

Europe in a funk

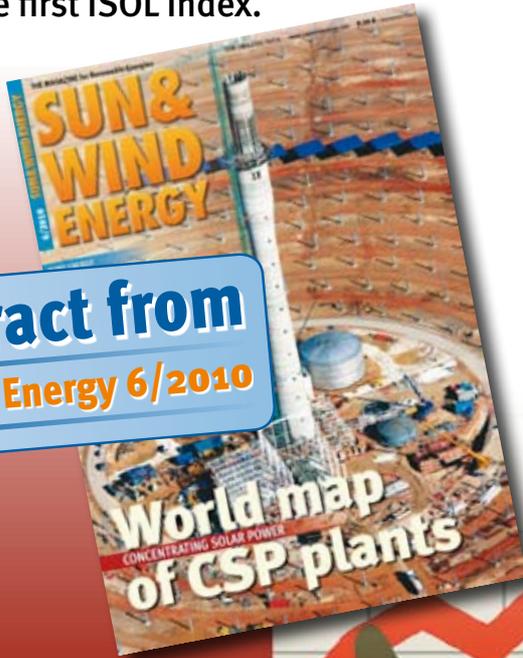
The Solrico agency has developed the International Solar Index (ISOL Index) which reflects the business climate of the global solar heating & cooling industry. Data from 222 companies in 41 countries formed the basis for the first ISOL Index.

Currently, only 60 % of companies in the global solar thermal industry are satisfied with their sales volume and the return on investment of their solar thermal business. To the question, “how satisfied are you with the current sales volume and return on investment of your solar thermal business,” every third company answered either “fairly satisfied” or “dissatisfied” (see fig. 1).

However, when asked about the outlook for sales volume over the next six months their mood brightens; 92 % of the companies expected a satisfactory to very satisfactory sales volume in the next half year. Even when asked about return on investment (ROI) for the same period, a full 86 % of the companies shared this positive view.

The industry’s self-assessment of its willingness to invest is high. To the question, “how would you rate the current level of investments in your solar thermal business,” 64 % responded with either “high,” “very high,” or “extremely high.” In figure 2, these responses are marked yellow, orange, and red, respectively (see the text box on page 64X).

Extract from
Sun & Wind Energy 6/2010



In Germany, Italy and Spain the mood in the solar industry is quite depressed. In contrast, the Czechs see their future more optimistic.

Graphics (2): Pitopia/Pamela Hiltl

Over the next six months, fully 69 % of the companies believe that their investments will be “high,” “very high,” or “extremely high.” The yellow-orange-red part of the lower bar in the chart is even longer.

The results are based on 222 completed questionnaires from companies in the solar heating and cooling industry in 41 countries of the world. Solrico was responsible for the survey, a global network of solar thermal experts who are specialised in market research and international communication in the solar-thermal industry. Partners in India, China, Brazil, South Africa and Europe work on the survey of 450 companies around the globe. The editorial departments of SUN & WIND ENERGY and SONNE WIND & WÄRME magazines supported the development of the new business index and are the exclusive publishers of the initial results.

Participants of the survey were manufacturers of flat-plate, vacuum-tube, air, and high-temperature collectors, as well as solar hot water tanks, controllers, coated sheet metal, and equipment manufacturers. Solrico was satisfied with the 50 % response

rate, particularly since the large manufacturers from key solar thermal markets like China, Turkey, India, Germany, and Brazil took part. The positive response from Germany (27 companies) was pleasing, as were the responses from India (21 companies), Brazil (19 companies), China (18 companies), and the U.S. (12 companies), along with Greece and Turkey (10 companies each).

Years of experience have shown the Solrico team that the industry leans toward optimism. Even in times of crisis, companies tend toward optimistic estimates. Only regular, standardised surveys will indicate how the industry is actually developing. And that is precisely what Solrico intends to do. The ISOL Index questionnaire campaign carried out for the first time in Spring 2010 will be repeated in September/October 2010 and thereafter in a semi-annual rhythm.

Solrico calculates the International Solar Index by weighting responses according to a points system, which allows Solrico to calculate an individual ISOL Index between 0 and 100 points for each company



The ISOL Index

The International Solar Index (ISOL), developed by the Solrico agency, gauges the global solar heating & cooling industry's level of satisfaction with its sales volume and return on investment (ROI). The first survey, conducted in the spring of 2010, included responses from 222 component manufacturers and suppliers from 41 different countries. The questionnaire campaign for the ISOL Index will take place again in September/October 2010 and semi-annually thereafter. Regularly evaluated according to a standardised process, the ISOL Index is designed to be a long-term indicator of national and international market development.

The business climate describes both the current situation and expectations for future business, using the subjective mood of business people as its standard of measure. The ISOL index is based on six questions. In line with the established Business Climate Index developed by the German Ifo Institute for Economic Research, three of the questions relate to the current business climate and three relate to expectations for the next six months. Along with the four questions shown in fig. 1, the index questionnaire also includes questions pertaining to the level of current and planned investments. (see fig. 2).

These six questions about current and projected business development, as well as present and planned investments provide the data for the ISOL Index.

Source: Solrico index questionnaire spring 2010

Fig.1 Business development in the solar thermal industry

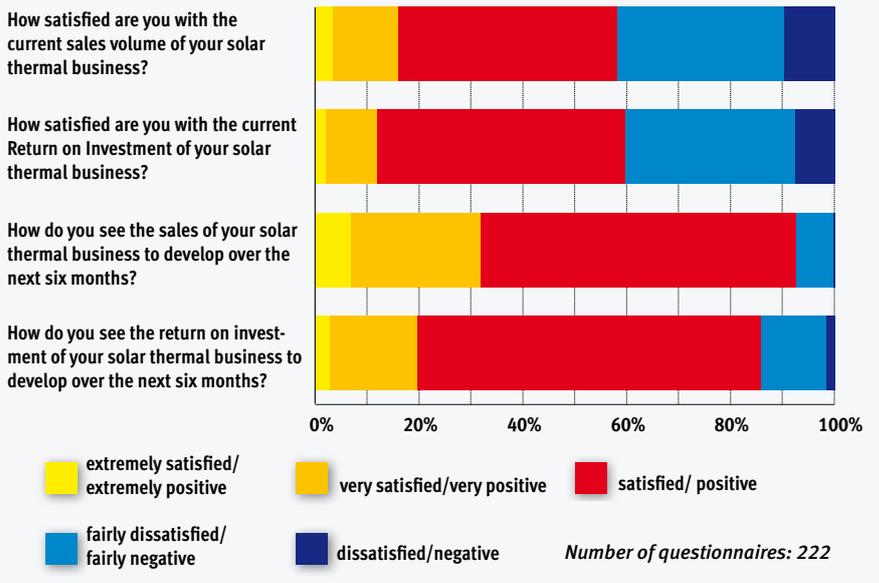
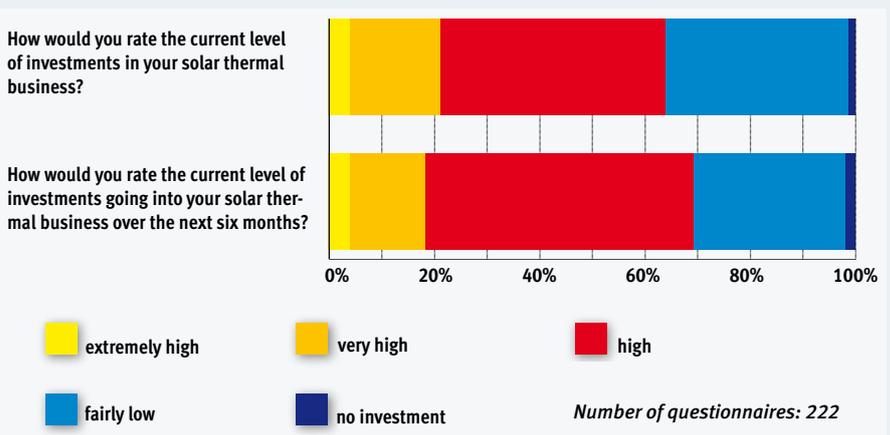


Fig.2 Willingness to invest in the solar thermal industry



participating in the survey. 0 indicates the worst conceivable state of business and 100 the best conceivable state. Indeed, the values for the company-specific spring indices of the 222 firms covered the full spectrum from 0 to 100 points.

Company values were averaged to obtain company, region, and sector-specific indices. The results were not weighted by indicators such as the amount of collector area produced. The country indices only provide insight into the development of the domestic solar thermal market in countries where the industry does not export a high percentage of its products.

Country indices: the largest solar markets

The business climate for a particular country can be assessed by averaging the indices of its individual companies. Figures 3 and 4 show the indices for countries from which at least six questionnaires were returned. Using this criteria, the survey was able to

cover most of the world's largest solar thermal markets. Australia, Israel, Japan and France were not included because not enough companies from those countries responded, in part because just a few companies comprise the solar-thermal industry in those countries. The survey did not include system integrators and importers. The country-specific ISOL indices shown in fig. 3 are between 40 and 58 points. China and the Czech Republic have the highest scores, with the U.S., Italy and Spain taking up the rear. The global average of all 222 companies for the spring 2010 ISOL Index is 47 points. Seven of the key markets shown exceed the global average, while five were below it.

The Czech Republic finished surprisingly well. While its solar thermal market is small, it achieved 58 points on the ISOL Index, the highest value. A few extremely satisfied companies pushed the index value to its high level.

In Turkey, it was the export-heavy collector and tank manufacturers that propped up the index. Taken separately, this sub-group had an ISOL Index of 56

points (country average: 53 points). Companies which exclusively sell their products domestically have a significantly lower score, at 51 points.

The strong results of the Chinese industry were no surprise. After all, newly installed collector area rose by 29 % in 2010 to 40 million m².

U.S., India and Brazil optimistic, Germany sceptical

Fig. 4 reveals more details about the sentiment in the individual countries. It shows the partial results from which the values in fig. 3 are derived. The numerical value shown in the blue box in fig. 4 is the ISOL Current State Index, which only takes into account the questions about the current state of business.

Companies' expectations about business development over the next six months are indicated in fig. 4 by green arrows of varying thickness. The thick arrows indicate highly optimistic sentiment within the industry in the corresponding countries, while thin arrows indicate guarded optimism within the industry with regard to the forecast for the next six months. All of the arrows point upward, which is to be expected in an optimistic growth industry. The results that give this impression, however, are merely average values for each country and they conceal the fact that there are still 39 companies in different countries which are projecting shrinking sales volume and/or ROI over the next half year. A glance at this chart is especially useful in developing a forward-looking assessment of the countries that showed weak results in fig. 3, the U.S., Italy and Spain.

In terms of the current state index value (the number in the blue box), the U.S. finishes worst, at 34 points. This figure is due to companies new to the collector industry which are very dissatisfied with the development of their sales volume, especially in light of the stagnation of the solar thermal market in 2009. India, at 39 points, is not much better off.

In both countries, however, the industry holds out a justified hope for improved market conditions, as the thick upward-pointing arrows indicate. The good news in the United States comes from California and Washington D.C. In California, following a two-year pilot phase, a comprehensive investment incentive programme is in place which will make \$ 350 million available over an eight-year period. Furthermore, an energy bill is under discussion in Washington which would create nation-wide renewable energy quotas, not only for power companies, but for gas companies as well. Generally, energy generated by solar heating and cooling systems could be applicable toward fulfilling such quotas.

The Indian solar thermal industry was bolstered by the November 2009 publication of the "National Solar Mission," which calls for 20 million m² of newly installed collector area by 2022. Early this year, the Ministry for New and Renewable Energy passed a regulation requiring all public buildings to conform with the ECBC energy-efficiency standard, which specifies

that solar thermal systems must be used to heat hot water in buildings consuming at least a fifth of their energy for water heating.

Along with India and the U.S., fig. 4 shows a strong upward trend in Brazil. The Brazilian solar thermal industry presently enjoys a number of incentive programmes which together will result in stable, double-digit year-on-year growth. The measures include:

- Thermosiphon systems in public housing are subsidised to allow low-income families to save electricity costs for domestic hot water.
- Since July 2007, some 30 cities have passed solar construction requirements. The metropolis of São Paulo, with its 19 million residents, was the first when it passed a solar water heating requirement for all new residential buildings, as well as commercial buildings, such as hotels, sport clubs, schools and swimming pools.
- The national electricity regulatory agency (ANEEL) requires power companies to invest 0.5 % of their net revenues in power-saving measures. The power companies are particularly fond of solar thermal systems, since they generally replace instantaneous electric heaters.

At 43 points, the ISOL Index of the current state of business in Germany's solar thermal industry is in line with the global average. At the time the survey was conducted, however, manufacturers' forecasts of business development for the next six months were only marginally better than the average (thin green arrow in fig. 4), despite the lack of clarity at the time as to how the subsidy situation would develop. It is now clear that funding from the market incentive programme (Marktanreizprogramm, or MAP), a significant market engine, dried up in May. The ministry responsible for the MAP programme announced that no new applications would be considered after May 3, 2010. That means that home owners no longer receive government incentives for solar thermal systems. This could result in a collapse in demand for solar thermal systems, perhaps in the third quarter, and certainly in the fourth quarter of this year.

Global regions: Middle East and Africa take the lead

As in Germany, the outlook for solar thermal is not good in other European countries. The green arrows for Austria, Greece and Spain (see fig. 4) are rather thin. That indicates that the industry in those countries expects only a slight improvement to business development over the next six months.

The European Union thus does not compare favourably with the indices for other global regions (see fig. 5 and 6). With its 46 points, the EU is tied with the "rest of the world" for second-to-last place in the ranking, just before North America.

It is also interesting that the German companies, which with 27 questionnaires were well represented, had

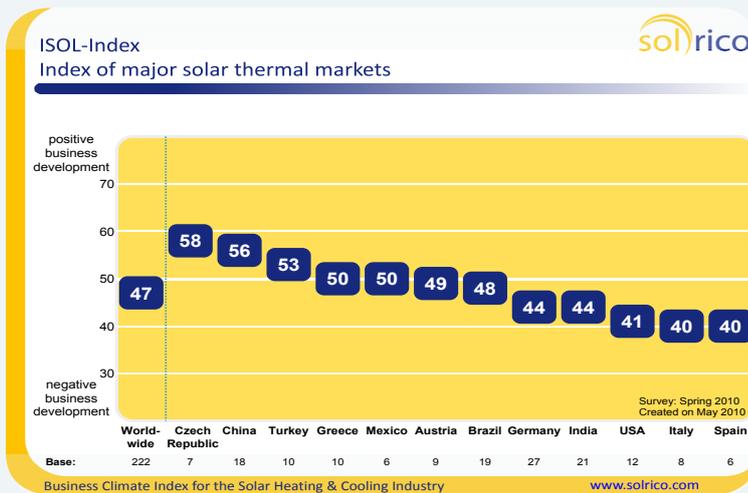


Fig. 3: International Solar (ISOL) Index for selected global solar thermal markets in which more than six questionnaires were returned from national component manufacturers and suppliers. The index, which ranges from 0 to 100 points, reflects the companies' level of satisfaction with the current state of business, as well as their forecasts for the next six months. The base shows the number of questionnaires returned in the respective countries of the ISOL Index. Source: Solrico Index questionnaire, spring 2010

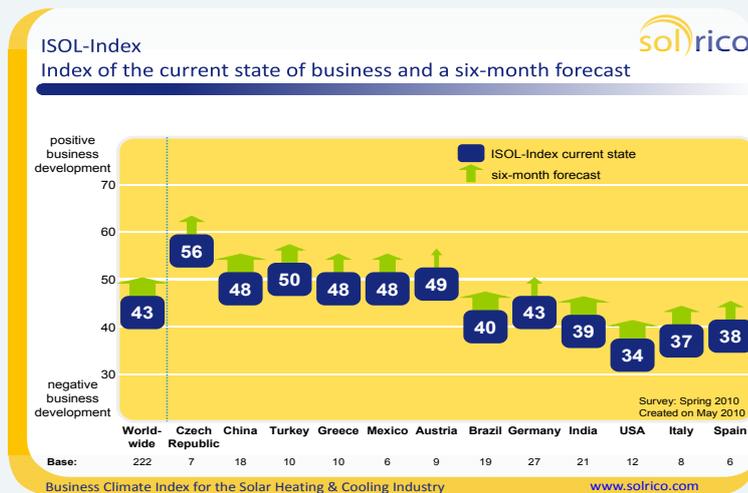


Fig. 4: This chart shows the International Solar Index (ISOL) for the current state of business in the countries represented in fig. 3 based on only three of the six questions. A thick green arrow indicates a very optimistic sentiment in the industry for that country, while a thin green arrow indicates guarded optimism with regard to the business forecast over the next half year. Source: Solrico Index questionnaire, spring 2010

so little influence on the European index. Excluding the German companies from the calculation only boosts the index by a single point to 47 points.

Within the European Union, Poland and the United Kingdom had the highest index values. Portugal takes up the rear with an index score far below the global average. Concrete index values for these countries will not be discussed here due to insufficient data.

The industries in Africa and the Middle East showed themselves to be both satisfied with current business conditions and with a positive outlook for future business. This conclusion, however, was based on the evaluation of only twelve questionnaires, and there were great disparities between countries.

The ISOL Index for Jordan and Israel is well over 50, while those from Tunisia and South Africa are well below that figure. Concrete index values for those countries are not presented here due to insufficient data.

The ISOL Indices for Central and South America reflect their respective key markets in Mexico and Brazil, which had very similar country indices. Both countries have good potential and have been bolstered by accompanying political measures. It will thus be intriguing to see how this region does in the autumn survey.

The ISOL Index for Asia, at 48 points, is doubtless due to the high rate of growth of the Chinese industry (fig. 1). Excluding China, the Asian countries finish well below the global average at 43 points.

Countries included in the "rest of the world" region are those which could not be clearly assigned to the other global regions and those, like Australia, for which there was an inadequate number of questionnaires. There was also a great disparity between the countries in the "rest of the world" category. Turkey was on top with an ISOL Index of 53, while Switzerland, with its 46 points, held the middle ground. Russia and the Ukraine trailed far behind with a combined score of 29 points. Russian and Ukrainian companies are struggling to tap their markets without any government assistance. Nevertheless, the industry there sees excellent growth potential. That Solrico for the first time ever received three responses from Russian manufacturers and two from the Ukraine is thanks to the Russian translation of the questionnaire.

Value chain: equipment suppliers optimistic

Differentiation between manufacturers of different components reveals great differences in the index (see fig. 7). Equipment manufacturers show an above-average level of satisfaction with the state of business and the outlook for the next six months; their index score of 51 is above the industry average. Among col-

Tab. 1: List of countries taken into account for the calculations in Fig. 5 and 6.

Global regions (number of companies)	List of countries (number of companies)
Middle East & Africa (12)	Tunisia (2), Jordan (2), Israel (3), Iran (1), South Africa (3) and Uganda (1)
Central & South America (26)	Mexico (6), Barbados (1) and Brazil (19)
Asia (47)	Japan (4), China (18), India (21), South Korea (2) and Thailand (2)
European Union (94)	Germany (27), Greece (10), Austria (9), Czech Republic (7), Italy (8), Poland (5), Spain (6), United Kingdom (3), Cyprus (4), Portugal (3), Belgium (2), Denmark (2), Netherlands (3), Slovenia (3), Bulgaria (1), Hungary (1), Slovakia (1)
North America (17)	U.S. (12), Canada (5)
Rest of the world (26)	Turkey (10), Switzerland (6), Russia (3), Ukraine (2), Australia (2), New Caledonia (1), Serbia (1), Liechtenstein (1)

lector manufacturers, the index for vacuum-tube collectors, at 49 points, is three points above the flat plate collector manufacturer average of 46. Coating manufacturers achieve an average index of only 40 points. However, the non-European coating firms bring the value down. Taken separately, the European coating companies have an ISOL Index of 45 points.

Continued high rates of company participation needed

The results presented here merely present an initial picture of the conclusions that the ISOL Index enables us to draw about the industry and its market development. Of course, the assessments will really be interesting and informative once time-series index data is available, allowing for long-term comparisons.

Furthermore, the ISOL Index can only develop into the desired reliable industry barometer if the high rate of company participation in the questionnaire continues.

The Solrico team is working to obtain more information, especially from regions for which little information has been available so far; among them Africa and the Middle East, as well as Central and South America.

The Solrico team is thus looking forward to the continued cooperation of the international solar heating and cooling industry in September/October. The results of the autumn ISOL Index survey will be published in S&WE 12/2010.

Bärbel Epp

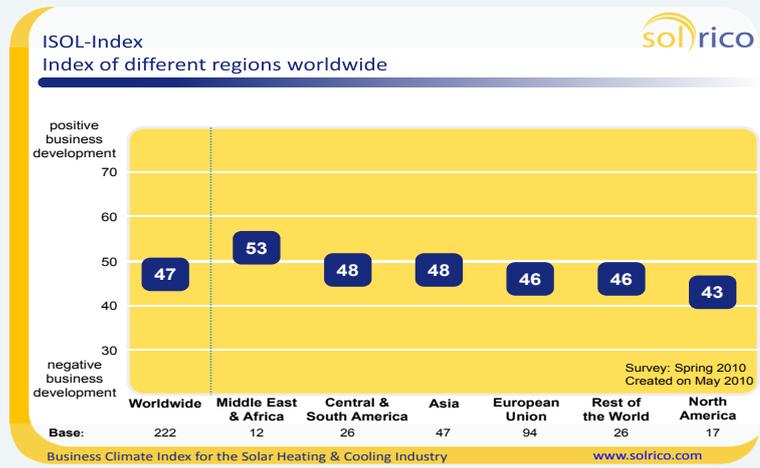


Fig. 5: ISOL Index for various global regions. Tab. 1 shows which countries formed the basis for the calculation. The ISOL Index ranges from 0 to 100 points. The base shows the number of questionnaires returned from the respective countries included in the ISOL Index. Source: Solrico Index questionnaire, spring 2010

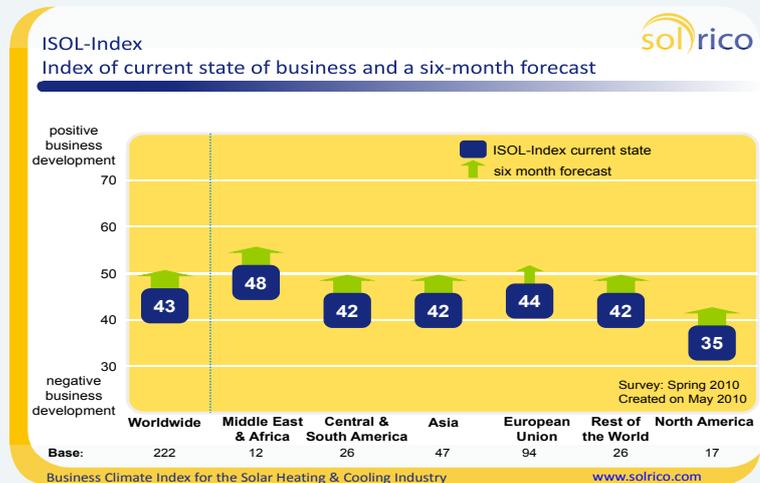


Fig. 6: This chart shows the International Solar Index (ISOL) for the current state of business in the countries represented in fig. 5 based on only three of the six questions. A thick green arrow indicates a very optimistic sentiment in the industry for that country for the next six months, while a thin green arrow indicates guarded optimism with regard to the business forecast over the next half year. Source: Solrico Index questionnaire, spring 2010

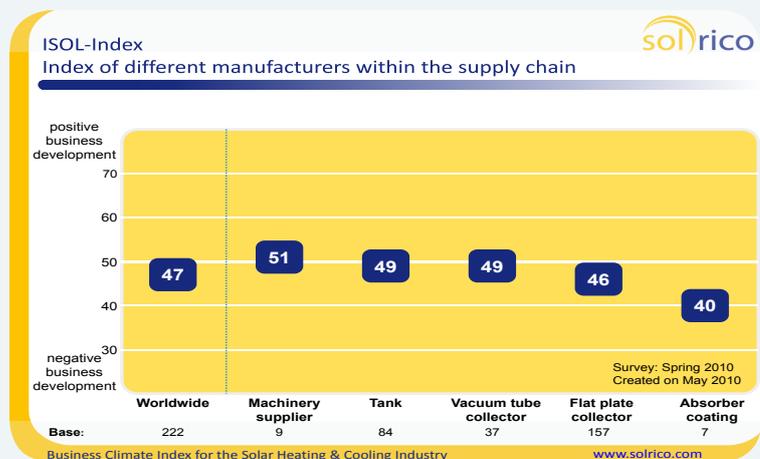


Fig. 7: ISOL Index for various groups of manufacturers in the supply chain. The Index ranges between 0 and 100 points. Indices from companies which produce hot water tanks and flat plate collectors, for instance, are included multiple times in the average values. The base shows the number of questionnaires returned in the respective countries included in the ISOL Index. Source: Solrico Index questionnaire, spring 2010