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Bologna Process

Stocktaking Report 2007

**Report presented by the Bologna Follow-up Group to the
Ministerial Conference in London, May 2007**

Bologna Follow-up Group

Stocktaking Working Group 2005-2007

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Bologna Scorecard Summary

Country scorecards (*not included in this draft*)

Acknowledgements

Executive summary

Outline of the 2007 stocktaking report

This report on the Bologna Process stocktaking was prepared for the London Ministerial meeting in May 2007. The report has three parts.

Part 1 explains the background to the 2007 stocktaking exercise, linking it to the findings of the 2005 stocktaking report and to the Bergen communiqué. It also describes the methodology that was used in the 2007 stocktaking.

Part 2 includes quantitative and qualitative analysis of the stocktaking results.

Part 3 draws conclusions about progress towards achieving the goals that were set by the Ministers in Bergen and makes recommendations for the future based on the analysis of the 2007 stocktaking results.

Summary of findings from the 2007 stocktaking

There are three main findings from the 2007 stocktaking:

1. There has been good progress in the Bologna Process since Bergen.
2. The outlook for achieving the goals of the Bologna Process by 2010 is good, but there are still some challenges to be faced.
3. Stocktaking works well as an integral part of the Bologna Process strategy.

Conclusion 1

There has been good progress on achieving the targets set in Bergen

The 2007 scorecard shows that the overall picture within the Bologna Process is much more “green” than it was in 2005. The stocktaking results show that there has been considerable progress towards achieving the goals set by the Ministers in Bergen.

Good progress on the three-cycle degree system

The three-cycle degree system is now at an advanced stage of implementation across the participating countries. The access from one cycle to the next has improved, and there is a trend towards providing structured doctoral programmes.

Work has started on implementing national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA.

Some elements of flexible learning paths in higher education exist in all countries. In some countries they are at a more developed stage and include procedures for the recognition of prior learning.

Good progress on quality assurance

Implementation of the *Standards and Guidelines for Quality Assurance in the European Higher Education Area*, adopted in Bergen, has started on a widespread basis.

Student involvement in quality assurance has grown significantly since 2005, while there is more work to be done on extending the level of international participation.

Good progress on recognition of degrees and study periods

There is good progress towards incorporating the principles of the Lisbon Recognition Convention in national legislation and institutional practice. However not all countries have yet ratified the Convention.

Countries have developed national action plans to improve the quality of their recognition processes.

There is potential for a significant increase in the number of joint degrees awarded in two or more countries. Legal barriers to the recognition of joint degrees have been largely removed.

Higher education institutions have begun to recognise prior learning (including non-formal and informal learning) for access to higher education programmes and qualifications. However there is more work to be done in this area.

Linking higher education and research

Many countries are strengthening the links between the higher education and research sectors.

Some countries have concrete plans to increase the numbers of doctoral graduates taking up research careers.

Conclusion 2

The outlook for achieving the goals of the Bologna Process by 2010 is good, but there are still some challenges to be faced

There has been good progress up to now, however it is not uniform across all countries and all action lines. There is a need to look ahead and focus on reaching all the goals of the Bologna Process in each participating country by 2010.

The Bologna process is an effective catalyst for reform at national level

The Bologna Process has driven the process of higher education reform at national level. Higher education institutions, their staff and students, business and social partners, and international organisations are more actively engaged as partners in implementing the Bologna Process than was previously the case.

The sharing of expertise has contributed to building capacity at both institutional and national levels so that there has been measurable progress across all participating countries.

There is a need to link all the action lines

While the 2007 stocktaking found that there has been good progress on specific action lines and indicators, it is not enough to look at these in isolation because all aspects of the Bologna Process are interdependent. There are two themes that link all action lines: a focus on *learners*, and a focus on *learning outcomes*.

If the Bologna Process is to be successful in meeting the needs and expectations of learners, all countries need to use learning outcomes as a basis for their national qualifications frameworks, systems for credit transfer and accumulation, the diploma supplement, recognition of prior learning and quality assurance. This is a precondition for achieving many of the goals of the Bologna Process by 2010.

Conclusion 3

Stocktaking works well as an integral part of the Bologna Process strategy

Stocktaking within the Bologna Process involves collaborative peer-reported self-evaluation, which has been effective in encouraging countries to take action at national level. All countries have made progress, and stocktaking has made the progress visible.

From the experience of both the 2005 and 2007 stocktaking exercises, it is clear that stocktaking within the Bologna Process works best when it is an integral part of a goal-driven development strategy that includes five “steps to success”:

1. Agree the policy goals, linking them to a vision for the future that is shared by all participating countries
2. Set targets to be achieved within a certain time frame (make sure they are specific, measurable, achievable, relevant and timed: SMART)
3. Take action at national level and collectively (provide relevant support, share good practice, encourage peer collaboration)
4. Review progress individually: self-evaluation using agreed criteria (scorecard) complemented by qualitative reporting
5. Evaluate achievement collectively (stocktaking).

Recommendations from the 2007 stocktaking

Recommendation to Ministers

Set clear policy goals and specific targets for the next period of the Bologna Process, especially in the areas of the third cycle, employability, research, lifelong learning, flexible learning paths and the social dimension.

Recommendations for countries

1. Work towards fully implementing a national qualifications framework based on learning outcomes by 2010.
2. Link the development of the framework to other Bologna action lines, including quality assurance, credit transfer and accumulation systems, lifelong learning, flexible learning paths and the social dimension.
3. Ensure that progress is promoted across all action lines, including the more challenging aspects that are not easily and immediately attainable.
4. Make formal links between the Bologna Process and the ENIC/NARIC network to undertake further work on developing and implementing national action plans for recognition.

Recommendations for future stocktaking

Repeat the stocktaking in 2009, with the close collaboration of other partner organisations, including Eurydice, EUA and ESIB, in setting out the timetable and the arrangements for data collection and analysis.

1

2007 stocktaking: background and methodology

This part of the report explains the background to the 2007 stocktaking exercise, linking it to the findings of the 2005 stocktaking report and to the Bergen communiqué. It also describes the methodology that was used in the 2007 stocktaking.

Background to the 2007 stocktaking exercise

The first stocktaking of progress in the Bologna process was carried out in 2005, following a decision taken by the Ministers at their 2003 meeting in Berlin. When the stocktaking working group presented its report to the ministerial meeting in Bergen in 2005, the Ministers accepted the recommendation that the stocktaking exercise should continue and they asked that a further report should be prepared for their meeting in London in May 2007.

This report presents the results of the 2007 stocktaking, which was designed to check the progress that participating countries have made on the aspects of the Bologna Process that are included in the Bergen communiqué. The report gives an overview of progress since 2005 and also of progress towards achieving the 2010 goals of the Bologna Process.

Building on the findings of the 2005 stocktaking

The 2005 stocktaking report concluded that very good progress had been made on achieving the targets in three priority action lines set by Ministers in the Berlin communiqué: quality assurance, degree system and recognition. However, the report also identified a number of important gaps in those areas.

For the *quality assurance* action line, the two main issues were the low level of student and international participation and the need to go beyond establishing quality assurance *systems* to promote a quality assurance *culture* in all aspects of higher education.

In the *degree system* action line, the issue of providing access to the next cycle gave rise to some controversy based on differing interpretations of the term “access”. Another issue was the need to engage social partners, especially employers, in the governance and decision-making of higher education systems to ensure the continuing relevance of degrees to employment.

In the action line for *recognition*, the 2005 stocktaking report showed that there were some problems in implementing tools such as the diploma supplement and it also emphasised the need for progress to be made on developing the emerging framework for qualifications of the EHEA.

The report recommended that the stocktaking exercise would continue and this was endorsed by the Ministers in the Bergen communiqué.

The Bergen communiqué: issues for stocktaking in 2007

In the Bergen communiqué, Ministers charged the Bologna Follow-up Group (BFUG) with continuing and widening the stocktaking process, and stated that they expected implementation of the three intermediate priorities (degree system, quality assurance, recognition of degrees and study periods) to be largely completed by 2007. Ministers asked the BFUG to include a number of specific issues in the 2007 stocktaking and underlined important aspects in which they expected results.

We expect stocktaking ... to continue in the fields of the degree system, quality assurance and recognition of degrees and study periods....

In particular, we shall look for progress in

- implementation of the standards and guidelines for quality assurance as proposed in the ENQA report;
- implementation of the national frameworks for qualifications;
- the awarding and recognition of joint degrees, including at the doctorate level;
- creating opportunities for flexible learning paths in higher education, including procedures for the recognition of prior learning. (Bergen Communiqué¹, p.5)

¹ The full text of the Bergen Communiqué is at http://www.bologna-bergen2005.no/Docs/00-Main_doc/050520_Bergen_Communique.pdf

Questions for the 2007 stocktaking

The priority action areas and the other main themes identified by the Ministers in the Bergen communiqué gave rise to a set of questions as a starting point for the 2007 stocktaking.

Questions about the degree system

How advanced is the implementation of the three cycle degree system?

Has work started on implementing a national framework for qualifications compatible with the overarching framework for qualifications of the EHEA?

Questions about quality assurance

Has each country started to implement the Standards and Guidelines for Quality Assurance in the European Higher Education Area adopted in Bergen?

What progress has been made as regards student involvement and international cooperation in quality assurance?

Questions about recognition of degrees and study periods

Have all countries ratified the Lisbon Recognition Convention as urged in the Bergen communiqué?

Has each country implemented the principles of the Lisbon Recognition Convention and incorporated them in national legislation as appropriate?

Has each country developed a national action plan to improve the quality of the process associated with the recognition of foreign qualifications?

Have all countries removed the obstacles for awarding and recognition of joint degrees (i.e. degrees awarded jointly by higher education institutions in two or more countries)?

Questions about flexible learning paths in higher education and recognition of prior learning

What progress has been made on creating opportunities for flexible learning paths in higher education, including procedures for the recognition of prior learning?

Are there procedures and arrangements in all countries for recognition of prior learning (including non-formal and informal learning) for access to higher education programmes and for allocating credits?

Questions about other themes from the Bergen communiqué

In addition to the three interim priority action lines, the Bergen communiqué also gave rise to questions to be included in the template for national reports about the role of higher education in research; about the employability of graduates; and about the role of the Bologna Process in promoting partnership at institutional and national levels.

Higher education and research

How well is the higher education sector linked with other research sectors in the participating countries?

What plans are in place to increase the numbers of doctoral candidates taking up research careers?

Employability of graduates

What measures are being taken to increase the employability of graduates with bachelor qualifications?

Partnership

How well are higher education institutions, their staff and students engaged as partners in the implementation of the Bologna Process?

To what extent are organisations representing business and the social partners cooperating in reaching the goals of the Bologna Process?

2007 stocktaking methodology

The Bologna Follow-up Group appointed a working group chaired by Prof. Andrejs Rauhvergers (Latvia) to carry out the stocktaking. The members of the working group were: Marie-Anne Persoons (Belgium - Flemish Community); Heli Aru (Estonia); Uta Grund (Germany); Foteini Asderaki (Greece); Sverre Rustad (Norway); Camelia Sturza (Romania, replaced Prof Vasile Isan); Darinka Vrecko (Slovenia); Prof Aybar Ertepinar (Turkey); David Crosier (European University Association); Stéphanie Oberheidt (Eurydice); Ann McVie (Bologna Secretariat); Cynthia Deane (Expert).

Terms of reference of the 2007 Stocktaking Working Group

The Bologna Follow-up Group asked the stocktaking working group to include two aspects in the 2007 stocktaking: firstly the issues that were explicitly mentioned in the Bergen communiqué as being part of the next stocktaking exercise, and secondly the related issues mentioned in the communiqué where Ministers wanted to see that progress had been made by 2007.

The working group was asked to

1. Identify the key issues to be addressed through the stocktaking exercise as well as the methodology to be used in this exercise
2. Collaborate with partner and other organisations in order to maximise the use of data sources
3. Define, where appropriate, the structure of a separate questionnaire to be used in the stocktaking should this be required
4. Prepare a structure for the national contributions to the stocktaking to be submitted by participating countries
5. Prepare a report for approval by the BFUG in advance of the London Conference in 2007.

Steps in the stocktaking process

In the period from December 2005 to April 2007 the working group, supported by the expert and the secretariat, completed the following steps in the stocktaking process:

1. Defining the framework for the stocktaking and deciding how to integrate data from various sources
2. Developing the stocktaking indicators and criteria for the 2007 scorecard

3. Formulating questions for the national reports and devising a template for the reports
4. Gathering data by asking countries to submit national reports
5. Analysing data from national reports and other sources
6. Preparing the stocktaking report.²

The framework for stocktaking in 2007

The 2007 stocktaking built on the methodology that was developed in 2005, and combined a quantitative and a qualitative approach to assessing progress within the Bologna Process. The first step for the working group was how decide to include the “related issues” in the stocktaking exercise. The BFUG advised that the experience of the previous stocktaking exercise, where clearly measurable information was included in the scorecard and other issues were covered in the text, was relevant in this context. The stocktaking working group adopted this framework as a way of combining quantitative and qualitative analysis of progress. It was also a way of keeping the stocktaking exercise manageable within the available resources.

It was decided that the data for the stocktaking would be drawn mainly from national reports submitted by all countries, backed up and validated by data from a number of other sources. As in 2005, the other data sources in 2007 were:

- Eurydice report: *Focus on the Structure of Higher Education in Europe*
- European Universities Association (EUA) report: *Trends 5*
- ESIB (National Unions of Students in Europe) survey: *Bologna with Student Eyes*.

The working group included a member from Eurydice and one from the European Universities Association (EUA), which made it possible to share data. However, the Eurydice questionnaire had been drawn up and issued before the working group met for the first time, so there was no opportunity to include specific questions that were relevant to stocktaking.

² The working group met five times: 9 December 2005; 27 February and 11 October 2006; 12-13 February and 26-27 March 2007.

The 2007 scorecard: stocktaking indicators and criteria

The working group used the 2005 scorecard indicators as a starting point, and made changes to take account of the progress that was expected to have happened within the two years since the previous stocktaking³. This meant that some of the 2005 indicators were amalgamated, some of the criteria for the colour categories were changed and some new indicators were added.

The working group decided that there would not be scorecard indicators for third cycle doctoral studies and flexible learning paths in higher education, but that these aspects would be included in national reports. They would then be treated within the qualitative part of the stocktaking report. The indicators for the 2007 stocktaking were approved by the Bologna Follow-up Group in April 2006.

National reports

The 2007 stocktaking differed from the 2005 exercise in that the scorecard criteria were agreed at an earlier stage in the process. The template for national reports was then designed to elicit the appropriate data and it was sent to all participating countries in May 2006 together with the scorecard.⁴ This meant that all countries knew in advance the criteria against which progress on the indicators would be assessed in the stocktaking exercise.

The deadline for submitting national reports was 15 December 2006, and by that date reports had been received from only eight countries. Most reports were submitted within a month of the closing date. There were a few countries that delayed the stocktaking process by submitting their reports very late. The last national report was received three months after the deadline. The total number of reports was 48: there are 46 countries in the Bologna Process, with two reports for Belgium and the United Kingdom.⁵

Analysing data from national reports and other sources

In their national reports, countries provided data about their progress on the Bologna action lines. They also described the processes initiated at national level to support implementation of the Bologna reforms. All national reports conformed to the template that was supplied, but not all responses directly answered the

³ The 2005 scorecard is included in the stocktaking report which is available at http://www.bologna-bergen2005.no/Bergen/050509_Stocktaking.pdf

⁴ The scorecard criteria and the template for national reports are at (insert url)

⁵ All national reports are available at <http://www.dfes.gov.uk/bologna/index.cfm?fuseaction=docs.list>

questions that were asked. This made it difficult to assign scores for the indicators, and on several occasions countries were asked to supply more information.

The secretariat sent the first draft of country scorecards to the countries for checking at the end of January 2007. If countries saw grounds to have a score revised, they were asked to supply relevant evidence to justify the change. It is significant to note that in 2007 six countries asked that a score be revised *downwards*, compared to just one country in 2005. This may suggest that countries are now more willing to present a true picture of their stage of progress and are less concerned with "looking good". In almost three-quarters of the requests, the score was changed on the basis of the new information that the country submitted. In some other cases, it was decided that the score would not change but an explanatory note would be added to the text that accompanies the country scorecard in the report.

When the analysis of stocktaking results from the national reports was complete, the working group had an opportunity to validate the findings against the Eurydice, EUA and ESIB data.

Preparing the stocktaking report

In preparing the 2007 stocktaking report, the working group wanted to produce a document that would give Ministers, policy makers and higher education practitioners a clear and comprehensive analysis of progress. While the scorecard is an important part of the report, the results need to be read in conjunction with the commentary to get a full picture of how the Bologna Process has advanced since 2005, and how it is positioned to achieve all its goals by 2010.

2

Analysis of 2007 stocktaking results

This part of the report analyses the results for of the stocktaking showing where there has been any notable progress or lack of progress. It includes results, comments and analysis for each indicator in the scorecard and also for the other aspects of the stocktaking that were not included in the scorecard. The level of progress is assessed by comparing the 2007 data with the 2005 stocktaking results, where the indicators are directly comparable. An "at a glance" summary of all scores is shown in the annex.

Stocktaking results for indicators included in the scorecard

Stocktaking on the Degree System

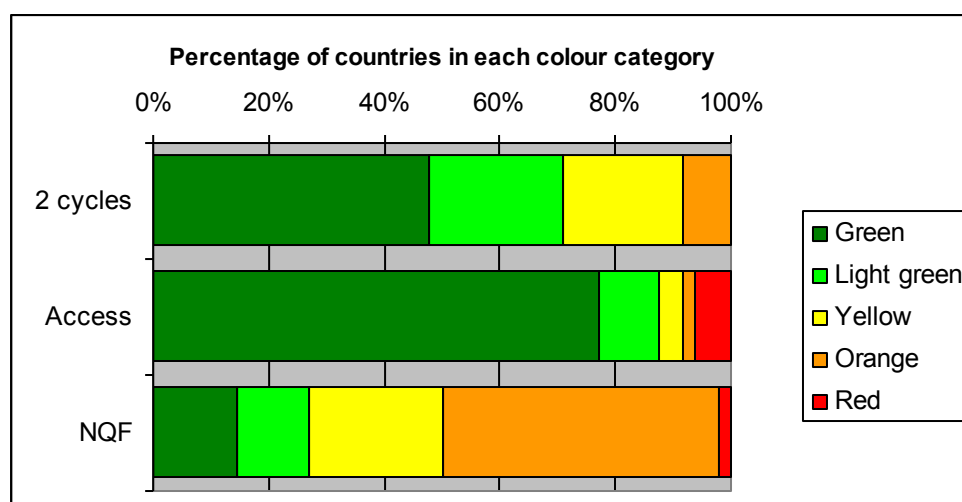
Table 1

Number of countries in each colour category for indicators 1-3

Degree system	Green	Light green	Yellow	Orange	Red
1. Stage of implementation of the first and second cycle	23	11	10	4	0
2. Access to the next cycle	37	5	2	1	3
3. Implementation of national qualifications framework	7	6	11	23	1

Figure 1a

Degree system: percentage of countries in each colour category for indicators 1-3



Indicator 1: Stage of implementation of the first and second cycle

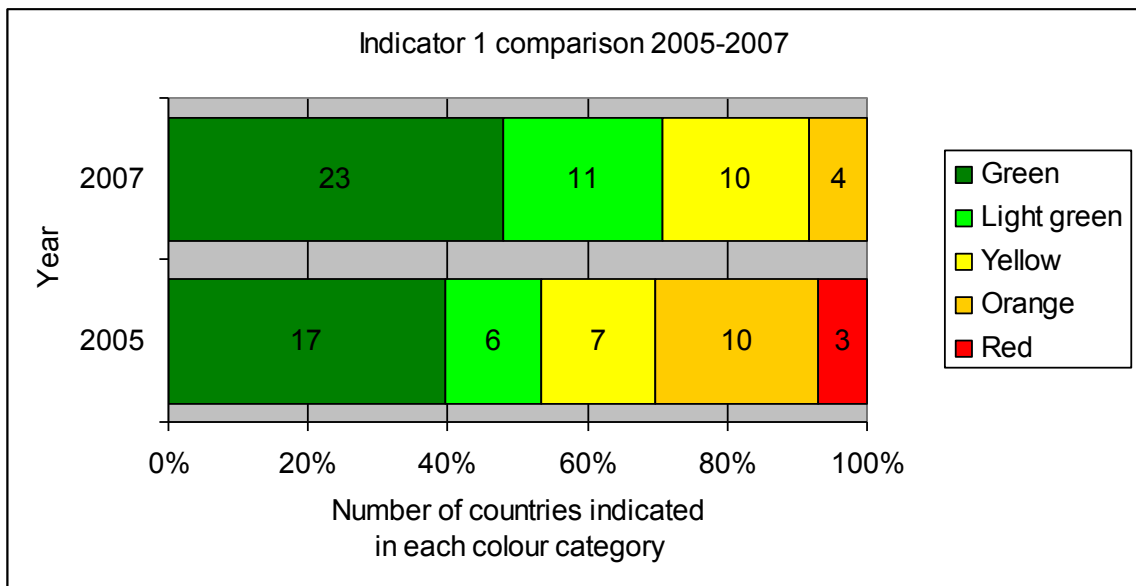
Number of countries in each score category for Indicator 1	23	11	10	4	0
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DEGREE SYSTEM	1. Stage of implementation of the first and second cycle
Green (5)	In 2006/07 at least 90% of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
Light green (4)	In 2006/07 60-89% of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
Yellow (3)	In 2006/07 30-59% of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles
Orange (2)	In 2006/07 less than 30% of all students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles OR Legislation for a degree system in accordance with the Bologna principles has been adopted and is awaiting implementation
Red (1)	No students are enrolled in a two-cycle degree system that is in accordance with the Bologna principles AND there is no legislation in force to make the degree system compatible with the Bologna principles

This was quite a demanding indicator because it replaced two of the 2005 indicators. Countries were asked to report on the percentage of students below doctoral level enrolled in the two-cycle degree system. It was a concrete measure, but several national reports gave no exact percentages.

Almost half of the countries have the vast majority of students already studying in the two-cycle degree system and another eleven countries have at least 60 per cent of students enrolled in the two-cycle degree system.

Fig 1b
Indicator 1: Stage of implementation of the first and second cycle⁶ -
Progress since 2005



Progress since 2005

The 2007 Indicator 1 and 2005 indicator 6 both measured the level of student enrolment in the two-cycle system. Fig. 1b shows that there has been good progress on implementing the first and second cycle since 2005: even though the indicator was more demanding in 2007, the results are substantially better.

Most countries are introducing the first and second cycle of the degree system gradually and progress is steady: there are only four countries that have completed legislation but have not yet implemented it. From the evidence of the 2007 stocktaking, this action line will be fully implemented by 2010 and this particular goal of the Bologna Process will be achieved.

⁶ 2005 criteria: "5" >81% of students enrolled in 2-cycle system; "4" 51-80%; "3" 25-50%; "2" 1-24%; "1"=0

Indicator 2: Access to the next cycle

Number of countries in each score category for Indicator 2.	37	5	2	1	3
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DEGREE SYSTEM	2. Access to the next cycle
Green (5)	All first cycle qualifications give access to several second cycle programmes and all second cycle qualifications give access to at least one third cycle programme without major transitional problems
Light green (4)	All first cycle qualifications give access to at least one second cycle programme and all second cycle qualifications give access to at least one third cycle programme without major transitional problems
Yellow (3)	There are some (less than 25%) first cycle qualifications that do not give access to the second cycle and/or some second cycle qualifications that do not give access to the third cycle
Orange (2)	A significant number (25 – 50%) of first and/or second cycle qualifications do not give access to the next cycle
Red (1)	Most (more than 50%) first and/or second cycle qualifications do not give access to the next cycle OR there are no arrangements for access to the next cycle

This indicator was meant to check whether national higher education structures ensure that students completing a Bologna cycle have access to the next cycle. The countries were asked to report whether first cycle graduates have access to several second cycle programmes (with a view to having more choice after the introduction of the two-cycle system) and whether second cycle graduates have access to at least one third cycle programme. As in the 2005 stocktaking, access was defined according to the Lisbon Recognition Convention: "Access – the right of qualified candidates to apply and to be considered for admission". Thus, the indicator measured whether students had the right to apply and be considered for admission, rather than the actual student numbers progressing to the next cycle.

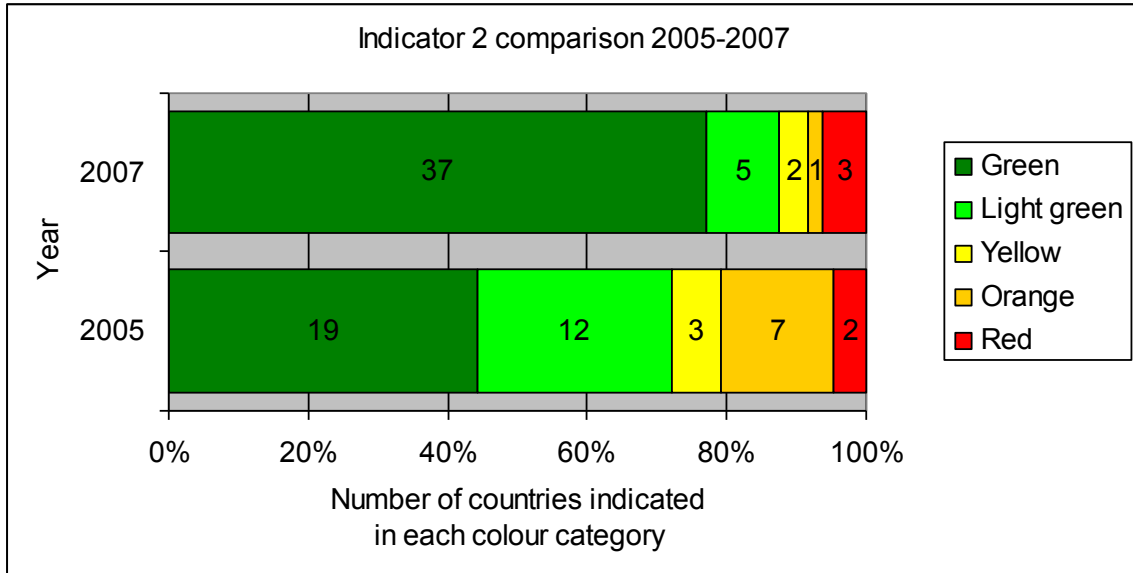
More than four-fifths of the countries report that there is access to the next cycle without barriers.

The principle behind this indicator is that there are clear pathways of progression for graduates from one cycle to the next cycle. While countries have reported that there are no “major transitional problems” between cycles, students and graduates may have different perceptions. With regard to progression between cycles, countries have taken a range of approaches.

- Bridging courses or other measures may be required in some countries when the students either seek admission to a different study field or they switch between academic and professional streams.
- In some countries there are two levels of bachelors, each of which matches the Dublin descriptors. However some of these qualifications do not usually give direct access to the second cycle and bridging courses or a period of relevant experience may be required. Such measures are seen by those countries as ways of widening access to the next cycle.
- In most countries, a second cycle qualification qualifies candidates for admission to the third cycle. The exceptions in some countries may be those second cycle qualifications that are in a different subject area than the first cycle, but even then bridging may be possible. Some countries admit first cycle graduates directly to third cycle studies under certain conditions.

For the future, national frameworks of qualifications will enable countries to ensure that there are more transparent transition arrangements between cycles. The Ministers said in Bergen that they would have in place by 2010 national frameworks that are compatible with the overarching three-cycle framework of qualifications for the EHEA. The Bergen communiqué also mentions the possibility that “intermediate qualifications” can be included “within national contexts”. This will take account of short programmes in the first and second cycle.

Fig 1c
Indicator 2: Access to the next cycle
Progress since 2005



Progress since 2005

The current indicator 2 was also more demanding than in 2005 – it considered access to both second and third cycle compared to just first-to-second cycle transition in 2005. In addition, in 2007 the criterion for the highest score required that a first cycle graduate had access to several second cycle programmes rather than “at least one” in 2005.

Fig 1c shows that there has been good progress access to the next cycle since 2005: even though the indicator was more demanding, the results are better in 2007.

Indicator 3: Implementation of national qualifications framework

Number of countries in each score category for Indicator 3.	7	6	11	23	1
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DEGREE SYSTEM	3. Implementation of national qualifications framework
Green (5)	A national QF in line with the overarching QF for EHEA is in place
Light green (4)	A proposal for a national QF in line with the overarching QF for EHEA has been discussed with all relevant stakeholders at the national level and a timetable for implementation has been agreed
Yellow (3)	A proposal for a national QF in line with the overarching QF for EHEA has been prepared
Orange (2)	The development process leading to definition of national QF in line with the overarching QF for EHEA has started, and it includes all the relevant national stakeholders
Red (1)	Work at establishing national QF in line with the overarching QF for EHEA has not started

This is a new indicator for 2007, and countries are at varying stages of progress towards implementing a national qualifications framework in line with the framework for the EHEA that was adopted by the Ministers in Bergen.

The Ministers in Bergen asked that countries should have started work on their national qualifications frameworks by 2007, and all but one have done so. A small number of countries have already developed and implemented their national frameworks; some others have prepared legislation and are ready to start implementation. Almost all countries have at least started the development process and have engaged all relevant stakeholders, usually by putting in place working groups or special commissions.

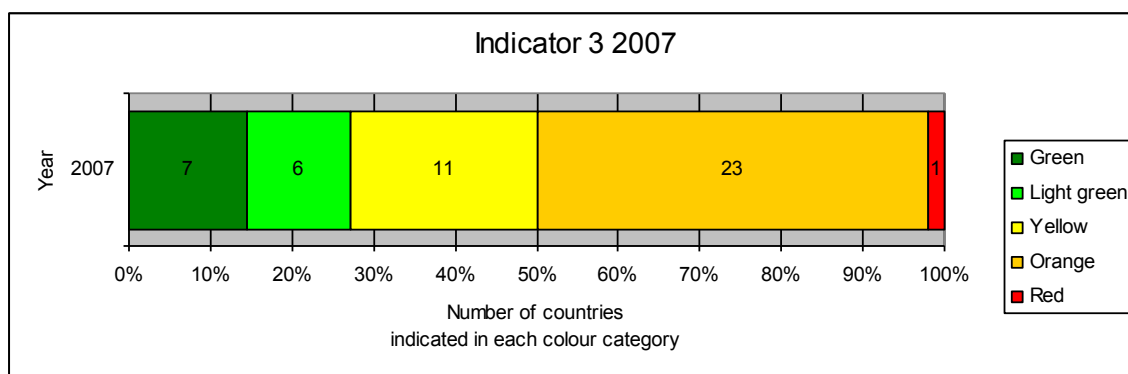
Most of the countries that are in the green category had started developing their national framework before 2005: some have taken 10-15 years to complete the development process and implement their framework fully. In view of this, there is a concern among some of the other countries that the goal of having national frameworks in place by 2010 might rush the national process. They recognise that while the principles of the framework can be introduced in legislation relatively quickly, it is likely to take some years before the framework is fully implemented.

While national qualification frameworks that are compatible with the overarching EHEA framework will also be compatible with the European Qualifications Framework for Lifelong Learning (EQF) proposed by the European Commission, it was noted by some countries that there is confusion at national and institutional level between the framework for the EHEA adopted in Bergen and the EQF.

It is clear that this is an indicator where a great effort needs to be made before 2010. There is still a lot of work to be done in many countries, and there is a need to consider what kinds of collegial support can be provided through the Bologna Process to help these countries to develop their national frameworks. This might include, for example, setting up working groups that will give countries the opportunity to learn from the experiences of others and to share good examples of practice. *(Refer to recommendations of QF working group)*

Developing national frameworks of qualifications will bring together a number of strands of the Bologna process, all of which are based on a learning outcomes approach: quality assurance; credit transfer and accumulation systems; recognition of prior learning; lifelong learning; flexible learning paths and the social dimension.

Fig 1d
Indicator 3: Implementation of national qualifications framework
Progress up to 2007



Stocktaking on Quality Assurance

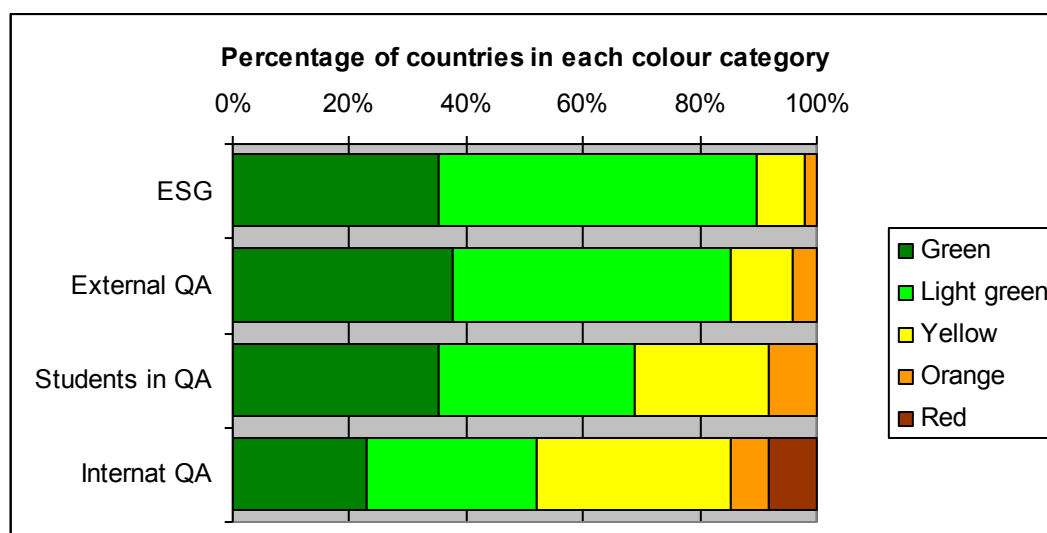
Table 2

Number of countries in each colour category for indicators 4-7

Quality assurance	Green	Light green	Yellow	Orange	Red
4. National implementation of <i>Standards and Guidelines for QA in the EHEA</i>	17	26	4	1	0
5. Stage of development of external quality assurance system	18	23	5	2	0
6. Level of student participation	17	16	11	4	0
7. Level of international participation	11	14	16	3	4

Figure 2

Quality assurance: percentage of countries in each category for indicators 4-7



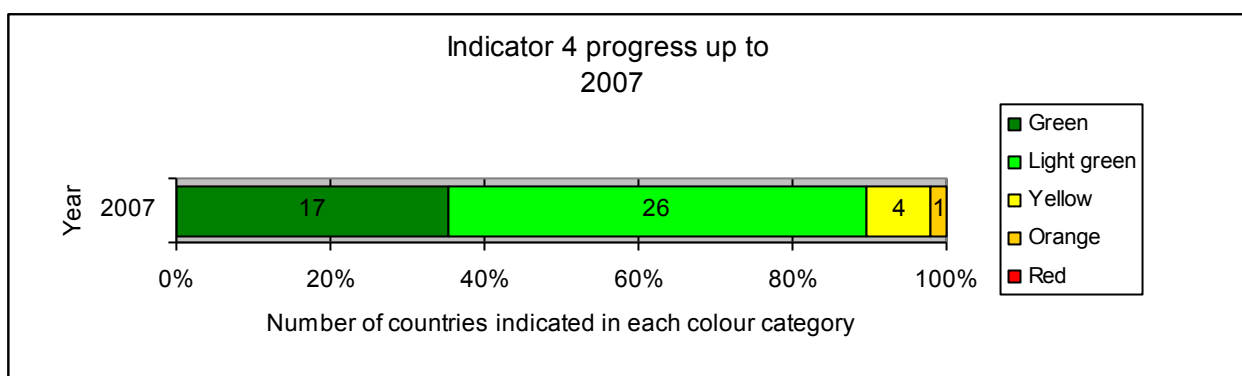
Indicator 4: National implementation of *Standards and Guidelines for Quality Assurance (QA) in the EHEA*

Number of countries in each score category for Indicator 4	17	26	4	1	0
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QUALITY ASSURANCE	4. National implementation of <i>Standards and Guidelines for QA in the EHEA</i>
Green (5)	A national QA system in line with the <i>Standards and Guidelines for QA in the EHEA</i> is fully operational
Light green (4)	The process of implementing a national QA system in line with the <i>Standards and Guidelines for QA in the EHEA</i> has started
Yellow (3)	There are plans and established deadlines for amending the national QA system in line with the <i>Standards and Guidelines for QA in the EHEA</i>
Orange (2)	National quality assurance system is under review in line with the <i>Standards and Guidelines for QA in the EHEA</i>
Red (1)	No arrangements to implement the <i>Standards and Guidelines for QA in the EHEA</i>

Fig 2a

**Indicator 4: National implementation of *Standards and Guidelines for QA in the EHEA*
Progress up to 2007**



This is a new indicator and its purpose was to check whether countries have started to implement the *Standards and Guidelines for Quality Assurance in the EHEA* (often referred to as *ESG*). The criterion for *green* was that a national QA

system in line with the Standards and Guidelines for QA in the EHEA is fully operational. However, countries could achieve a score of *light green* without necessarily having completed the steps indicated in *yellow* and *orange*.

In effect, the indicator shows that in close to one-third of countries a national quality assurance system in line with the *Standards and Guidelines for Quality Assurance in the EHEA* is already fully operational (green), while all others (*light green, yellow* and *orange*) have started work on aligning their quality assurance system with the *Standards and Guidelines*.

However, there is widespread recognition that in many countries there is still a lot to be done and there are many gaps to be filled. While the formal structures for quality assurance are in place, a finding that is supported by the *EUA Trends V* study, there is a need to provide more support for internal quality assurance/quality improvement processes that will “embed” a genuine quality culture in higher education institutions. For 2009, the stocktaking process may need to ask for more detailed information about the operation of internal quality assurance processes.

Indicator 5: Stage of development of external quality assurance system

Number of countries in each score category for Indicator 5.	18	23	5	2	0
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QUALITY ASSURANCE	5. Stage of development of external quality assurance system
Green (5)	<p>A fully functioning quality assurance system is in operation at national level and applies to all HE</p> <p>Evaluation of programmes or institutions includes three elements:</p> <ul style="list-style-type: none"> - internal assessment, - external review, - publication of results. <p>In addition, procedures have been established for peer review of national QA agency(ies) according to the <i>Standards and Guidelines for QA in the EHEA</i></p>
Light green (4)	<p>A Quality Assurance system is in operation at national level and applies to all HE</p> <p>The quality assurance system covers three elements:</p> <ul style="list-style-type: none"> -internal assessment - external review - publication of results, but no procedures are in place for peer review of national QA agency(ies) according to the <i>Standards and Guidelines for QA in the EHEA</i>
Yellow (3)	<p>A Quality Assurance system is in operation at national level, but it does not apply to all HE. The quality assurance system covers at least one of the three elements:</p> <ul style="list-style-type: none"> - internal assessment - external review - publication of results
Orange (2)	<p>Legislation or regulations on quality assurance of programmes or institutions, including at least the first three elements, have been prepared but are not implemented yet</p> <p>OR</p> <p>implementation of legislation or regulations has begun on a very limited scale</p>
Red (1)	<p>No legislation or regulations on evaluation of programmes or institutions with at least the first three elements</p> <p>OR</p> <p>legislation in the process of preparation</p>

The criteria for green were that

- A fully functioning QA system is in operation and applies to all higher education
- Evaluation of programmes or institutions includes three elements: internal assessment, external review and publication of results

- Procedures have been established for peer review of QA agency.

Even though this indicator was more demanding than in 2005, very good progress is reported. The biggest problem for many countries is that they have yet to establish procedures for external review of the QA agency.

Some groups of countries have begun to cooperate with each other to support implementation of their external quality assurance systems, for example by having joint accreditation processes. It might be useful for ENQA to provide information that would help countries to collaborate further, and for them to explain how countries have organised their external reviews.

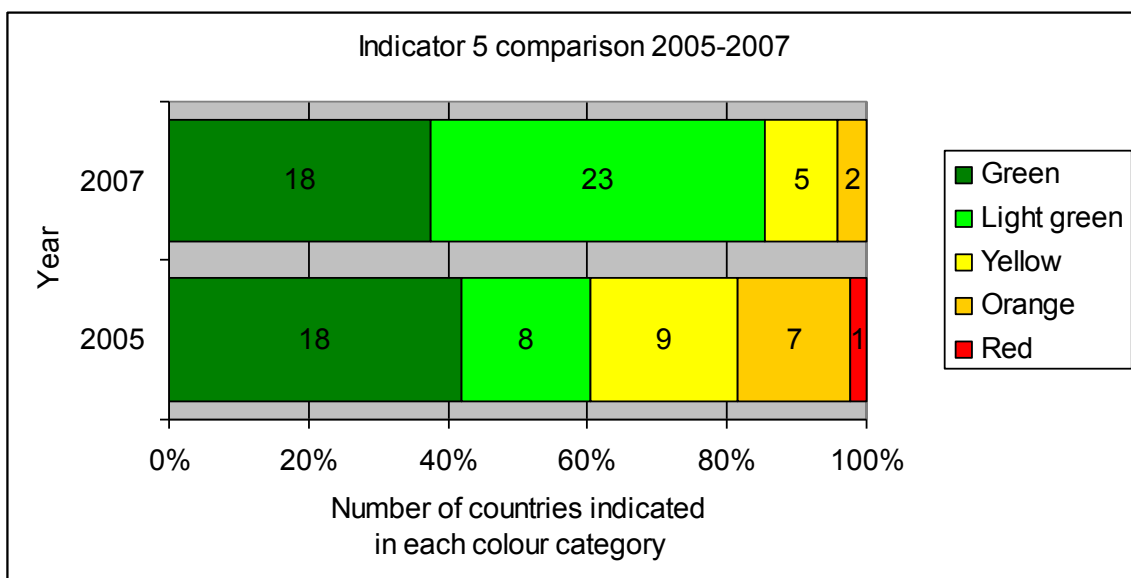
Progress since 2005

This indicator has changed since 2005, when the criteria for green did not include peer review of QA agencies. In spite of this, however, as fig 2b shows there has been significant progress in establishing systems for external evaluation, with many more countries now in the combined green/light green categories than in 2005.

However, although many countries mention plans to undertake peer review of QA agencies in the next few years, not all countries have established procedures for peer review, so there is no increase in the number of countries in the *green* category in 2007.

Fig 2b

Indicator 5: Stage of development of external quality assurance system Progress since 2005



Indicator 6: Level of student participation in quality assurance

Number of countries in each score category for Indicator 6.	17	16	11	4	0
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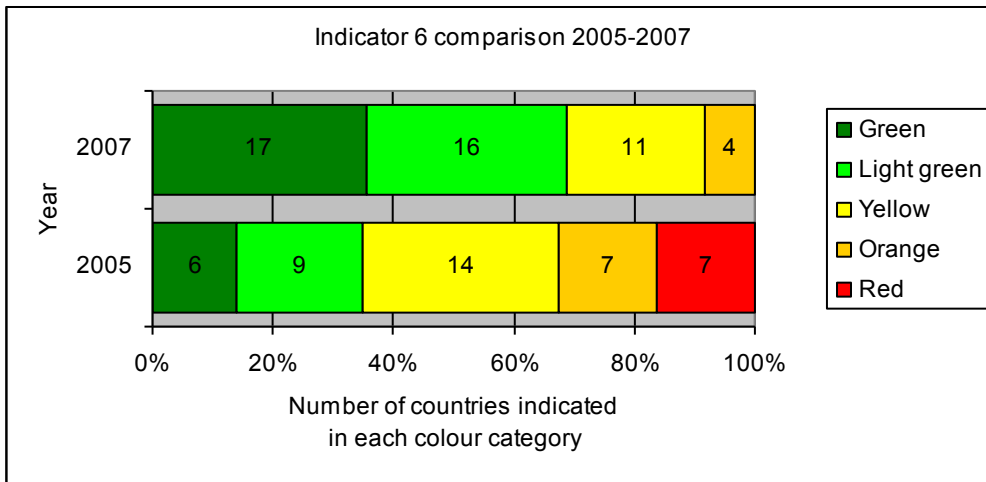
QUALITY ASSURANCE	6. Level of student participation
Green (5)	Students participate at four levels: <ul style="list-style-type: none"> - in the governance of national bodies for QA - in external review of Higher education institutions and/or programmes: either in expert teams, as observers in expert teams or at decision making stage, - in consultation during external reviews - in internal evaluations
Light green (4)	Students participate at three of the four above levels
Yellow (3)	Students participate at two of the four above levels
Orange (2)	Students participate at one of the four above levels
Red (1)	There is no student involvement OR No clarity about structures and arrangements for student participation

Every country has achieved some level of student participation in quality assurance, and in more than two-thirds of countries students participate in at least three of the four levels. This represents a significant increase since 2005, a finding which is backed up by data from *EUA Trends V* and from the ESIB survey.

Progress since 2005

This indicator is directly comparable with 2005 as the criteria have remained the same. It is also the indicator where the greatest amount of progress has been made, as shown in fig 2c.

Fig 2c
Indicator 6: Level of student participation in QA
Progress since 2005



Indicator 7: Level of international participation in quality assurance

Number of countries in each score category for Indicator 7.	11	14	16	3	4
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QUALITY ASSURANCE	7. Level of international participation
Green (5)	International participation takes place at four levels: - in the governance of national bodies for QA - in the external evaluation of national QA agencies, - as members or observers within teams for external review of Higher education institutions and/or programmes - membership of ENQA or other international networks
Light green (4)	International participation takes place at three of the four above levels
Yellow (3)	International participation takes place at two of the four above levels
Orange (2)	International participation takes place at one of the four above levels
Red (1)	There is no international involvement OR No clarity about structures and arrangements for international participation

The stocktaking results show that there is still some way to go on international participation in quality assurance, with less than a quarter of countries in the *green* category. This reflects the fact that external review of QA agencies is still at an early stage of development in most countries, so there cannot be international participation in this area yet.

There are some barriers to including foreign experts as members of external review teams. Language was mentioned by a number of countries as an obstacle; this is particularly difficult for smaller countries with less widely-spoken languages. Some countries have solved the problem by using English or another common language throughout the external evaluation process, which greatly adds to the cost and inconvenience for the institutions concerned. International

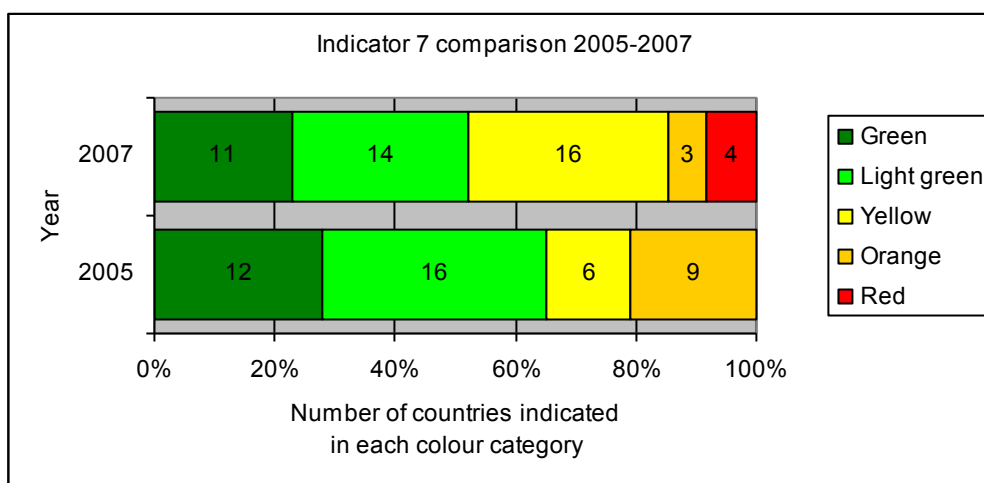
participation in the governance of QA agencies is also mentioned as a problem for some countries because of legislative restrictions.

The challenge for the future is to increase international participation as a way of guaranteeing the international acceptance, openness and transparency of QA processes in all countries. This might be achieved by focussing on developing an international dimension to the external review of QA agencies, and by building on the initiatives of ENQA, EUA and the Council of Europe to promote international co-operation.

Progress since 2005

This indicator was more challenging in 2007 than in 2005 with the addition of *evaluation of QA agencies* to the criteria for *green*. As a consequence, there are fewer countries in the *green/light green* categories and more countries in the *red* category in 2007 than there were in 2005, as shown in fig 2d.

Fig 2d
Indicator 7: Level of international participation in QA
Progress since 2005



Stocktaking on Recognition of Degrees and Study Periods

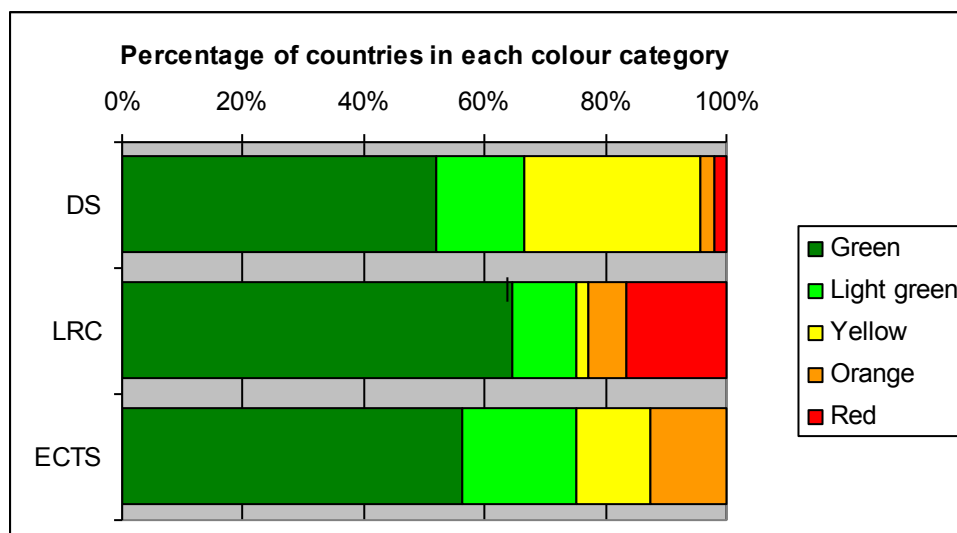
Table 3

Number of countries in each colour category for indicators 8-10

Recognition of degrees and study periods	Green	Light green	Yellow	Orange	Red
8. Stage of implementation of diploma supplement	25	7	14	1	1
9. National implementation of the principles of the Lisbon Recognition Convention	31	5	1	3	8
10. Stage of implementation of ECTS	27	9	6	6	0

Figure 3

Recognition of degrees and study periods: percentage of countries in each category for indicators 8-10



Indicator 8: Stage of implementation of diploma supplement

Number of countries in each score category for Indicator 8.	25	7	14	1	1
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RECOGNITION	8. Stage of implementation of diploma supplement
Green (5)	<p>Every student graduating in 2007 will receive a Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language</p> <ul style="list-style-type: none"> - automatically - free of charge
Light green (4)	<p>Every student graduating in 2007 will receive the Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language</p> <ul style="list-style-type: none"> - on request - free of charge
Yellow (3)	<p>A DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language will be issued to some students OR in some programmes in 2007</p> <ul style="list-style-type: none"> - on request - free of charge
Orange (2)	<p>A DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language will be issued to some students OR in some programmes in 2007</p> <ul style="list-style-type: none"> - on request - not free of charge
Red (1)	<p>Systematic issuing of DS in the EU/CoE/UNESCO Diploma Supplement format and in a widely spoken European language has not started</p>

The use of the diploma supplement is increasing steadily, with more than half the countries having fully completed implementation. In a number of countries where it is not yet issued automatically, the diploma supplement is issued on request. However, in one-third of countries the diploma supplement is not yet available automatically and free of charge to all students.

A number of different approaches to issuing the diploma supplement can be identified from national reports:

- Some countries automatically issue the diploma supplement in one language, and will issue a translation on request
- Some countries issue the diploma supplement to doctoral graduates, others do not
- Some seem to issue the diploma supplement to bachelors on request only
- Some issue the diploma supplement to all graduates in the two-cycle system (but they may have a large number of study programmes not yet transformed to two cycles).

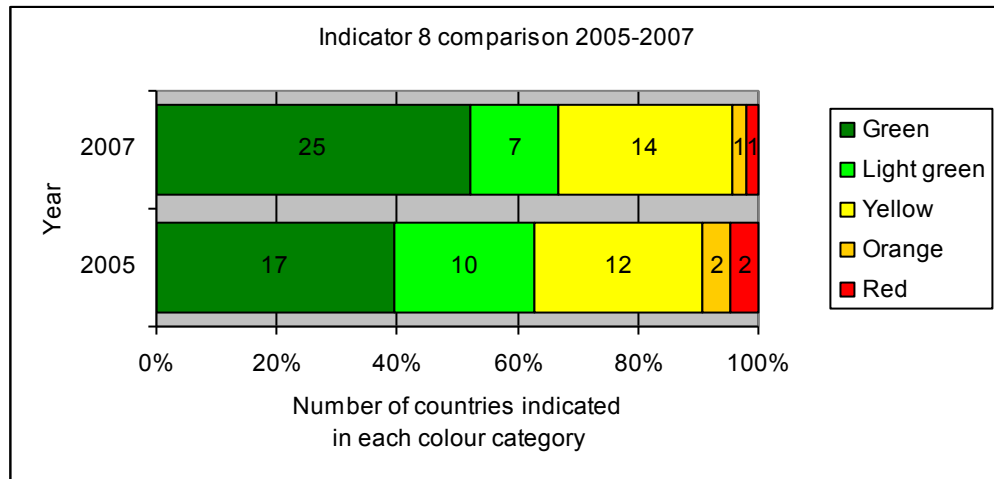
The 2007 stocktaking has raised some important issues about the diploma supplement, which might be addressed in the next two years. Firstly, there is a need to clarify that the diploma supplement applies to all three cycles of the degree system. Secondly, there is a need to look at how well the actual diploma supplements in different countries correspond to the Unesco/Council of Europe/EU joint diploma supplement format adopted in 2001. It was noted that while the format of the diploma supplement is available on the official websites of a number of international organisations, the instructions for filling the diploma supplements that were elaborated together with the format itself are not so easily accessible. The ENIC/NARIC network might be involved in gathering and analysing examples of diploma supplements issued in all countries.

Progress since 2005

The criteria for green and light green were the same in 2007 as they were in 2005, while the criteria for yellow and orange were more demanding in 2007. In 2005 it was sufficient to have plans to introduce the diploma supplement or to be carrying out pilot testing; however this is not the case in 2007.

Even though the 2007 criteria were more demanding, fig 3a shows that there has been good progress in implementing the diploma supplement since 2005.

Fig 3a
Indicator 8: Stage of implementation of diploma supplement
Progress since 2005



Indicator 9: National implementation of the principles of the Lisbon Recognition Convention

Number of countries in each score category for Indicator 9.	31	5	1	3	8
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RECOGNITION	9. National Implementation of the principles of the Lisbon Recognition Convention ⁷
Green (5)	<p>The Convention has been ratified; appropriate legislation complies with the legal framework of the Lisbon Convention; the later Supplementary Documents have been adopted in appropriate legislation and applied in practice, so that the five main principles are fulfilled:</p> <ul style="list-style-type: none"> - applicants have a right to fair assessment, - there is recognition if no substantial differences can be proven, - in cases of negative decisions the competent recognition authority demonstrates the existence of (a) substantial difference(s) - the country ensures that information on its institutions and their programmes is provided - an ENIC has been established.
Light green (4)	<p>The Convention has been ratified; appropriate legislation complies with the legal framework of the Lisbon Convention; the later Supplementary Documents have been adopted in appropriate legislation, but some amendments are needed to apply in practice the principles of the Supplementary Documents.</p>
Yellow (3)	<p>The Convention has been ratified and appropriate legislation complies with three or four of the five abovementioned principles of the Lisbon Recognition Convention.</p>
Orange (2)	<p>The Convention has been ratified and appropriate legislation complies with one or two of the five abovementioned principles of the Lisbon Recognition Convention.</p>
Red (1)	<p>The Convention has been ratified but appropriate legislation has NOT been reviewed against the legal framework of the Lisbon Convention or the Supplementary Documents.</p> <p style="text-align: center;">OR</p> <p>Convention has not been ratified</p>

⁷ More recognition issues are discussed in the section on national action plans for improving recognition below

The Lisbon Recognition Convention (LRC) is the only legally-binding instrument that applies to the Bologna process. In the Bergen communiqué, Ministers stressed that those countries that had not already ratified the Convention in 2005 should do so without delay. The criterion was therefore more demanding in 2007 than in 2005, with an even greater emphasis on ratification of the convention and also on applying in practice the five main principles of the Lisbon Recognition Convention. The ratification process has taken longer than expected in a number of countries, with the result that only one country has ratified the Convention in the past two years.

Many countries have recently amended their legislation and do not have legal obstacles that prevent them from applying the principles of the Convention in practice. Some countries also extend the application of Convention principles to applicants from countries that are not parties to the LRC. Several countries have established databases of recognition decisions with a view to simplifying procedures in future. Countries have produced national action plans for improving recognition, which are examined later in this report.

However, some of the reality is hidden within the apparently very good results. The terminology used for national recognition procedures is often confused and this may conceal huge differences between countries. Several countries say that their higher education institutions need more information on Convention principles and training on how to apply them in practice. While it appears from national reports and action plans on recognition that legislation is largely compliant with the *letter* of the LRC, there are various approaches to recognition at institutional level that may not fully embody the *spirit* of the Convention principles. It should also be noted that some countries are in the red category because they have not ratified the Convention, but they have already started to implement the Convention principles in legislation and practice.

In the period before 2010, it would be worthwhile to examine more closely the conduct of recognition procedures at national level and in institutions, and how recognition practices can be made truly coherent across the EHEA. It would also be useful to check how well countries have transposed Convention principles into national laws, while recognising the autonomy of higher education institutions. Another aspect that is worthy of examination is how recognition and quality assurance are linked to each other: if fair recognition of qualifications is seen as

an indicator of quality, implementation of the Convention could be checked as part of the quality assurance process.

Progress since 2005

This indicator is not directly comparable with the 2005 criteria, because in 2005 it was possible for a country to score yellow without having ratified the LRC. In 2007, a country that has not yet ratified the convention can score only red, regardless of whether or not the principles have been applied in legislation. For this reason, the number of countries in the red category has actually increased in 2007.

Indicator 10: Stage of implementation of ECTS

Number of countries in each score category for Indicator 10.	27	9	6	6	0
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RECOGNITION	10. Stage of implementation of ECTS
Green (5)	In 2007 ECTS credits are allocated in all first and second cycle programmes, enabling credit transfer and accumulation.
Light green (4)	In 2007 credits are allocated in at least 75 per cent of the first and second cycle Higher Education programmes, using ECTS OR a fully compatible credit system enabling credit transfer and accumulation
Yellow (3)	In 2007 credits are allocated in 50-74 per cent of Higher Education programmes, using ECTS or a fully compatible national credit system enabling credit transfer and accumulation
Orange (2)	In 2007: ECTS credits are allocated in less than 50 per cent of Higher Education programmes OR A national credit system is used which is not fully compatible with ECTS OR ECTS is used in all programmes but only for credit transfer
Red (1)	No credit system is in place yet

In more than half the countries ECTS is already used for credit transfer and accumulation, while another quarter of the countries use ECTS in at least 75 per cent of programmes, or use an ECTS compatible national credit system across the board.

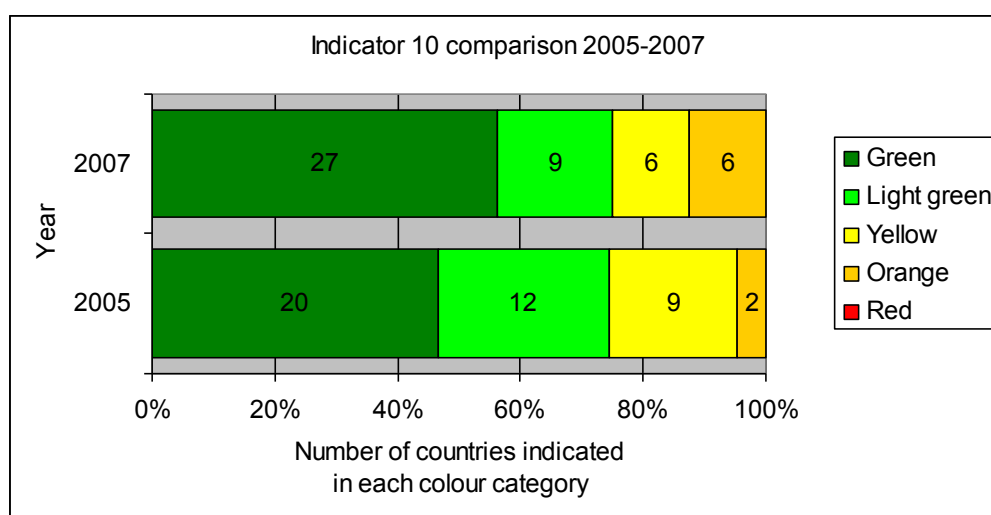
The results demonstrate that ECTS is developing as a system of credit transfer and accumulation. However, national reports also show that while many countries have begun to use credits both for transfer and for accumulation, a much smaller number link credits with learning outcomes.

For the future, there needs to be more emphasis on the interdependence of learning outcomes, qualifications frameworks, and credit transfer and accumulation. This will be more fully in line with the key features indicated in the ECTS: "Credits in ECTS can only be obtained after successful completion of the work required and appropriate assessment of the learning outcomes achieved. Learning outcomes are sets of competences, expressing what the student will know, understand or be able to do after completion of a process of learning, long or short."⁸

Progress since 2005

The criteria for this indicator were more specific and demanding in 2007 than in 2005. The 2005 criterion for green was that ECTS credits were allocated in *most* programmes enabling transfer and accumulation, while light green could be achieved if ECTS was used in a *limited number* of programmes. As a consequence of this change in the criteria, the increase in the number of countries gaining high scores has been relatively small, as shown in fig 3b.

Fig 3b
Indicator 10: Stage of implementation of ECTS
Progress since 2005



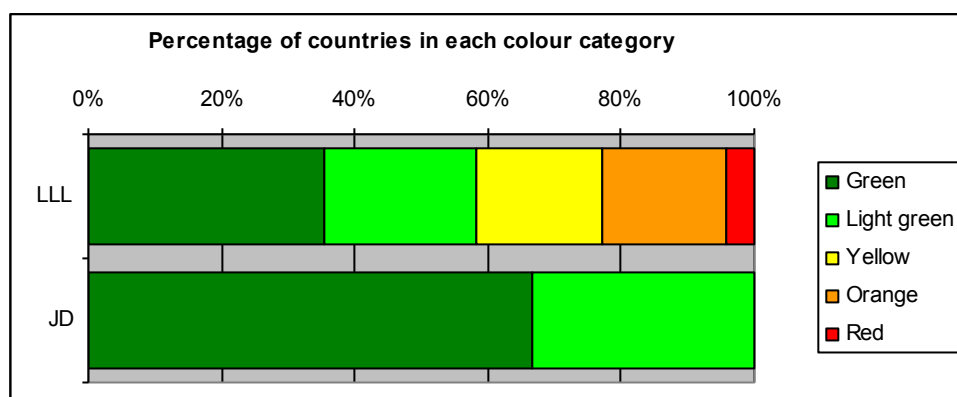
⁸ European Credit Transfer and Accumulation System (ECTS). Key Features, see http://ec.europa.eu/education/programmes/socrates/ects/doc/ectskey_en.pdf

Stocktaking on Recognition of Prior Learning and Joint Degrees

Table 4
Number of countries in each colour category for indicators 11-12

Recognition of prior learning and joint degrees	Green	Light green	Yellow	Orange	Red
11. Recognition of prior learning	17	11	9	9	2
12. Establishment and recognition of joint degrees	32	16	0	0	0

Figure 4
Recognition of prior learning and joint degrees:
percentage of countries in each colour category for indicators 11-12



Indicator 11: Recognition of prior learning

Number of countries in each score category for Indicator 11.	17	11	9	9	2
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LIFELONG LEARNING	11. Recognition of prior learning
Green (5)	There are procedures/national guidelines or policy for assessment of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements
Light green (4)	There are procedures/national guidelines or policy for assessment of prior learning but they are used for only one of the abovementioned purposes
Yellow (3)	Procedures/national guidelines or policy for establishing assessment of prior learning have been agreed or adopted and are awaiting implementation OR There are no specific procedures/national guidelines or policy for assessment of prior learning, but procedures for recognition of prior learning are demonstrably in operation at some higher education institutions or study programmes
Orange (2)	Implementation of recognition of prior learning is in a pilot phase at some higher education institutions OR Work at drawing up procedures/national guidelines or policy for recognition of prior learning has started
Red (1)	No procedures for recognition of prior learning are in place EITHER at the national OR at the institutional/programme level.

This was an entirely new indicator in 2007. Just over one-third of countries have achieved the highest score, which suggests that procedures for the recognition of prior learning are at an early stage of development in the majority of countries.

There was no common understanding of *recognition of prior learning*; in some cases it was taken to mean only recognising qualifications achieved in other institutions. There were very few concrete examples of practice in national reports.

This is an area where there is a need to raise awareness of the issues and provide support for future development. It is also important to link with the development of national frameworks of qualifications and systems of credit transfer and accumulation. At this stage of progress, it might be too early to apply the indicator approach to stocktaking in this area. There is further discussion of this point in the concluding part of the report.

Indicator 12: Establishment and recognition of joint degrees

Number of countries in each score category for Indicator 12.	32	15	0	0	0
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JOINT DEGREES	12. Establishment and recognition of joint degrees
Green (5)	Legislation allows and encourages establishing joint programmes and joint degrees. A number of Higher education institutions have already established joint programmes and are awarding nationally recognised degrees jointly with Higher education institutions of other countries at all levels.
Light green (4)	There are no legal or other obstacles to establishing joint programmes and the awarding and recognition of joint degrees or at least double or multiple degrees, but legislation does not specifically refer to joint degrees. OR Legislation for establishing joint programmes, awarding and recognition of joint degrees has been prepared and agreed, but not yet implemented.
Yellow (3)	There are no legal or other obstacles to establishing joint programmes with Higher education institutions of other countries, but a degree is awarded in only one country after completion of the joint programme.
Orange (2)	There are obstacles to establishing joint programmes, awarding or recognizing joint degrees, but legislation or regulations are being drafted.
Red (1)	There are no possibilities to establish joint programmes, award and recognize joint degrees under current legislation and there are no plans to change this situation

This was a new indicator for 2007. Almost all countries state that legislation either explicitly encourages or at least does not prevent Higher education institutions awarding joint degrees with Higher education institutions from other countries.

Quite a number of countries have reviewed and changed their legislation recently in order to allow establishment and recognition of joint degrees. This may be regarded as a good example of how the Bologna process can have an effect on national policy and practice.

In the stocktaking, countries were put in the *green* category when they had begun to award joint degrees, even if there was no explicit reference to legislation: in some countries legislation is not needed so the existence of joint degrees was regarded as adequate evidence of having achieved this criterion in accordance with the Bergen communiqué. It should be noted that the Eurydice study used a different approach, namely checking whether awarding and recognition was explicitly mentioned in national legislation, and therefore the results are somewhat different.

Stocktaking on areas not included in the scorecard

This section of the report comments on the stocktaking themes that were identified in the Bergen communiqué but not included in the scorecard: the progress on implementing the third cycle; measures to increase the employability of graduates; flexible learning paths in higher education; the links between higher education and research; the benefits of international co-operation and partnership in the Bologna Process. It also outlines the main issues arising from the national action plans on recognition. Finally, it explores some of the main challenges for the future, as identified in the national reports.

Progress on implementing the third cycle

Growth of structured doctoral programmes in the third cycle

The national reports and the comparison of data from **Trends III and Trends IV indicate** that there is growth in the number of structured doctoral programmes in the third cycle, with new legislation adopted in several countries. Several countries say that while they have focused up to now on implementing the first and second cycles, implementing doctoral studies has become a central issue recently.

Normal length of full-time doctoral studies

Most countries have indicated 3 to 4 years full-time study, but the average time for completion of doctoral studies is often longer than the norm, sometimes because study is combined with other duties in the institution. In a large number of countries, structured doctoral programmes include taught courses, which vary in duration from half a year (30 ECTS) to 1.5 years.

Supervisory and assessment procedures

Most countries have supervisory activities for doctoral students, which in many cases are determined by the Higher education institutions themselves. The most common assessment procedure is periodic attestation or reporting, which may take place once a year, twice a year or once every two years. Some countries indicate that doctoral candidates have to sit exams.

Qualifications framework

Many countries have already included, or propose to include, doctoral studies in their qualifications framework.

Interdisciplinary training and the development of transferable skills

Some countries include interdisciplinary training/ development of transferable skills in doctoral studies, mainly where doctoral schools have been established, while others plan to do so in the future.

Use of credit transfer and accumulation in doctoral programmes

There is a range of approaches to the use of credit transfer and accumulation in doctoral programmes. Some countries use credit points across all doctoral studies, some use them for taught courses only, and others do not use them in any doctoral studies programmes.

Increasing the employability of graduates with bachelor qualifications

Question 11 of the national report template asked "What measures are being taken to increase the employability of graduates with bachelor qualifications?" The quality of responses to this question was very varied. The answers demonstrated that employability of graduates is seen by higher education institutions as one of the most important focal points for higher education. Since bachelors and masters are new degrees in many countries, it is not yet clear what the level of employability of graduates will be, so the responses were to some extent speculative.

Some countries estimated the current level of graduate employment based on general national employment data only. A number of countries indicated good employment prospects for graduates. However it is important to note that, as some countries suggested, variations in employment opportunities for graduates might sometimes be influenced by changes in the labour market and the national economy and might therefore not reflect institutions' efforts to increase employability. None of the countries expects sharp changes in graduate employment in the near future.

The national reports show that the percentages of first cycle graduates progressing to the second cycle and those entering the labour market vary considerably from country to country, and also between different types of higher education. In some countries, the highest rates of first cycle graduates entering the labour market are those who hold professionally-oriented bachelor degrees. It

also seems that considerable numbers of bachelor degree holders find employment in countries that have a long tradition of a two-cycle system while in some other countries that have established tradition of 'long' higher education programmes the holders of the newly introduced bachelor degrees may experience employment problems. This finding is confirmed by the *Trends V* study, which raises the issue of the acceptability of bachelor degrees to employers.

The proportion of first cycle graduates following studies in the second cycle ranges across the whole spectrum – from 80-100 per cent for university graduates in some countries to as little as 5-10 per cent for professional bachelors in others. This may be linked to the employability of bachelor graduates in the country concerned.

Countries are developing different measures to increase the labour-market relevance of qualifications. Some are reforming their existing bachelor programmes with a view to enhancing the employability of graduates, while others who are currently introducing the two-cycle system are concentrating their efforts on the employability of first cycle graduates. Some countries have adopted accreditation criteria that include meeting professional requirements or skills and competencies, while others link higher education funding to graduate employment. Some of the practical measures include involving employers in formulating professional standards; introducing practical training in university first cycle programmes; introducing career consultancy at higher education institutions, or creating support systems for jobseekers.

In summary, the picture that emerges from the 2007 stocktaking about the employability of first cycle graduates is not very clear. There may be merit in sharing good practice in this area. The graduate employability issue is one of the key issues of the Bologna process. Therefore, if it is to be the focus of more detailed stocktaking, there is a need for all countries to gather systematic data on graduate employment.

Creating opportunities for flexible learning paths in higher education

Countries were asked to describe legislative and other measures that they have taken to create opportunities for flexible learning paths in higher education. It is clear from the national reports that countries have different ways of interpreting “recognition of prior learning” (see analysis of indicator 11 above) and “flexible learning paths”. In their responses, countries mentioned flexible entry requirements, delivery methods and structures of programmes.

Some countries admit people to higher education without the typical entry qualifications, if the higher education institutions consider them qualified. There may be special conditions that apply – for example a certain minimum age limit, belonging to a socially disadvantaged group, or passing a special entrance examination. Some countries admit holders of secondary vocational qualifications who would not formally qualify for admission; in other countries a combination of preparatory and higher education studies has been introduced.

Many countries have a long tradition of organising alternative ways of learning for students who, for various reasons, cannot study in the typical full-time study programmes. The arrangements mainly concern the timing of study programmes: for example providing opportunities to study in the evenings, at weekends, or by correspondence. These arrangements seem to exist, in one way or another, nearly everywhere – either in parallel with full-time programmes within the same institutions or in higher education institutions specialising in providing these alternative learning paths.

A number of countries are focussing on introducing e-learning opportunities, either alone or in combination with traditional studies. Some Net universities seem to be emerging, while one country has organised a virtual open university and an open polytechnic that are fully accessible to learners with different educational backgrounds.

In some countries, new initiatives are emerging to introduce truly flexible learning paths combining different kinds of learning. These developments are often made possible by the implementation of a national framework of qualifications, based

on awarding credit for learning outcomes achieved in a range of formal, informal and non-formal learning contexts.

Developments in this area are still at an early stage, and results may not be easily quantifiable for some time, but the development process should start with setting clear policy goals. There is a need to raise awareness of the role higher education can play in advancing social and economic cohesion, especially by providing increased access for people who have traditionally been under-represented at this level.

Higher education and research

In their national reports, countries were asked to describe the relationship between higher education and research, and to indicate the proportion of research carried out in higher education institutions. In addition, they were asked to say whether they are taking any steps to improve the synergy between higher education and other research sectors.

The responses of most countries were quite vague: they generally stated that they had policies for strengthening the relationship between higher education and research, without specifying the measures they were taking. Where specified, these were usually measures to strengthen research in itself, by allocating extra funding or promoting new research programmes.

In many countries higher education is seen as an important component of the national approach to research and development (R&D) and innovation. This depends on investment to develop institutional research capacity; to generate new knowledge, and to implement leading edge research technologies. It also requires concerted effort to spread knowledge about the results from scholarly work and scientific research so that it is seen as a benefit to the economy.

In the minority of countries that supplied relevant data, the percentage of research carried out at higher education institutions ranged from 12 per cent to 80 per cent. Many countries said that most research is carried out or led by universities. Some countries are encouraging higher education institutions to set up their own research institutes, while research institutions outnumber universities in a small number of countries.

Among the steps that countries mentioned they were taking to improve the synergy between higher education and other research sectors were:

- Adopting national strategy and policy measures to strengthen research co-operation between higher education institutions and research institutes, as well as with business and industry
- Encouraging mobility between the academic and industrial worlds
- Providing incentives to attract the best researchers
- Promoting cooperation between different sectors of HE in research
- Strengthening technology transfer
- Creating a technology park
- Merging research institutes into universities
- Establishing spin-off firms, forming venture capital funds, establishment and promotion of regional HE and research centres
- Changing higher education institutional structures to integrate research institutes
- Establishing joint centres of research, higher education and business
- Increasing focus on commercialisation and communication of research results
- Subsidising public-private research consortia.

From the wide variation in responses in the 2007 national reports, it is difficult to establish a clear picture of the relationship between higher education and research and whether that is changing as a result of the Bologna Process. If there is to be further development in this area there is a need to formulate clear policy goals and to measure progress against these goals.

Doctoral candidates and graduates taking up research careers

Question 24 of the national report template asked “What percentage of doctoral candidates take up research careers; are any measures being taken to increase the number of doctoral candidates taking up research careers?”

A number of countries did not state the percentage of doctoral graduates that continue in research careers. The available data or estimates indicate that the percentage of doctoral graduates taking up research careers varies greatly: from more than 90 per cent in some countries to “very few” in a small number of cases.

The main measures to attract doctoral graduates to research careers include:

- creating or supporting post-doctoral positions
- providing specific grants to post-doctoral researchers
- raising salaries
- increasing funding for research in general
- providing information on career opportunities in research
- measures related to taxation
- promoting mobility of doctoral students and internationalisation of doctoral studies
- finding research posts for young researchers in the private sector.

In some countries, the main concern is that there are still small numbers of students enrolled in doctoral studies programmes, so the first step is to increase these numbers.

Benefits of international co-operation and partnership within the Bologna Process

It is clear for the 2007 stocktaking that international co-operation within the Bologna Process has contributed to building capacity at both institutional and governmental levels and this has led to significant progress across all participating countries. While the initiative for the Bologna Process came from governments, it is becoming increasingly evident that the process is more successful when it is built on effective partnerships between government, higher education institutions, (including staff and students), business and social partners.

In the national reports for the 2007 stocktaking, countries were asked to describe arrangements for involving students and staff trade union/representative bodies in the governance of higher education institutions. The responses suggest that there is an increasingly high level engagement of higher education institutions' staff and students as partners in the implementation of the Bologna Process. At institutional level, most countries have formal arrangements for involving students and staff representative bodies in the governance of higher education institutions. The usual approach is to set a compulsory ratio or a certain number

of student and staff representatives. Representation of different staff groups is the norm. Staff trade unions however are more likely to be involved in specific commissions dealing with issues such as equal rights or labour legislation rather than as representatives as in higher education governing bodies.

Countries were also asked to describe how they ensured the co-operation of business and social partners with higher education. Countries reported that they involve business and social partners in higher education in a number of ways, including

- coordinating the implementation of the Bologna process
- drafting legislation or policy papers
- elaborating qualifications frameworks
- membership of governance bodies for higher education institutions or at national level
- membership of committees for drafting HE legislation, improving research and development, employability of graduates, setting graduation requirements/standards
- supporting practical placements for students and graduates.

Some countries are in the process of drafting new laws that will widen business and employer involvement.

It appears from the 2007 stocktaking that the Bologna Process is promoting increased involvement of students and staff in the governance of higher education institutions and better cooperation of business and social partners with higher education. Such developments should, in the long run, facilitate reaching the Bologna goals such as increasing employability of graduates, achieving more flexibility in higher education, establishing a quality enhancement culture, and outcomes-based curricula that lead to relevant qualifications.

Main issues arising from national action plans on recognition

The template for national action plans for recognition included a number of questions about recognition issues. There were questions about how the principles of the Lisbon Recognition Convention were embedded into national legislation and about how recognition practices are applied at state and institutional level. This included ratification of the Convention and the practical implementation of its principles at national level (see the analysis of results for

scorecard indicator 9 earlier in this report). The plans also addressed the mechanisms used at national level to ensure implementation of the Convention principles at institutional level.

The need to achieve a balance between respecting institutional autonomy and implementing an international agreement gave rise to a wide spectrum of issues and solutions. Some countries said that they had difficulties ensuring implementation of the Convention principles by higher education institutions because of institutional autonomy. On the other end of the spectrum, in some countries recognition decisions are made at the national level and higher education institutions do not have any role in recognition.

A solution used by some countries was to transpose Convention principles into national legislation: autonomous higher education institutions still have to observe the laws. Another solution was to include implementation of the Lisbon Recognition Convention in the areas examined as part of the quality assessment of higher education institutions.

National action plans clearly demonstrate that not only are the procedures for assessment of foreign qualifications very different in different countries, but even the terminology used in different countries is diverse and often confusing. It might be helpful if national action plans on recognition were further analysed by the ENIC/NARIC networks with a view to achieving coherence in the treatment of foreign degrees and study periods across the EHEA.

The national action plans for recognition also contain a number of examples of good practice that might be further studied and disseminated including:

- finding nationally acceptable solutions for ensuring that higher education institutions follow the principles of the Lisbon Recognition Convention in their recognition practices
- ensuring that recognition of foreign qualifications or study periods is based on identifying and comparing learning outcomes rather than programme details
- making the assessment of prior and experiential learning an integral part of the assessment of qualifications
- ensuring that a qualification is assessed even in those cases where it is difficult to provide full documentary support

- working towards using national qualifications frameworks and the overarching EHEA framework as a basis for comparing qualifications
- granting partial recognition rather than denying recognition even where substantial differences are indicated.

Future challenges

In their national reports, countries were asked to indicate the main challenges that they saw ahead at national level. As table 5 shows, quality assurance and accreditation-related issues were the most frequently mentioned challenges, followed by mobility-related ones, with student mobility being mentioned more often than staff mobility. Many countries said they were concerned about employability of graduates and involvement of stakeholders in higher education. A significant number of countries have also identified challenges related to research and/or doctoral studies; establishing national qualifications frameworks and outcomes-based qualifications, and funding - from securing sufficient funding to better administration of funds.

The European dimension of programmes, combined with the establishment of joint degrees, seems to be an important challenge for some countries, while others are concerned about the introduction of the three-cycle degree system; lifelong learning and its recognition; widening participation; governance, strategy and legislation. It is significant that few countries see recognition of degrees and study periods as major issues for the future, and this suggests that there may be a level of complacency because most countries have complied with the *letter* of the Lisbon Recognition Convention, as mentioned earlier in this report.

In the concluding section of the report, there is further comment on the challenges for the future that have been identified objectively through the 2007 stocktaking.

Table 5
National level challenges identified by countries

Future challenges mentioned in national reports	Number of countries (%: n=48)
Quality assurance, accreditation	27 (56%)
Student and staff mobility (more related to students)	23 (48%)
Employability and stakeholder involvement	20 (42%)
Research (including doctoral studies)	18 (38%)
National qualifications framework, outcomes-based qualifications	17 (35%)
Funding (including better allocation of resources; management)	17 (35%)
European dimension in programmes, joint degrees	14 (29%)
Issues at institutional level (including autonomy)	13 (27%)
National level governance, strategy and legislation for higher education	9 (19%)
Degree system	8 (17%)
Lifelong learning	8 (17%)
Widening participation	8 (17%)
Recognition	5 (10%)

3

Conclusions and recommendations

This section of the report draws conclusions about the progress within the Bologna Process since 2005. It also makes recommendations for the future based on the analysis in the preceding chapters.

Conclusions of the 2007 stocktaking

There are three main conclusions that can be drawn from the 2007 stocktaking:

4. There has been good progress in the Bologna Process since Bergen
5. The outlook for achieving the goals of the Bologna Process by 2010 is good, but there are still some challenges to be faced
6. Stocktaking works well as an integral part of the Bologna Process strategy.

Conclusion 1

There has been good progress in the Bologna Process since Bergen.

The stocktaking shows that there has been good progress on all the priority action lines that the Ministers set in the Bergen communiqué. The indicators were more demanding in 2007 than in 2005, to reflect the progress that is needed if the implementation of all action lines is to be completed by 2010.

Table 6 below shows the rank order of mean scores on all twelve indicators in the 2007 stocktaking.

Table 6
Rank order of indicators for 2007 stocktaking

Rank	Indicator (number in scorecard)	Mean score
		2007
1	Establishment and recognition of joint degrees (12)	4.6
2	Access to the next cycle (2)	4.5
3	Implementation of external quality assurance (5)	4.2
4	Stage of implementation of ECTS (10)	4.2
5	Implementation of S&G in quality assurance (4)	4.2
6	Implementation of 1st and 2nd cycle (1)	4.1
7	Implementation of diploma supplement (8)	4.1
8	Student participation in quality assurance (6)	4.0
9	Implementation of LRC principles (9)	4.0
10	Recognition of prior learning (11)	3.7
11	International participation in quality assurance (7)	3.5
12	Implementation of national qualifications framework (3)	2.9

The indicators with the greatest growth in mean scores since the 2005 stocktaking are shown in table 7.

Table 7
Indicators with greatest growth in mean scores since 2005

Indicator	Mean scores	
	2007	2005
Student participation in QA	4.0	3.0
Access to the next cycle	4.5	3.9
Implementation of two-cycle degree system	4.1	3.6
Implementation of external QA system	4.2	3.8

Areas where there has been most progress in 2007

Degree system

Countries have made good progress on implementing the two-cycle degree system and on providing access to the next cycle, as shown by indicators 1 and 2. It is likely that there will be further progress on these indicators in the near future, because there are a number of countries where new laws have already been adopted, or where implementation of the two-cycle system has started. There is also a trend towards the introduction of structured doctoral programmes in the third cycle.

Quality assurance

The results on indicator 5 show that there has been good progress on the development of external quality assurance systems at national level. Indicator 6, student participation in quality assurance, while leaving room for further development, is the indicator that shows the greatest improvement since 2005. Indicator 4 demonstrates that there is potential for further progress in implementing the *Standards and Guidelines for Quality Assurance in the EHEA* adopted by the Ministers in Bergen.

However, while there has been progress across the board in the area of quality assurance, the establishment of a genuine quality enhancement culture in higher education institutions is the future guarantee of sustainable quality. Some elements of internal quality already exist in all higher education institutions and some others are new. Bringing all these elements together to achieve a "quality culture" will be the task for the coming years.

Recognition

The very strong result on indicator 12 demonstrates that arrangements are largely in place for the awarding and recognition of joint degrees, but it does not show the level of real implementation. There has been good overall progress on implementing the diploma supplement and ECTS, which is being used for both credit transfer and accumulation. However, credits are not always awarded on the basis of learning outcomes, a finding which is confirmed by the ESIB survey.

Conclusion 2

The outlook for achieving the goals of the Bologna Process by 2010 is good, but there are still some challenges to be faced.

The evidence from the 2007 stocktaking shows that the Bologna Process is moving towards achieving its goals by 2010, but there is still some way to go before the process of reform is complete across all action lines and all countries.

Areas where there is still work to be done

National frameworks of qualifications

The Ministers said in Bergen that they expected countries to have started work on implementing their national frameworks of qualifications by 2007. From the results on indicator 3, it is clear that while work has indeed started, it is not very advanced in most countries. As this is a relatively new element of the Bologna Process, there may be confusion and even resistance to the notion of a national qualifications framework. The benefits of a framework for learners, higher education institutions and the economy may not yet be fully recognised in some countries.

The stocktaking found that there is some confusion between the European Framework of Qualifications for Lifelong Learning and the *Framework for Qualifications of the European Higher Education Area*, which may also have delayed development in some cases.

International participation in quality assurance

Another area where there has been little progress is international participation in quality assurance (indicator 7), which appears to pose difficulties for many countries. There has nevertheless been progress on cooperation through ENQA, with an increasing number of quality assurance agencies applying for membership. The results for this indicator will improve when more countries introduce external evaluation of their quality assurance agencies, which has not yet happened widely.

Linking the different action lines

While the 2007 stocktaking found that there has been progress on specific action lines and indicators, it is not enough to look at these in isolation because all aspects of the Bologna Process need to be seen as interdependent. There are two

themes that link all action lines: a focus on *learners*, and a focus on *learning outcomes*.

Focus on learners

It is important to consider how the Bologna Process is meeting the needs and expectations of learners. Based on the goals that Ministers have declared in the series of communiqués since 1999, learners can reasonably expect that by 2010 the Bologna Process will ensure that

- the different cycles of higher education in all participating countries are easily understood
- the quality of higher education in these countries is assured
- higher education qualifications that are awarded in all participating countries are recognised in all other countries for access to employment, education and research opportunities
- higher education provides flexible learning paths that are part of the lifelong learning continuum
- higher education is accessible to everyone without social or economic obstacles.

The 2007 stocktaking shows that there has been good progress on the first two points related to the transparency and quality of higher education, but there are still some problems with recognition. In addition, there are still questions about the employability of bachelor degree holders and about the opportunities that exist for doctoral graduates to take up research careers. It also seems that it will be some time before flexible learning paths become a reality in all countries.

Focus on learning outcomes

The three Bologna cycles are based on generic descriptors of learning outcomes, so it is clear that describing higher education programmes in terms of learning outcomes is a precondition for achieving many of the goals of the Bologna Process by 2010. Learning outcomes are critically important in the development of national qualifications frameworks, systems for credit transfer and accumulation, the diploma supplement, recognition of prior learning and quality assurance.

However, the 2007 stocktaking shows that the movement towards adopting a learning outcomes approach in higher education takes time. This is particularly evident in the slow progress on establishing national qualifications frameworks

and arrangements for the recognition of prior learning. Very few countries have put in place national qualifications frameworks that provide seamless progression for learners through all cycles of higher education, thus affirming the national commitment to lifelong learning.

Conclusion 3

Stocktaking works well as an integral part of the Bologna Process strategy.

It is evident from the 2005 and 2007 stocktaking that the process of collaborative peer-reported self-evaluation has been effective in encouraging countries to take action at national level.

The 2007 scorecard summary shows that the overall picture within the Bologna Process is much more “green” than it was in 2005. The results in the preceding section of this report indicate that there has been considerable movement towards achieving many of the main goals set by the Ministers in Bergen. The stocktaking used a combination of quantitative and qualitative analysis to assess not only the progress against a set of objective indicators and criteria, but also to examine the stage of development in a number of other related areas.

From the experience of both the 2005 and 2007 stocktaking exercises, it is clear that the quantitative aspect of stocktaking works well when there are clear policy goals and specific targets that can be translated into a scorecard to measure progress against these goals and targets. In 2005 the Bologna scorecard was used for the first time, and it was used again in 2007. Although the indicators and criteria were modified to take account of the changes that were expected to have happened in the intervening period, the scorecard nevertheless provides a valid measurement of progress over the two years.

The 2007 stocktaking also included qualitative analysis of a number of themes from the Bergen communiqué that were covered in national reports but not included in the scorecard. This enabled countries to report on their progress using a process of self-review. The stocktaking then evaluated progress at collective level, and complemented the scorecard analysis with qualitative reporting on these themes.

This combination of analytical approaches reflects the fact that the various aspects of the Bologna Process are at different stages of development and some

may not yet be ready for quantitative measurement. Fig Z below shows a model of a goal-driven development cycle that includes five "steps to success":

1. Agree the policy goals, linking them to a vision for the future that is shared by all participating countries
2. Set targets to be achieved within a certain time frame (make sure they are specific, measurable, achievable, relevant and timed: SMART)
3. Take action at national level and collectively (provide relevant support, share good practice, encourage peer collaboration)
4. Review progress individually: self-evaluation using agreed criteria (scorecard) complemented by qualitative reporting
5. Evaluate achievement collectively (stocktaking).

Fig. 4 A goal-driven development cycle



Recommendations from the 2007 stocktaking

Recommendation to Ministers

Set clear policy goals and specific targets for the next period of the Bologna Process, especially in the areas of the third cycle, employability, research, lifelong learning, flexible learning paths and the social dimension.

Recommendations for countries

5. Work towards fully implementing a national qualifications framework based on learning outcomes by 2010.
6. Link the development of the framework to other Bologna action lines, including quality assurance, credit transfer and accumulation systems, lifelong learning, flexible learning paths and the social dimension.
7. Ensure that progress is promoted across all action lines, including the more challenging aspects that are not easily and immediately attainable.
8. Make formal links between the Bologna Process and the ENIC/NARIC network to undertake further work on developing and implementing national action plans for recognition.

Recommendations for future stocktaking

Repeat the stocktaking in 2009, with the close collaboration of other partner organisations, including Eurydice, EUA and ESIB, in setting out the timetable and the arrangements for data collection and analysis.