publish an annual report on its supervisory tasks.

In the context of its accountability to the European Parliament, the ECB transmits the records of proceedings of each Supervisory Board meeting with a lag of about one month. <sup>[29]</sup> The ECB also intends to publish questions posed by Members of the European Parliament to the Chair of the Supervisory Board, along with the corresponding answers.

## Elements for a supervisory transparency framework

With historical perspective, the changes underway in supervisory transparency are at the crossroads of two reform streams: one towards more openness in public policy in general – which as already noted, radically changed the content of monetary policy communication – the second as part of the post-crisis reform of banking supervision and regulation in general. Significant steps have already been made. What is missing is an internationally consistent framework. Supervisors still communicate differently, sometimes partially, depending on cultural traditions, perceptions and preferences. In an increasingly integrated banking sector this is not helpful.

In Europe, the creation of a new supervisor makes the moment especially favourable. The ECB Banking Supervision has a unique opportunity to be at the forefront of the global trend towards supervisory transparency. It should not be missed. Here again, important steps have been taken, but more can be done.

Two areas of communication should be distinguished: (i) information on the activity of the authority itself; (ii) information on the supervised banks. Different considerations, requirements and constraints apply to the two areas.

On information about the authority, three elements can be identified, relating respectively to the strategy, the tactics and the internal organisation of the supervisor.

On strategy, importance should be assigned to communication about the “supervisory model”: the approach or strategy followed by the authority. The supervisory model includes the criteria used to evaluate the riskiness of a bank (solvency, liquidity and other relevant factors), the indicators used, the methodology followed for the supervisory review (Pillar II process), all the way down to aspects such as the composition and organisation of the staff employed to carry out these analyses (on-site and off-site). Transparency about the supervisory model gives market participants a means of better understanding how the authority decides on individual cases, even when details of those cases cannot be disclosed. As in other policy areas, attainment of the goal (safe and sound banks, as well as systemic financial stability) can be enhanced if markets understand the process driving specific policy actions. Transparency also acts as an internal discipline device, helping the supervisor conduct thorough internal reflection on the way in which it operates.

A second element relates to “tactics”, meaning the priorities pursued by the supervisor as well as specific decisions on individual banks. Communication here is more complex, because it often involves sensitive and proprietary information, and because it can have an impact on stability. Many supervisors disclose some information on their decisions. As regards publishing the proceedings of the decision-making board, the international practice remains conservative: proceedings are as a rule not published – in contrast to what is done in monetary policy. Strictly speaking, from a personal perspective, I do not understand the reason for this difference. In some cases (Bank of England), the authority releases information if specifically requested after assessing the content that can be released. The Fed, under the so-called Sunshine Act, <sup>[30]</sup> can also disclose its deliberation proceedings if requested, with possible exemption for overly sensitive parts. The ECB already delivers a summary of proceedings to the European Parliament for the meetings of the Supervisory Board as part of the inter-institutional agreement on the SSM signed by the two institutions. A public release of this document, with appropriate time lag, could be considered at some stage.

Supervisory Board decisions on individual banks are evidently the most delicate part. Systematic disclosure would present major risks and should in general be avoided. The supervisory body should always be able to apply its own discretion as to whether, how and when such decisions can enter the public domain, with the proviso that confidentiality should not be indiscriminate or unjustified. I think that a good internal rule for dealing with specific cases should be that, whenever it is decided that a given decision should not be disclosed, there should be a clear reason justifying it, formulated in a way that can itself be disclosed, if requested. As a rule, the consent of the bank concerned should be asked. The supervisor can only encourage such consent, not impose it.

The third “pillar”, still in the area of communication on the authority, concerns its own internal organisation, including structures, functions, internal governance, staffing, financials, and so on. The appropriate channels here are periodical publications (such as the annual report) and the parliamentary dialogue. The ECB has reported to the European Parliament quarterly on the SSM preparations. It will continue to address the European Parliament and will publish an annual report with detailed information. The ECB also plans to set up specific webpages with information about the fees through which the supervised banks will contribute to the costs of supervision.

A different area concerns information about the supervised banks. As a general principle, it is highly advisable that the supervisor promote the dissemination of high-quality information about the banks. But there are limits to that, as I have already discussed. The supervisor cannot and should not force disclosure of private market-sensitive information without explicit consent. It can, however, work with the banks to foster a progressively better and more ample provision of information, on a homogeneous and comparable basis. This seems particularly promising and rewarding for the SSM considering its multi-country structure and its mission to promote a level playing field, also in information. The comprehensive assessment was a major step in this direction, covering the banks classified as “significant”. More needs to be done for all banks, including the less-significant ones.

Finally, special considerations apply regarding communication with experts – including academics, think-tankers, other opinion makers, as well as industry representatives. Making this segment of public audience a regular addressee of disclosure can be rewarding in many ways: to receive technical support, as an internal sounding board, as a channel of external communication, as a reputation-building device, etc. Traditionally, supervisors have refrained from intense and regular contact with outside experts, but this is changing, and it pays to be proactive. The New York Fed, for example, has established a highly-qualified Financial Advisory Roundtable. Other examples should and will follow.

## Conclusions

Bank supervision is evolving. The change has accelerated after the crisis. It is inevitable and welcome that this includes progress towards more openness in the performance of banking supervision, along a path that has characterised other policy areas in recent years.

ECB Banking Supervision is in a good position to lead in this direction, because it is new, because it is multi-national (which enhances the value of comparable information) and because it had in its genetic code, since the start, the goal of improving the information available on European banks.

Reflection is underway, inside and outside the SSM. I have offered some ideas that can contribute to it. We are open to suggestions. I hope this debate will continue, along with contributions from market participants.

Thank you for your attention.

.....

[1] I am grateful to Alex Cuckierman, Julie Dickson, Barry Eichengreen, Korbinian Ibel, Enrico Perotti and Nicolas Veron for useful discussions. Cécile Meys and Philip Vermeulen offered excellent comments and drafting support. The views expressed here are personal and not necessarily shared by the ECB Supervisory Board.

[2] Winkler, Bernhard, "Which kind of transparency: on the need for clarity in monetary policy making", *Working Paper Series*, No 26, ECB, 2000.

[3] Kydland, Finn E. and Prescott, Edward C., "Rules rather than discretion: The inconsistency of optimal plans", *The Journal of Political Economy*, Vol. 85 (3), 1977, pp. 473-491; Barro, Robert J. and Gordon, David B., "Rules, discretion and reputation in a model of monetary policy", *Journal of Monetary Economics*, Vol. 12 (1), 1983, pp. 101-121.

[4] Alesina, Alberto and Summers, Lawrence H. 1993, "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence", *Journal of Money, Credit and Banking*, Vol. 25, No 2 pp. 151-162.

[5] Alesina, Alberto and Tabellini, Guido, "Bureaucrats or politicians? Part I: A single policy task", *American Economic Review*, Vol. 97(1), 2007, pp. 169-179; Alesina, Alberto and Tabellini, Guido, "Bureaucrats or politicians? Part II: Multiple policy tasks", *Journal of Public Economics*, Vol. 92(3-4), 2008, pp. 426-447.

[6] **Axilrod, Stephen H., "Inside the Fed: Monetary Policy and Its Management, Martin through Greenspan to Bernanke", MIT Press, 2009.**

[7] Goodfriend, Marvin, "Monetary mystique: secrecy and central banking", *Journal of Monetary Economics*, Vol 17, 1986, pp. 63-92; Tabellini, Guido, "Secrecy of monetary policy and the variability of interest rates", *Journal of Money, Credit and Banking*, Vol. 19 (4), 1987, pp. 425-436.

[8] "Greater transparency in central bank operations is the most dramatic change in the conduct of monetary policy in recent years" according to Dincer, Nergiz and Eichengreen, Barry, "Central bank Transparency: Where, Why and with What Effects?", *NBER Working Papers*, No 13003, National Bureau of Economic Research, 2007, who provide an overview.

[9] Blinder, Alan, "Through the looking glass: central bank transparency", *CEPS Working Paper*, No 86, CEPS, 2002.

[10] Cuckierman, Alex, "The Limits of Transparency", *Economic Notes*, Vol. 38, 2009, pp. 1-37, provides a summary of arguments and references to other views.

[11] Morris, Stephen and Shin, Hyun Song, "Social value of public information", *American Economic Review*, Vol. 92(5), 2002, pp. 1521-1534.

[12] Literature has now emerged on whether central bank communication successfully steers expectations and financial and real sector outcomes. Overall, the answer is affirmative. A summary is provided by Blinder, Alan, Ehrmann, Michael, Fratzscher, Marcel, de Haan, Jakob and Jansen, David-Jan, "Central Bank Communication and Monetary Policy: A Survey of Theory and Evidence", *Journal of Economic Literature* 2008, Vol. 46:4, 2008, pp. 910-945.

[13] See, for example, International Monetary Fund, "Unconventional monetary policies – recent experience and prospects", 2013.

[14] Bernanke, B., "Central Bank Independence, Transparency and Accountability", Speech presented at the Bank of Japan, Tokyo, May 2010.

[15] See Masciandaro, Donato, Quintyn, Marc and Taylor, Michael, "Financial Supervisory Independence and Accountability – Exploring the Determinants", *IMF Working Papers*, No 147, IMF, 2008, and other

references therein.

[16] Pursuant to the Directive 2003/6/EC of the European Parliament and of the Council of 28 January 2003 on insider dealing and market manipulation (market abuse directive).

[17] This point is forcefully made by many authors – see, for example, Cukierman, op. cit.

[18] Liedorp, Franka, Mosch, Robert, van der Cruijssen, Carin and de Haan, Jakob, “Transparency of Banking Supervision”, *IMF Economic Review*, 2013.

[19] See for example Dincer, N. Nergiz and Eichengreen, Barry, “ Central Bank Transparency and Independence: Updates and New Measures”, *International Journal of Central Banking*, March 2014.

[20] For example, the World Governance Indicators of the World Bank (<http://info.worldbank.org/governance/wgi/>).

[21] <http://www.bis.org/publ/bcbs230.pdf>

[22] <https://www.bis.org/publ/bcbsc102.pdf>

[23] Article 143(1) of Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

[24] <https://www.eba.europa.eu/documents/10180/105237/CEBSGuidelinesonSupervisoryDisclosurerevisedJan.pdf>

[25] <http://www.palgrave-journals.com/imfer/journal/v61/n2/full/imfer201311a.html>

[26] Gandrud, Chr. and Hallerberg, M., “Supervisory Transparency in the European Banking Union”, *Bruegel Policy Contribution*, Issue 2014/01, January 2014.

[27] Flood, Mark. D., Kwan, Simon H. and Leonova, Irina S, “Data for Microprudential Supervision of U.S. Banks”, in Brose, M., Flood, M., Krishna, D. and Nichols, W. (eds.) *Handbook of Financial Data and Risk Information*, Vol. I, Cambridge University Press, 2012.

[28] See Commission Regulation 650/2014, implementing EBA technical standards (<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0650&from=EN>).

[29] <http://www.europarl.europa.eu/document/activities/cont/201311/20131107ATT74064/20131107ATT74064EN.pdf>

[30] Federal Reserve Transparency Act, 2009.

**European Central Bank** Directorate General Communications

Sonnemannstrasse 20, 60314 Frankfurt am Main, Germany

Tel.: +49 69 1344 7455, e-mail: [media@ecb.europa.eu](mailto:media@ecb.europa.eu), website: [www.bankingsupervision.europa.eu](http://www.bankingsupervision.europa.eu)

*Reproduction is permitted provided that the source is acknowledged.*

## > **Media contacts**