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1. INTRODUCTION

This Communication reviews progress made in the Member States in improving the environment within which enterprises can be established and grow. This important aspect of enterprise policy, repeatedly raised by the Commission in recent years[1], directly affects Europe's ability to achieve the ambitious strategy adopted at the Lisbon European Council in March 2000. Member States, too, have expressed concern about the contribution of their policies to entrepreneurial dynamism.

A business environment that strengthens incentives to produce, to establish enterprises, to innovate and to take risk contributes to growth of income and of job opportunities. On the other hand, burdensome regulations, inefficient markets and administrative obstacles, as well as negative attitudes to risk-taking and to entrepreneurship hinder entrepreneurial dynamism and undermine the achievement of Europe's ambitions.

Using the open method of co-ordination to engage in policy benchmarking and monitoring, the Commission and the Member States have been learning from the diverse experiences of the Member States. They have identified and disseminated lessons of successful practice, in particular promoting the effectiveness of the institutional structures on whose operation markets depend.

The Commission's *Enterprise Policy Scoreboard* and *Innovation Scoreboard* point to the diversity of performance across the EU, while Best projects[2] point up successful practice and monitor progress in areas of importance to enterprises. This Communication draws on material from these sources.

Starting from the *Enterprise Policy Scoreboard*, the Member States and the Commission have worked together to develop quantitative targets for the improvement of their enterprise policy performance. These will help focus Member States' policies on achieving identifiable progress in specific areas of importance to the business environment.

Since the Lisbon European Council, the economic environment has worsened and the prospects for the early, robust, economic growth that underlay the Lisbon strategy have dimmed[3]. This merely adds to the importance of improving the business

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1 See, for example, *The Lisbon Strategy – Making Change Happen*, Communication from the Commission to the Spring European Council in Barcelona, COM (2002) 14 final, 15.1.2002. The 2002 Broad Economic Policy Guidelines also stress the need to encourage entrepreneurship; see "Council Recommendation of 21 June 2002 on the Broad Guidelines of the Economic Policies of the Member States and the Community", Council of the European Union, 10093/02, Seville, 21 June 2002.

2 These are financed by the *Multi-Annual Program for Enterprise and Entrepreneurship and in particular for Small and Medium-sized Enterprises (SMEs), 2001-2005*, Council Decision 2000/819/EC of 20 December 2000. The Best procedure was launched by the Commission in December 2000 in the framework of the Lisbon European Council's open method of co-ordination.

3 For the period 2000-2010 the Lisbon strategy presupposes an average economic growth of 3 %. In 2000, GDP growth was 3.3 %; in 2001, 1.7 % and according to the Commission's forecasts (see Economic Forecasts, Spring 2002, *European Economy*, no. 2/2002, DG ECFIN) real GDP growth was expected to be 1.5 % in 2002, rising to 2.9 % in 2003; the outlook has, of course, worsened significantly in recent months.

environment. In an economic climate that reduces the returns to investment, discourages new ventures and increases the risk of failure, the additional burden of unbalanced regulation, poor business services, shortage of well-trained workers and costly finance may finally discourage the entrepreneurship and business ventures on which Europe's ambitions depend.

2. PROGRESS IN THE FIELD OF ENTERPRISE POLICY

This section draws mainly on material from the 2002 *Enterprise Policy Scoreboard*[4] and selectively on results of completed or on-going Best projects[5].

2.1. Entrepreneurship

Entrepreneurial dynamism is a source of productivity, employment and economic growth and signs of entrepreneurial weakness are therefore a cause for concern[6]. European attitudes to entrepreneurship show two broad characteristics. First, a tendency to prefer dependent employment to self-employment suggests that Europeans are less willing to bear business risks than are Americans. Second, those who do shoulder the risks of entrepreneurship seem to be less concerned to grow their businesses than are American entrepreneurs.

Thus, although the number of new businesses grew in the second half of the 1990s[7], there were clear deficits in entrepreneurial activity. This reluctance to form new businesses may in part reflect barriers to entry and relatively stringent regulatory regimes in the labour and product markets in Europe. But it also reflects structural problems, for female entrepreneurship stagnated at low levels, well below those registered in the US[8].

Although Member States have taken a number of measures to promote female entrepreneurship (support for start-ups, information, funding, advice/consultancy, training and mentoring), there is clearly still room for Member States to use identified successful practice to improve their performance in this field. Female entrepreneurship in Europe has remained stagnant since 1995.

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4 *Benchmarking Enterprise Policy: Results from the 2002 Scoreboard*, Commission Staff Working Document, SEC (2002) 1213, 07.11.2002.

5 Best projects have been completed on "Business Support Services" (December 2001); the "Benchmarking the Administration of Business Start-ups" (January 2002); the "Management of Incubators" (January 2002); "Impact Assessment" (February 2002); "Benchmarking National and Regional Policies in Support of e-Business for SMEs" (June 2002); "Transfer of Business" (July 2002); "Education and Training for Entrepreneurship" (September 2002); "Business Angels" (September 2002); and "ICT Skills" (September 2002). "Promoting Entrepreneurship amongst Women" will be completed in March 2003. A project on "Evaluation of the Economic Impact of Conformity Assessment Procedures" will be completed in mid-2003; see "Highlights of the Results of the Best Procedure Projects 2001-2002", Commission Staff Working Document, SEC(2002) 1212, 07.11.2002.

6 The Commission is currently preparing a Green Paper on entrepreneurship in Europe, partly in response to this perception that European entrepreneurship is weak.

7 All Member States registered positive net enterprise growth in the second half of the 1990s, between 0.2 % in Belgium and 6 % in Ireland. However national data on enterprise growth and decay are not yet harmonised and should be interpreted with caution. See *Benchmarking Enterprise Policy: Results from the 2002 Scoreboard,* op. cit., footnote 4, chapter IV.

8 Female entrepreneurship, measured by female participation in self-employment, has stagnated at around 28 % in the EU compared to 35 % in the US. It is higher in the EU service sector (34 %) but significantly less in industry (11 %).

Further, ensuring the successful transfer of SMEs when their entrepreneurs reach retirement age has become an important policy concern. Around 600 000 SMEs change ownership each year, with retirement of the entrepreneur as a major cause, and this affects around 2.5 million jobs. Progress has been made in implementing existing recommendations[9] intended to smooth transfer. Most Member States now have policies on taxation of inheritance and gifts to help keep the capital of businesses intact on transfer[10]. There has also been wide progress in facilitating business transfers to third parties[11]. Less general, although still valuable, have been measures to make it easier to transfer such businesses to employees, to provide relief for entrepreneurs who take early retirement and to provide tax relief for entrepreneurs who sell a business and reinvest the proceeds in another SME.

2.2. Framework conditions

All Member States have made progress in recent years in simplifying the administrative and regulatory framework to make it more supportive of risk-taking and enterprise development. As a result, relatively few SMEs now report administrative regulations as a major constraint[12]. However, firms that did so showed significantly weaker employment growth, so there can be no complacency on this matter. There are important variations in administrative burdens on recruitment between Member States, for example, suggesting that there is plenty of room for progress[13].

An area of administrative simplification where recent progress has been substantial is that of company registration. Time and cost involved in setting up a new company has been substantially reduced in most Member States. Nevertheless, despite successful benchmarking[14], there is still a substantial dispersion of performance, suggesting that more gains can still be made from best practice.

Increasingly in recent years Member States have been applying impact assessment measures to assure a high-quality regulatory environment. This instrument involves consultative processes that help policy makers identify at an early stage the likely effects of legislative proposals, including possible disproportionate compliance costs for enterprises or new and burdensome administrative procedures[15].

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9 See specifically Commission "Recommendation on the Transfer of Small and Medium-size Enterprises", OJ L 385, 31.12.1994; and Commission "Communication on the Transfer of Small and Medium-size Enterprises", OJ C 93, 28.03.1998.

10 Progress in all Member States except Luxembourg and Portugal.

11 Progress in all except in Greece, France, Italy, Portugal and Finland.

12 See "Highlights from the 2001 Survey", *Observatory of European SMEs*, 2002/1, European Commission, which found only between 10 % and 13 % of SMEs reporting administrative regulations as a major constraint.

13 See "Recruitment of Employees: Administrative Burdens on SMEs in Europe", *Observatory of European SMEs*, European Commission, forthcoming. The average number of administrative procedures for the first employee is 3.3, while for an additional employee it is 2.1. The Netherlands, Belgium, France and Spain stand out for the high number of procedures, followed by Greece, Ireland and Austria.

14 "Benchmarking the Administration of Business Start-ups", Best Project, op. cit., footnote 5. Setting up a private limited company can cost over EUR 2,000 in Austria but virtually nothing in the UK. This takes 35 days in Italy, but only 6 in the UK. Time and costs to register an individual enterprise are less, but still widely spread.

15 See for details "Business Impact Assessment in Member States", Best Project, op. cit., footnote 5.

Another area of administrative simplification concerns support for SME access to the new economy. Evidence suggests that European SMEs are not making wide use of ICT and e-business opportunities. However, its growth is being facilitated by initiatives in the areas of e-business framework policies, in raising awareness and ICT skills, in promoting SME support networks and in promoting Internet platforms for SMEs[16].

The Member States have successfully implemented over twenty *New Approach* directives related to technical harmonization in a large number of areas, establishing a transparent regulatory framework for enterprises working and ensuring for them a single market in Europe[17]. By supporting future legislative initiatives to be based on *New Approach* principles, these benefits can be extended to more enterprises. Together with the Commission the Member States have also contributed to the development of European, moving away from national, standards. There is now a comprehensive range of European standards that help enterprises to access the whole European market, communicate easily and make their products compatible. Because European standards contribute to enterprise competitiveness, Member States should continue to support their national standards bodies to work within European standardization.

Significant progress has also been made in e-government. Not only does this reduce the cost of interaction with the public sector but it will also increase the pressure for simpler and user-friendlier procedures[18]. Indeed, in recent months all Member States have recorded progress in improving the quality of public services aimed at businesses. Yet there is much more still to be done.

Finally, in the area of market performance and openness, data show strong intra-EU trade links. State aid is a factor distorting market performance but a majority of Member States has taken steps towards fulfilling the pledge made in the Stockholm European Council to demonstrate a downward trend of state aid in GDP by 2003 and to redirect aid towards horizontal objectives[19].

2.3. Financial resources

The availability of finance is critical for the establishment and growth of enterprises in general. For enterprises with innovative potential, but without collateral, it is a particular problem. It was identified as the third most important constraint to business performance in the EU, especially for small firms, although medium size firms also reported problems[20].

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16 See "Benchmarking National and Regional Policies in Support of e-Business for SMEs", op. cit., footnote 5.

17 The *New Approach* was initiated in 1985; see "Council Resolution of 7 May 1985 on a new approach to technical harmonisation and standards", OJ EC C 136/1 of 4 June 1985.

18 See "Benchmarking National and Regional Policies in Support of e-Business for SMEs", op. cit., footnote 5. This study examined eight measures applying to enterprises that are available on-line and concluded that the best results were in public services involving simple procedures in the fields of VAT, corporate taxation and customs declarations, while those concerned with building and environmental permits received the lowest scores.

19 State aid issues are reviewed more thoroughly in the European Commission's "Internal Market Scoreboard"; see, for example, the latest issue no. 10, May 2002.

20 See "Highlights from the 2001 Survey", *Observatory of European SMEs*, op. cit., footnote 12; over 20 % of respondents in the UK and around 20 % in Ireland and Italy reported difficulties in this area.

The availability of venture capital is often singled out as playing a critical role in the new economy renaissance of the US during the 1990s. Weak venture capital traditions in the EU have been associated with weak innovation and have been seen as obstacles to Europe's productivity growth[21]. It is in venture capital that the differences between Europe and the US are most marked. The US venture capital industry began to develop in the 1950s, in Europe (with the exception of the UK) in the 1990s, so the EU has a lot of ground to recover. As a result, although the amount of European venture capital has been increasing in recent years, it remains in most Member States significantly less than that raised in the US[22]. However, recent adverse economic and financial developments, together with the announced closure of the Neuer Markt at the end of the year, have weakened significantly the venture capital market, raising questions about the prospects for the development of a large and mature European venture capital market.

Faced with this situation, Member States have sought to foster the development of the venture capital market through structural reform and to support early stage venture capital funding through instruments such as regional seed funds, tax breaks or incubator support. Later-stage development generally appears to dominate the market although replacement and buy-outs play an important role too.

There is a strong positive relationship between the size of the venture capital market and the share of venture capital in institutional investor portfolios. A change in institutional behaviour could decisively strengthen the venture capital market.

Business angels networks are closely associated with venture capital funding. They are more prominent in the US than in Europe, but the number of networks in the EU has risen from 63 in 1999 to 158 in 2002[23].

Further, equity finance is very important in supporting innovative enterprises. A pattern has emerged, with Member States with high innovation potential (as suggested by business expenditure in research and development, BERD, as a proxy) being those with high equity market capitalisation[24]. A second group with an intermediate innovation record is characterised by lower levels of BERD and correspondingly lower stock market capitalisation[25]. A third group is characterised by lower levels of BERD with intermediate capitalisation ratios[26].

Institutional capital is an important element in equity markets. European institutional investors have in general invested less of their portfolios in equity markets than their American counterparts, who place some 50 % of their portfolios in equities[27].

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21 These issues have been addressed in detail in the 2001 and 2002 editions of the *European Competitiveness Report*, Commission Staff Working Paper, SEC(2001) 1705 of 29 October 2001 and SEC(2002) 528 of 21.05.2002, respectively.

22 In 2000, for example, a peak year for venture capital funding, it represented 0.9 % of GDP in the US, compared to 0.4 % in the Netherlands and the UK, and 0.2 % of GDP in Sweden, the three Member States with the largest venture capital markets in the EU.

23 See "Business Angels", op. cit., footnote 5, Final Report, European Commission, Enterprise Directorate General, September 2002.

24 Sweden and Finland, less so the UK and the Netherlands, together with the US.

25 Germany, Denmark, Belgium and France.

26 Greece, Italy, Portugal and Spain.

27 As usual, there are exceptions among the Member States. Sweden and the UK institutions have placed between 57 % and 67 % of their portfolios in equities.

Further, the equity share in institutional portfolios has tended to decline since 2001, possibly as a result of the economic downturn.

Nonetheless there has been an encouraging development in the growth of newly listed companies on Europe's stock exchanges in recent years. Good economic prospects certainly helped this, but it is also a benefit flowing from advancing financial market liberalisation and integration. Further progress in this important field will bring direct benefits to EU industry and innovation.

Stock options granted to employees of small, growth-oriented firms, have been a feature of the 1990s in the US. By giving employees a stake in future gains, they help companies retain skilled employees. They are also present in venture capital portfolios. Notwithstanding recent scandals in certain US corporations that have used stock options, they remain a valid and innovative way to share in the future profits of enterprises, but they obviously need to be designed in a proper manner.

Yet framework conditions for stock options are poorly defined in a majority of Member States. The resulting legal uncertainty deters their use. Further, they are often taxed both as employment income and as capital gains on subsequent sale. Effective tax rates average 30 % in the EU compared to 20 % in the US[28]. It is therefore hardly surprising that EU companies have made relatively little use of this instrument[29].

2.4. Human resources

In recent years a particular issue of skill shortages and imbalances has become a policy concern[30]. High (but since 1997 generally decreasing levels of) unemployment in the EU has coincided with labour shortages of especially high-skilled individuals[31]. At the same time, the demand for medium– to high–skilled employees in the high-growth period of the late 1990s has been the most marked in the EU[32]. These shortages constitute a significant obstacle to economic growth. The problem is not just one of inadequate labour mobility or of insufficient (lifetime) income differentials across professions, but also one of a mismatch of the supply of skills originating in the educational system of the Member States and of the demand for labour[33]. In recent years, firms at the frontiers of technology apparently report

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28 Rates range from over 60 % in Denmark to a little over 10 % in the UK; the Netherlands, Ireland, Greece, France and Belgium apply a special rate; see "Taxation of Stock Options in the EU and the US", study prepared by Price Waterhouse Coopers for the European Commission, 2002; the estimates are preliminary.

29 See "Highlights from the 2001 Survey", op. cit., footnote 12; only 2 % of European SMEs use stock options and another 4 % plan to do so. The Commission has recently set out ideas for encouraging the financial participation of employees in "On a Framework for the Promotion of Employee Financial Participation", COM(2002) 364 final, 05 July 2002.

30 The 2001 *European Competitiveness Report* raised this issue and the 2002 *Report* addressed it in more detail, specifically in the context of the supply of the educational system and the demand for skill-disaggregated labour; see 2001 and 2002 *European Competitiveness Report*, op. cit., footnote 21.

31 The 2002 *European Competitiveness Report* indicated that, while secularly increasing, the ratio of average years of educational attainment of the working population in the EU in 1999 relative to the US was around 89 % compared to 97 % in Japan; see 2002 *European Competitiveness Report,* op. cit., footnote 21, chapter II.

32 See *Employment in Europe 2001*, European Commission, 2001.

33 The ECB found that the educational mismatch has worsened markedly in the period 1992 to 2000; see "Labour Market Mismatches in the Euro Area Countries", ECB, March 2002.

shortages of scientists, in contrast to the US where such shortages have been less of a problem. Greater awareness of the possible need for reforms in the educational systems is necessary especially in times of technological and organisational innovations; the Commission is contributing in a variety of ways to this area.

The area of ICT has recorded most difficulties. In 2002, across all Member States between 7 % and 13 % of the demand for ICT skills could not be satisfied. Estimates for 2005 suggest that, while there will be a generally balanced growth in demand for and supply of ICT skills, the shortage will increase[34]. This signals an important need for steps to be taken urgently to correct the underlying forces that give rise to such labour market difficulties. Shortages are also appearing in some areas of natural sciences.

To become the (most) knowledge-based economy by 2010, the Member States must accelerate their efforts in the development of human capital and, in particular, must target more precisely the characteristics of the educational systems[35]. Furthermore, while the percentage of population (aged 25-64 years) participating as life-long learners in education and training has been increasing, it still remains very low; even though some Member States have considerably higher scores than the average, the majority scores rather poorly[36]. The evidence suggests the need for urgent action in these areas.

Finally, while some Member States score very well in literacy and mathematics and scientific skills, this may not be enough: several other nations (Japan, Canada and Korea for example) score even better.

2.5. Innovation, knowledge and ICT diffusion

A record of weak innovation in Europe stands parallel to and mirrors one of weak diffusion and of insufficient exploitation of the cumulativeness of knowledge[37]. Innovation is highly correlated with expenditure on R&D. Recognising this, the Commission suggested in its 2002 *Spring Report* a target of 3 % of GDP to be achieved by 2010 and the Barcelona European Council adopted this recommendation; in September 2002 the Commission adopted a corresponding

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34 This is estimated to amount to 1.7 million employees in absolute terms, across all Member States, corresponding to between 8 % and 14 % of the demand, depending on the Member State.

35 Only 12 % of graduates in the EU in 1999 had graduate including doctoral (tertiary type–A and advanced) studies compared to 27 % in the US. Among the Member States the Netherlands recorded the highest score (20 %) while in several this ratio was a little over 5 %. Particularly low percentages are also found in mathematics and computer science (4.4 %) but this is a better performance compared to the US (3.2 %).

36 The percent of population participating as life-long learners in education and training has risen from 5.7 % to 8.4 % between 1996 and 2001; in 2001, in Sweden and the UK this was around 22 %, followed by Finland at 19.3 %, Denmark at 17.8 % and the Netherlands at 16.3 %; in Greece it was the lowest at 1.4 %. Clearly, to promote social inclusion it is also necessary to increase the participation of medium– and low–skilded workers in training and life–long learning; in 2001, 15.7 % of high skilled, 9.8 % of medium skilled and only 2.5 % of low skilled workers were involved in these activities.

37 These have been discussed extensively in the 2001 and 2002 editions of the *European Competitiveness Report,* op. cit., footnote 21, and especially evidence on the former has been provided in, for example, the 2001 *Innovation Scoreboard*, Commission Staff Working Document, SEC(2001) 1414, 14 September 2001.

Communication[38]. Member States have, without exception, acknowledged the importance of strengthening their performance in R&D and innovation and have all committed themselves to contributing to the achievement of the 3 % of GDP target for the EU[39].

Innovation capacity has become a critical determinant of the competitiveness of advanced nations. Recent evidence suggests that ten of the fifteen Member States belong to the group of twenty nations with the highest values of the national innovative capacity[40]. While these estimates are encouraging, these are still not good enough and the conditions for realising sustained innovation performance have yet to become firmly established in the EU.

Total R&D spending is considerably higher in the US than the EU. However, the picture here is diverse with data ranging from 3.8 % of GDP in Sweden to a little over 0.5 % of GDP in Greece and Portugal[41]. Clearly, all Member States need to improve the environment for R&D spending and, acknowledging its importance, several Member States have now adopted quantitative targets for this variable[42].

The extent of ICT diffusion is an important signal of the modernisation process under way in an economy. The 2001 *European Competitiveness Report* addressed extensively the role of ICT in productivity growth and concluded that low ICT investment and diffusion explain in part the slowdown in Europe's productivity growth in recent years[43]. Reflecting the burst of the dot.com bubble in late 2001, ICT expenditure as percent of GDP has declined both in the US and in the EU but in the latter the slowdown has been less pronounced.

Access to the Internet has grown substantially in recent years and in 2001 close to 90 % of EU enterprises had access to the Internet. While a large number of them had their own web sites few could accept orders and conduct commercial transactions on the web. Household Internet access has risen as well between 2000 and 2001 in a majority of Member States. Clearly, government policies aimed at modernising the national economic environment and making it possible for citizens to take advantage of the benefits from electronic transaction are reflected in this growth. Rapid progress has taken place in broadband penetration, with twice as many of EU

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38 See *The Lisbon Strategy – Making Change Happen*, op. cit., footnote 1; see also "More Research for Europe, Towards 3 % of GDP", Communication from the Commission, COM(2002) 499 of 11 September 2002. In 2000 the share of R&D in GDP was 1.9 % in Europe, 2.7 % in the US and 3 % in Japan.

39 Clearly, the individual targets set by each Member State for R&D expenditure, which are discussed later, are set within the overall objective of achieving the EU target of 3 % of GDP R&D spending by 2010, of which 2/3 is undertaken by the private sector.

40 The evidence is based on an index aggregating the following four sub-indices: scientific and technical personnel, innovation policy, cluster innovation environment and linkages; see M. Porter and S. Stern (2002): "National Innovative Capacity", chapter 2.2 in *The Global Competitiveness Report 2001-2002*, World Economic Forum, Oxford University Press. The highest value of the index, with data for 2001, is registered by the US (30.3) but Finland (29.1), Germany (27.2), the UK (27.0), the Netherlands (26.9), Sweden (26.9) and France 26.8) belong to the group of the first ten. Another four Member States (Belgium, Ireland, Austria and Denmark) belong to the group of the next ten.

41 Greece's share is 0.51 % of GDP and Portugal's 0.7 % of GDP. For the complete R&D data see Towards a European Research Area*, Key Figures 2001*, Special Edition, Indicators for Benchmarking of National Research Policies, European Commission, figure 2.1.1.

42 See the discussion in section 3 below.

43 See 2001 *European Competitiveness Report*, op. cit., footnote 21, especially chapter III.

households (14 %) reporting access in 2001 compared to a year ago and should be further encouraged[44].

The percentage of purchases and sales conducted through the Internet remains extremely small[45], reflecting among other things the nature of products but also the legal framework where electronic commerce is taking place. Familiarity and traditions may also play an important role here.

The 2001 *Enterprise Policy Scoreboard* reported the presence of a negative relationship between the cost of residential communication and household Internet penetration, while professional access was found to be less elastic to cost[46]. Access costs have continued to decline across the Member States thus underpinning the increased penetration rates recorded. Nevertheless, significant differences remain. On the basis of PPS prices, the dial-up cost of the Internet ranged from euro 20.7 PPS for 30 hours of use per month in Finland to euro 45.8 PPS in Belgium and, with the exception of Germany and the UK in addition to Finland, the cost was higher than euro 30 PPS; in the US the corresponding cost was euro 20.4 PPS.

2.6. Sustainable development

A new section related to sustainable development has been incorporated for the first time in the 2002 *Enterprise Scoreboard*. Currently only indicators referring to sustainable development in EU manufacturing have been developed. This is clearly only one aspect of work on sustainable development and does not reflect the progress that has been or still needs to be made in the other areas of sustainable development.

The key concept in the area of manufacturing is that of eco-efficiency, the ratio of economic output to environmental pressure measured either by emission of pollutant or resources used[47]. In the years 1990-2000 industry in the Member States has recorded significant environmental gains across four indicators.

Industrial eco-efficiency in the EU has improved by some 13 % between 1990 and 2000, broadly in line with the growth in manufacturing output. Over this period, a major improvement in eco-efficiency of energy consumption (by over 25 %) has been recorded in the case of Ireland, Luxembourg, Sweden, Germany, Finland and France, but there was deterioration in the case of Greece, Portugal, Spain and the UK. The eco-efficiency of manufacturing in the area of greenhouse gas emissions has improved by almost 30 %, leading to a fall in industrial greenhouse emissions by 10 %, despite the increase in industrial output. Improvements were recorded in a

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44 Already in five Member States (Denmark, Germany, Luxembourg, the Netherlands and Austria) over 20 % of households have broadband Internet access.

45 In 2001 for the EU as a whole, Internet sales correspond to less than 2 % of the total while purchases somewhat higher than 3 %. Danish, German, Irish, Austrian and Finnish enterprises executed between 4 % and 6 % of their purchases through the Internet.

46 See *Benchmarking Enterprise Policy: Results from the 2001 Scoreboard*, Commission Staff Working Document, SEC(2001) 1900, 21 November 2001, indicators VII.5.b and VII.5.c.

47 See 2002 *European Competitiveness Report*, op. cit., footnote 21, chapter V for more details. Note that care is required in interpreting eco-efficiency ratios between countries, not least because differences between countries in the measured ratio may partly reflect differences in industrial structure, rather than environmental performance. Nevertheless examining the pattern of changes in the eco-efficiencies over longer time periods is a way of giving some general indication of the direction of relative changes in environmental performance.

majority of Member States especially in Luxembourg, Ireland, Finland and Germany; there were, however, some small reductions in Greece, Portugal, Spain and Denmark.

Industrial emissions of acidifying gasses, responsible for acid rain, have declined by some 48 % during the ten years despite the rise of 11 % in manufacturing output during this period. All Member States have recorded improvements in this area, which were especially marked in Germany, Finland, Ireland and Luxembourg while smallest improvement occurred in Portugal.

Finally, European manufacturing improved its eco-efficiency of ozone-precursors[48] by over 40 % and overall emissions of such gases has fallen by some 27 % despite the rise in manufacturing output during the 1990s. A majority of Member States has recorded improvements in eco-efficiency, with the largest occurring in Luxembourg, Ireland and the Netherlands and amounting to over 100 %. Small deterioration has occurred in the case of Denmark, Greece and Portugal.

3. QUANTITATIVE TARGETS IN ENTERPRISE POLICY

3.1. Motivation

The open method of co-ordination established in the Lisbon European Council encourages the Commission and the Member States to work together, learning from best practice and developing better policy in the light of all the relevant circumstances. In many cases, it involves agreeing targets for EU level performance while not necessarily requiring individual Member States to set the same targets for national action. The Europe-wide targets have generally been either Community targets or uniform national targets. Targeting in enterprise policy offers the possibility of tailor-made targets adapted to the unique conditions in each Member State. The effectiveness of enterprise policy depends not just on the ability of Member States to draw on the experience of policy initiatives in other Member States or elsewhere, but on their determination to implement the measures. Benchmarking exercises are serving to identify the areas where improvements can be made. Quantitative targets in enterprise policy offer an instrument to help achieve the follow through by committing each Member States while respecting fully the principle of subsidiarity.

Targets have been used already in other areas of EU policy, most famously for entry into EMU. But Member States also use targets elsewhere– such as for inflation, for spending and revenue – suggesting that their benefits can be significant.

In the case of enterprise policy, the Commission and the Member States have been invited by both the Industry Council and the European Council to make progress in implementing quantitative targets[49]. This is the first time now that Commission formally reports on the progress made in response to this invitation.

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[48] Ground-level ozone is a secondary pollutant formed by the oxidation of volatile organic compounds and carbon monoxide in the presence of nitrogen oxides and sunlight. Ozone-precursor gases consist of non-methane volatile compounds, nitrogen oxides, carbon monoxides and methane.

[49] See Council Conclusions, Energy/Industry, Competitiveness and Enterprise Policy-Conclusions, 14837/01 (Presse 452-6), 4/5 XII.2001; Stockholm European Council Presidency Conclusions

3.2. Member States' targets in enterprise policy

As a result of co-operation between the Commission and the Member States a common framework for quantitative targets has been developed. This provides for Member States that feel ready to do so to declare targets on the basis of agreed indicators in the seven areas monitored in the *Enterprise Scoreboard*[50]:

– Entrepreneurship;

– The regulatory and administrative environment;

– Access to finance;

– Access to human capital;

– Innovation and knowledge diffusion;

– Access to ICT;

– Open and well-functioning markets.

A number of Member States have communicated to the Commission and to the Member States, in the framework of discussions within a Contact Group, their intentions with reference to particular objectives or targets in these areas. The definition and choice of targets by the Member States is, of course, voluntary. At present, every monitoring area has at least one target declared by a Member State. Indeed, a number of Member States have declared several targets[51].

Member States have generally found it easier to declare targets in the area of innovation and knowledge diffusion than elsewhere. There may be all sorts of reasons for this: the notion that lesser improvements are needed in other areas; constitutional difficulties or traditions; perceptions as to the key issues. But what matters is that a significant start has been made. A framework has been established and a first significant array of targets has been declared.

4. CONCLUDING REMARKS

The review of recent enterprise-related work suggests the following principal conclusions:

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24 March 2001 NR. 100/1/01; Council Meeting, Industry/Energy, 2433 RO Press: 164 NR. 9311/02 6 and 7 June 2002; and Council Conclusions SN 2340/3/02 REV 3, 21 May 2002; see also "Informal Industry Ministerial in Manchester to discuss EU Enterprise Policy Targets Plan", IP/01/229, 19 February 2001 for a joint announcement made by Commissioners Bolkestein, Busquin and Liikanen on this and related issues.

50 The list of these indicators, which are considered as suitable for targeting in the area of enterprise policy and has also been accepted as basis for further work in the Contact Group, is at annex. Some relevant discussion about the Contact Group and related details is presented in "Quantitative Targets in Enterprise Policy Steps towards the Lisbon Objectives", Commission Staff Working Document, SEC(2002) 1214, 07.11.2002.

51 The Netherlands (12), Ireland (11), Sweden (8), France (7) and Portugal (7) are the leaders.

– There have been significant improvements in several areas that determine the environment for the start-up and growth of enterprises. Progress continues to take place and, compared to recent years, the prospects for enterprise growth in the EU are improving significantly.

– Member States are taking steps to modernise their economies and to implement structural reforms that will ultimately bring the EU closer to the objectives of the Lisbon strategy. While these steps may be concentrated in small and apparently special areas of policy importance, the cumulative effect of these improvements is creating an environment where a more vigorous enterprise culture can flourish. Together with reforms in product, labour and capital markets, these will create an environment favourable to enterprise growth.

– Clearly, progress cannot stop here. It is not only the EU that is making progress. The resurgence of productivity abroad and the EU's late start leave no room for complacency. It is not enough to be doing better. The Lisbon goal is to become the best. That is still some way off.

– Appropriately chosen quantitative targets are an instrument that could help strengthen the drive towards a better enterprise environment in the EU, not just by focusing the effort for change, but by signalling progress really achieved. In turn, this feeds business confidence, as vital an element in success as any.

A set of targets declared by Member States within the scope of the open method of co-ordination is attached at annex. This is an important declaration of intent. What is now needed is implementation of policies that will ensure the realisation of these targets.

Therefore, the Commission proposes that, in the framework of the open method of co-ordination, the Member States and the Commission continue work to:

(1) Further develop the array of declared targets, adapting them where necessary;

(2) Take appropriate steps to develop policies to ensure that the targets are met, taking account of best practice;

(3) Monitor and report on progress achieved.

The Commission invites the Council to endorse this approach. With quantitative targets, enterprise policy in the Member States and in the EU could take a precise and concrete dimension. Fulfilment of the targets proposed by the Member States will bring the EU closer to realising the broader objectives about our economy and society set in the Lisbon strategy.

ANNEX I: QUANTITATIVE TARGETS DECLARED BY MEMBER STATES IN THE CONTACT GROUP

Table 1: Quantitative Targets in Enterprise Policy			
Member State	**Indicator**	**Current position (year)**	**Target (year)**
A. Entrepreneurship			
France	New enterprises	170,000 per year	220,000 per year (2007)
France	New enterprises created through public incubators	550	865 (2005)
Ireland	Real birth rates of high potential start ups	48 (1999)	520 (accumulated) (2006)
Netherlands	Churning of enterprises (shut down and new enterprises)		Higher than in Belgium, Germany, France and UK
Sweden	Number of real start-ups	144.175 (1998-2001)	150.000 (2003-2006)
Sweden	Number of self-employed	357.600	380.000 (2006)
UK	Number of people considering to go into business		Raise
B. Regulatory and Administrative Environment			
Belgium	Administrative burdens		Reduction by 25 %
Denmark	Administrative burdens		Reduction by 25 % (2010)
Germany	Share of federal government services on-line		100 % (2005)
Spain	Time to set up a company	84 days	Reduction by 50 % = 42 days (2006)
Spain	Share of government services on-line		40 % (2006)
Ireland	Impact assessment of primary legislation	0 % (2001)	100 % (2006)
Netherlands	Administrative burdens		Reduction by 25 %
Portugal	Time to set up a company	10 – 25 days	Reduction by 50 % (2003)
Portugal	Time to obtain an industry license	About 150 days	Reduction by 50 % = 75 days (2003)
Portugal	Share of government services on-line		100 % (2005)
Sweden	Impact assessment	100 % (2001)	100 % (2001-2010)
UK	Impact assessment		100 % (2005)
UK	Share of government services on-line		100 % (2005)
C. Access to finance			
France	Investment in risk capital	Euro 487 million	Euro 1 billion (2010)

Ireland	Number of newly listed companies	1 per year (2002)	2-3 per year (2006)
Ireland	Venture capital investment (% GDP)	0,22 % (2000)	0,80 % (2006)
D. Human capital			
Denmark	Number of young people completing training and education skills		Increase
Germany	Share of youth beginning studies, percent of total		40 % (2010)
Netherlands	Participation in education and training		To be in the leading group (2010)
Sweden	The number of new research graduates	8750 (1997-2000)	9170 (2001-2004)
Sweden	Number of new graduated engineers and architects	14812 (1997-2000)	16500 (2001-2004)
Sweden	Number of new graduated teachers	6158 (2001)	28000 (2001-2004)
Sweden	Math/science/technology teachers, percent of total new teachers	23 %	33 % (2001-2004)
Sweden	Number of new university graduates with Master's degrees	21053 (1997-2000)	25100 (2001-2004)
UK	Participation in higher education of those aged 18-30 years		Raise towards 50 % (2010)
UK	Number of adults in the labour force lacking NVQ2 or equivalent qualifications		Reduce by at least 40 % (2010)
E. Innovation and knowledge diffusion			
Austria	GERD % of GDP	1,9 %	2,5 % (2005)
Denmark	BERD % of GDP	0,7 %	1 % (2010)
Denmark	GERD % of GDP	2 %	3 % (2010)
Germany	GERD % of GDP	2,4 % (2000)	3 % (2010)
Spain	BERD % of GDP	0,5 % (2000)	0,84 % (2003)
Spain	Patents per mio. people	13 (2000)	26 (2006), 42 (2010)
France	GERD % of GDP	2,19 %	3 % (2010)
France	BERD % of GDP	1,37 %	2 % (2010)
Ireland	Patents applied for per mio. people	340,3 (2001)	350 (2006)
Ireland	Patents granted per mio. people	95,3 (2001)	100 (2006)
Ireland	GERD % of GDP	0,88 % (1999)	2 % (2006)
Ireland	BERD % of GDP	0,33 % (1999)	0,80 % (2006)
Netherlands	GERD % of GDP	Marginally greater than EU average	Among the leading EU nations (2010)
Netherlands	BERD % of GDP	Marginally greater than EU average	Higher than EU average (2005)
Netherlands	R&D expenditure on ICT by enterprises and research institutions		Higher growth than other technology areas
Netherlands	Innovative enterprises		In the leading group (2010)

Netherlands	Co-operating innovative enterprises		In the leading group (2010)
Netherlands	Innovative enterprises co-operating with research		In the leading group (2010)
Netherlands	Share in EPO patents	4th in EU	In the leading group (2010)
Netherlands	Profits from innovations		In the leading group (2010)
Portugal	GERD % of GDP	0,8 % (2002)	1 % (2003)
Finland	GERD % of GDP	3,3 % (2000)	3,5 % (2004)
F. Access to ICT			
Germany	SMEs with e-strategy, percent of total		20 % (2005)
Germany	Internet users, percent of population		70 % (2005)
Spain	Internet access of enterprises (with more than ten employees)	92 % (2001)	97 % (2006), 99 % (2010)
Spain	Access to broadband	2,07 % (2002)	13,75 % (2006), 22 % (2010)
France	SME access to internet, percent of total	65 %	90 % (2006)
France	Household access to broadband, in percent	5 %	25 % (2006)
Ireland	Enterprise access to internet, percent of total	90 % (2000)	95 % (2006)
Ireland	Business telephone charges, relative to OECD countries	Top quartile (2002)	Top decile (2006)
Ireland	Household access to broadband	0 % (2000)	5 % (2006)
Netherlands	SMEs with on-line transactions, percent of total		66 % (2005)
Portugal	Portuguese information on the Internet		times 10 (2006)
Portugal	Number of people with basic ICT skills		2 mio. (2006)
Portugal	Households access to PCs		50 % (2003)
G. Open and well-functioning markets			
Denmark	Markets where competitive conditions are problematic		Reduced by 50 % (2010)

ANNEX II: LIST OF INDICATORS

The list of indicators, considered as suitable for targeting in the area of enterprise policy, which has also been accepted as basis for further work in the Contact Group, as well as the corresponding section where they are discussed in the 2002 *Enterprise Policy Scoreboard*, is shown in the Table.

Enterprise policy area	***Indicator***	***Reference to the 2002 Enterprise Scoreboard***	***Comment***
Entrepreneurship	Real birth rates of enterprises	5.1	To develop further
	Company registration – time and costs	4.4	
	Business incubators per million employed	4.5	
Regulatory and administrative environment	Use of Business Impact Assessment (Index)		To develop further
	e-Government (information, emails, forms)	2.2	
Access to finance	Number of newly listed companies relative to listed companies	1.2	3-year average
	Early/later stage venture capital investments, % of GDP	1.4	
Human capital	Share of population (aged 25-64 years) with tertiary education	5.1	
	Number of new graduates in science, engineering and business administration	5.2	To develop further
	Participation (25-64) in education and training	5.3	
Innovation and knowledge diffusion	Business expenditure on R&D	6.1	
	Public financing of business R&D	6.2	
	Number of patents per million employees	6.3	
Access to ICT	Internet access in enterprises	7.2	
	Broadband penetration (in percentage of households)	7.4	
	Communications costs (business telephone charges)	7.5	
Open and well-functioning markets	State aid	3.2	