

# European Trend Chart on Innovation Policy Review Workshop:

## *“Benchmarking ‘Innovation Excellence’ as a tool for Innovation Policy”*

### Analysis of Country Templates

#### 1. INTRODUCTION

This report forms an input to the European Trend Chart on Innovation Policy Review Workshop “Benchmarking ‘Innovation Excellence’ as a tool for Innovation Policy”. It addresses the theme of recognition and public diffusion of innovation excellence in EU member states, Accession countries and Associate countries.

#### 1.1 Conceptual issues

Questionnaire defines Innovation Excellence as being:

- National Innovation Prize or Award,
- Company Benchmarking Exercise or
- visits to ‘excellent’ Companies.

In addition, questionnaire asks whether country has visible national publicity actions to promote Innovation or Excellence in Firms (e.g. Innovation Week).

For each of the three schemes questionnaire records 14 attributes:

- type (closed or open benchmarking scheme, company visiting scheme, award),
- geographical coverage, (regional, national, cross country, European-wide, World-wide, other)
- organiser (public administration, industrial association, consulting company, media),
- involvement of public policy (responsible organiser, official patronage, providing finance, one sponsor together with others),
- methodological support from whom,
- history (one short exercise, annual, ongoing),
- type of companies covered (all, SMEs, start-ups, manufacturing industry, services, specific sector),
- number of participating companies,
- innovation aspect covered (R&D, product, development, innovation management, manufacturing),
- conditions of participation (open call, ‘closed shop’, participation fees),
- methodological issues (explicit ‘excellence’ parameters, qualitative or quantitative assessment, assessment by expert panel, ranking or follow up of results i.e. performance of identified leaders)

- data collection method (desk research, questionnaire, web based self assessment tool, telephone interviews, visit /audits by experts)
  - availability of data on results (fully transparent or anonymised data on participating companies, transparent data on leaders but anonymised on others, data restricted to benchmarking club),
  - use of results by public policy (large scale publicity, targeted information of the group of companies concerted, results are used as input for other policies).
- For list of schemes of innovation excellence by country see Annex I

## 1.2 Methodological issues

- Questionnaires have been collected for 30 countries. Data are not available on Czech Republic, Malta and Cyprus.
- National correspondents did not have major problems in classifying or in understanding the concepts. However, possible omissions may relate to the incomplete coverage of regional innovation prizes, especially in case of large countries, and of incomplete overall coverage in large countries, especially Germany. In Germany, several Federal States (Länder), regional authorities, Chambers of Commerce, Industrial Associations, Trade Unions, Companies, Consultants, Public Research Organisations, and Federal Ministries run their own Innovation Awards. It is likely that there are some dozens of innovation awards being advertised every year in Germany. Many of these awards are sector or technology specific. In case of Spain, several regional awards (Asturias, Galicia, Murcia, Castilla la Mancha, Castilla y León, Madrid..) have their respective awards which have not been included in Taxonomy forms.
- Some countries may have schemes which do not rely directly to innovation but to quality and which are not recorded here. For example, Lithuania's only scheme to promote excellence is the national quality prize under the National quality programme of the Ministry of Economy, executed by Quality council. It is awarded yearly since 1998, and companies are allowed to use attribute of the prize on the products.
- Data for Lichtenstein should be read by taking into account that some innovation awards in Switzerland also accept the participation of firms from Liechtenstein.
- Belgian national correspondent points out that there is not any information of company benchmarking exercises. There are however examples of large scale studies that gather and compare information on companies, notably with respect to innovation such as a number of studies/projects undertaken within the context of the Policy Research Centre "Entrepreneurship, enterprises & innovation". This may be relevant for other countries, i.e. benchmarking may be more developed than indicated by our data.
- Also, number of company visits may be higher than indicated by data. For example, initiatives that cannot be considered as a scheme but that take place on a regular basis are the company visits organised within the context of the large centres of excellence, such as, for instance, those organised by Flanders Drive (Belgium) (the centre of excellence and innovation platform of the Flemish automotive industry that organises on a regular basis visits to leading companies in the field.

## 2. RESULTS

### 2.1. General overview

Table 1 presents overview of ‘Innovation Excellence’ schemes and national publicity actions to promote innovation across 30 countries.

**Table 1: Overview of ‘Innovation Excellence’ schemes and national publicity actions to promote innovation**

	Country	Awards				Benchmarking exercises				Company visits		Visible national publicity action	
		One public	One private	Several	Not	Public	Private	Mix	Not	Y	N	Y	N
1	Austria	X							X	X		X	
2	Belgium			X					X		X		X
3	Denmark			X					X		X		X
4	Finland			X								X	
5	France			X			X				X		X
6	Germany	X	X	X					X	X		X	
7	Greece	X							X		X		X
8	Ireland			X		X					X		X
9	Italy			X			X				X		X
10	Luxembourg												
11	Netherlands			X		X					X		X
12	Portugal				X				X	X		X	
13	Spain	X				X					X		X
14	Sweden			X					X		X		X
15	UK			X				X		X		X	
16	Bulgaria			X					X		X		X
17	Estonia	X							X		X		X
18	Hungary		X						X		X		X
19	Latvia			X		X					X		X
20	Lithuania				X				X		X		X
21	Poland	X							X		X		X
22	Slovakia				X	X				X			X
23	Slovenia			X					X		X		X
24	Romania			X		X					X		X
25	Turkey	X							X		X		X
26	Iceland	X							X	X		X	
27	Israel			X							X		X
28	Liechtenstein	X							X		X		X
29	Norway			X			X				X		X
30	Switzerland			X				X		X		X	
	Total	9	2	16	4	6	3	2	15	7	21	17	11

1. By far the most frequent type of recognition for innovation excellence are innovation awards. These are present in 27 countries, followed by benchmarking exercises (11 countries) and than company visits schemes (7).

2. About half of countries (16 out of 30) have several innovation awards. Eleven countries have only one award be it public (9) or private (2) award for innovation.
3. Only 3 countries for which data are available do not have any innovation awards (Portugal, Lithuania<sup>1</sup> and Slovakia). However, it seems that only Lithuania does not have any other form of Innovation Excellence recognition be it benchmarking exercises or company visits schemes.
4. Half of countries (15) do not have company benchmarking exercises. This seems to be area where many countries have large room for improvements.
5. Majority of awards and company benchmarking exercises are organised by public organisations or in cooperation with private organisation. There seems to be dearth of private sector led initiatives or public – private actions.
6. In three quarter of countries for which data are available company visits to high performing firms is not established practice. In only 7 countries there are schemes of this kind.
7. More than half of countries (17 out of 30) have established visible national publicity actions to promote innovation or Excellence in Firms. However, data show that there is a big variety of national publicity actions to promote innovation. These ranges from dedicated projects like InnoFinlad or several regional innovation prizes for innovation to one day events and conferences, which is the most often form of publicity actions. Also, many of publicity actions are confined to narrow professional community rather than public at large.

- Probably, Finland has the most developed publicity actions in promotion of innovation. Finland has established INNOFINLAND a project which has promoted Finnish innovative activities since 1994. The purpose of the INNOFINLAND Project is to promote creativity, skill, entrepreneurial spirit and co-operation in Finland in a practical and creative way in order to improve opportunities to increase well-being nationally.

The programme intends to

- encourage companies and private persons to engage in innovative activities
- promote the development of novel inventions into commercial products
- spur to new business activities
- provide further opportunities for innovative entrepreneurs, financing organisations, and the public administration to network in order for them to establish an even closer co-operation
- emphasise the importance of innovative, small and medium-sized companies
- draw special attention to regional characteristics.

The background organisations of the INNOFINLAND Project consist of key national organisations supporting innovation activities.

- Denmark holds a one-day conference, in which the Minister for Science, Technology and Innovation, and people from the industry participate. France has established 'La fête de la science' - an important event celebrating scientific and technical culture sponsored by the Ministry of Research. It promotes innovation in its relation to science and does not specifically target excellence in firms' innovation strategy.

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<sup>1</sup> See methodological issues

- Greek General Secretariat for Research and Technology (GSRT) of the Ministry of Industry publicly organise the presentation and promotion of results of projects funded under its auspices in national and international fairs and exhibitions in Greece and abroad. The activity is not operated as a distinctive scheme, but it is one of the functions of the above Unit.
- The Netherlands holds an annual event that helps support the public debate on Innovation Policy - the 'Innovation Lecture', held by leading authorities in the area of Innovation. Prominent figures from science, technology and innovation are invited to participate.
- Portugal organise an Innovation Week by the Innovation Agency (AdI) in Oporto, to show achievements in innovation, namely regarding University/Industry cooperation.
- Spain does not have a national event specifically devoted to the promotion of innovation in Firms. However, there are many sectoral actions and some other at a regional, local scale. For example, the Catalonian Regional Government organizes the Innovation week.
- Sweden promotes innovation in firms by organising the Future Week 2004 at the Scandinavian Technical Fair which is the biggest meeting point on matters of research and innovation. Future Week includes seminars, panel debates, workshops and the presentation of several new innovations at Future Week's Research & Innovation stand.
- Switzerland has several visible national publicity actions to promote Innovation or Excellence in Firms. Most of the innovation awards are accompanied by visible publicity actions. Examples of these actions are: Swiss Economic Award, Venture 2004, W.A. de Vigier Foundation, Entrepreneur of the Year, Swiss Technology Award.
- Island and several other countries also organizes a conference in connection with the Innovation Prize.
- UK organizes 'Living Innovation', a joint DTI and Design Council initiative to discover what makes an innovative business tick and to share the lessons learned from their success. Living Innovation shows how, through a commitment to innovation, UK companies can outperform their competitors, introduce new products and services, and meet and exceed market expectations. Events are held inviting business leaders and some academic experts in the area of promoting innovation in companies.
- In Estonia there are no events similar to Innovation Week in Germany but only some actions connected with technology development award (media events, publishing of catalogue).
- In Belgium, there are many initiatives to promote innovation towards the larger public and in particular towards young people, but they are not targeted to firms specifically. In Flanders however, "Innoveer!" ("*Innovate!*") is a television

programme (on the business channel *Kanaal Z* <http://www.kanaalz.be/nl/default.asp>) in 10 episodes that concerns innovation and entrepreneurship (providing information, concrete examples) and that aims specifically at stimulating innovation in Flanders. The initiative is supported by the Flemish authorities (through the Institute for the Promotion of Innovation by Science and Technology in Flanders).

- Many countries have publicity promotion actions as one off actions. For example, Latvia has organised Exhibition on Research, Technologies, and Innovation in Riga in the framework of "High-Tech Baltics 2001". It was intended as the first major high tech exhibition in the Baltics targeted at enterprises and or technological centres willing to present any (commercially relevant product embodying self-generated ideas and technical knowledge. In February 2004, the Norwegian Minister of Trade and Industry hosted a one-day national conference on innovation. Presentations of cases of successful innovation in Norwegian firms were a central part of the conference which was to mark the beginning of a nationwide campaign for innovation.

## 2.2. Type of scheme

1. Eight countries have a high number of excellence schemes, in between 4 and 8. Eleven countries have two to three awards or low number (1 award) respectively (see table 2).

**Table 2: Frequency of Innovation Excellence recognitions**

	Number of countries
High (4-8)	8
Medium (2-3)	11
Low (1)	11

Table 3 shows list of countries with their overall number of schemes.

**Table 3: Number of schemes by country**

Italy	8	Belgium	3	Greece	1	Cyprus	na
Switzerland	7	Austria	2	Luxembourg	1	Czech Republic	na
France	6	Finland	2	Portugal	1	Malta	na
Ireland	6	Germany	2	Estonia	1		
Romania	5	Spain	2	Hungary	1		
Denmark	4	Sweden	2	Lithuania	1		
Netherlands	4	Bulgaria	2	Poland	1		
UK	4	Latvia	2	Slovakia	1		
		Slovenia	2	Turkey	1		
		Israel	2	Iceland	1		
		Norway	2	Liechtenstein	1		

2. By far the biggest number of schemes, 64 out of 78 or 82% are award schemes (see table 4). Benchmarking schemes (closed and open) and company visiting schemes are far less present.

**Table 4: Number of schemes by type**

	78	100.0%
Award	64	82.1%
Closed benchmarking scheme	6	7.7%
Open benchmarking scheme	5	6.4%
Company visiting	3	3.8%

### 2.3. Geographical coverage

1. By far the biggest majority of schemes or 77% are of national scope (61) followed by regional schemes (11) (see table 5).
2. Only 2 schemes are of the EU scope, 5 of worldwide scope and one of European scope.
3. In only 7 countries (Finland, France, Italy, Netherlands, UK, Norway, Switzerland) there are regional schemes for innovation excellence.
4. A majority of countries have schemes only at national level
5. All big countries have regional awards<sup>2</sup>.
6. Among small countries Finland, Netherlands, Norway and Switzerland have regional schemes

**Table 5: Number of schemes by geographical coverage**

Total	79	100.0%
National	61	77.2%
Regional	11	13.9%
Worldwide	5	6.3%
EU	2	2.5%
European	0	0.0%
Other	0	0.0%

<sup>2</sup> We do not have data on regional schemes of Germany although such schemes are quite numerous. See Methodological Issues.

## 2.4. Organiser

1. Most frequently organisers of Innovation Excellence schemes are public administration (44% of cases) and industrial association (37%)(see table6)
2. Consulting and media organise 10% and 9% of schemes respectively.
3. It is interesting that in Italy (7) and Denmark (3) all schemes are organised by industry associations

**Table 6: Innovation Excellence schemes by the type of organiser**

Total	90	100.0%
Public	40	44.4%
Industry	33	36.7%
Consulting	9	10.0%
Media	8	8.9%

4. All organisers of schemes within media are business or ITC related journals.

## 2.5. Involvement of public policy

1. Public policy has relatively dispersed types of support across all three types (organisation, patronage or finance). It operates as responsible organiser in 35% of cases, as official patronage in 24%, and provides finance in 24% of cases (table 7).
2. In 15 or 18% of cases public policy is co-sponsoring scheme with other organisation.

**Table 7: Involvement of public policy by type of support**

Total	84	100.0%
Responsible organiser	29	34.5%
Official patronage	20	23.8%
Providing finance	20	23.8%
One sponsor together with others	15	17.9%

## 2.6. Methodological support from whom?

1. Out of 78 schemes in 42 cases (53%) national correspondents cite the existence of methodological support. In 36 cases information about methodological support is not available. In only 4 cases national correspondents state that methodological support is not available.

2. Methodological support ranges from dedicated organisation to a very loose form of cooperation by whoever is involved in scheme organisation
3. Typical types of support are:
  - o Support provided by mixed teams of specialists and representatives of different organisations who are either members of Advisory Council of scheme or Foundation which is responsible for scheme;
  - o Very often local business people or experts in innovation support are cited sources of support
  - o Ministries or departments or members of Chambers of Commerce which are responsible for scheme
  - o In two cases methodological support is provided by World Bank and in cooperation with foreign technical assistance body
4. The impression is that the depth of methodological support very often does not go beyond expected information provision and ad hoc advice. This is expected given that the majority of schemes are awards rather than benchmarking exercises.

## 2.7. History

There are 65 schemes for which data about year of establishment are available (see table 8). Data show the following:

1. There have been two 'waves' of establishing schemes in 2004 (10 schemes) and 1999 (11 schemes).
2. The oldest schemes originate from early 1980s
3. Majority of schemes (41) originate from 1999 and later years.

**Table 8: Number of schemes by age**

Age of scheme	Number by age	Number until specific age	Share until specific age
2005*	1	65	100.0%
<b>2004</b>	<b>10</b>	64	98.5%
2003	6	54	83.1%
2002	4	48	73.8%
2001	6	44	67.7%
2000	3	38	58.5%
<b>1999</b>	<b>11</b>	35	53.8%
1998	2	24	36.9%
1997	4	22	33.8%
1995	4	18	27.7%
1994	2	14	21.5%
1993	1	12	18.5%
1992	2	11	16.9%
1991	3	9	13.8%
1989	1	6	9.2%
1987	1	5	7.7%
1985	1	4	6.2%
1984	2	3	4.6%
1983	1	1	1.5%

\* planned

4. Out of data for 77 schemes 53 or 69% are annual schemes, 16 are ongoing schemes and only 8 are one shot exercises (table 9).

**Table 9: Schemes by time frequency**

Total	One shot	Annual	Ongoing
77	8	53	16
100.0%	10.4%	68.8%	20.8%

## 2.8. Company Types

1. Out of 78 schemes, 29 or 37% are schemes covering all types of companies
2. However, majority of schemes are dedicated to a specific type of company be it SME, start up, manufacturing or sector specific schemes

**Table 10: Number of schemes by type of companies covered**

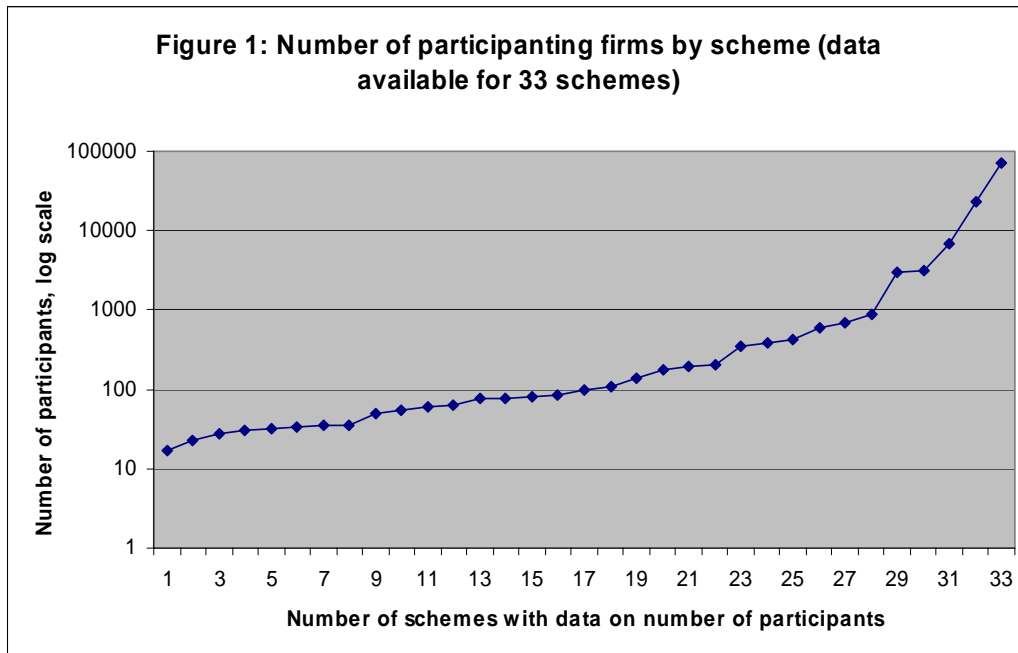
Total no of schemes	78	-----*
All	29	37.2%
Sector specific	23	29.5%
SMEs	21	26.9%
Start-ups	17	21.8%
Manufacturing	10	12.8%
Services	8	10.3%

\* Column does not add up to 100 as individual scheme may have several attributes

3. The biggest majority of the sector specific schemes (where these are specified) are organised in the ICT sector.
4. In some cases, targeted area is not sector specific but changes each year (Finnish InoFinland scheme) or targeted companies are only those operating within the framework of Technological Incubators Program (Israel, Denmark).

## 2.9. Number of participants

1. Number of participants depends greatly on the type of scheme. This number is much greater for open calls than for benchmarking schemes.
2. A few open calls make distribution of schemes by number of participants highly skewed. For example, number of participants reaches seventy thousand in Romania (Rising Stars awards) and 23000 in Germany in scheme organised for managers (DE32).
3. The number of enterprises participating ranges from 17 to 70000 with average number of firms of 3370. However, due to highly skewed distribution in this case it is more appropriate to use median which is 100. However, lack of data for all schemes makes our assessment of number of participants somewhat unreliable.



## 2. 10. Innovation aspect covered

- Most of the schemes address R&D (41) and product development (59) aspects. However, innovation management and manufacturing are also strongly present. These two latter stages are addressed by 37 and 34 schemes respectively (table 11).

**Table 11: Innovation aspect covered**

R&D	Product development	Innovation management	Manufacturing
41	59	37	34

- Twenty three schemes out of 75 address all four stages of innovation.
- None of the schemes covers only one aspect be it R&D or only product development but always at least two stages.

## 2.11. Conditions of participation

- The biggest numbers of schemes are open calls (52). Number of 'closed shop' calls is 18. There are only 4 schemes with participation fees

**Table 12: Conditions of participation**

Open call	Closed shop	Participation fees
52	18	4

## 2.12. Methodological issues

1. The most frequent mode of assessment is by expert panel (52 or 34%)(table 13), qualitative assessment (37 or 24%).
2. The most rare forms of assessment are by peer review (9) and by comparison with identified leader (6)

**Table 13: Methodological issues**

Total	152	100.0%
Assessment by expert panel	52	34.2%
Qualitative assessment	37	24.3%
Explicit 'excellence' parameters	21	13.8%
Ranking	16	10.5%
Quantitative assessment	11	7.2%
Assessment by peer review	9	5.9%
Follow up results? (performance of identified leaders)	6	3.9%

### 2.12.1. Assessment by expert panel

Questionnaires state a variety of compositions of expert panels. The following are excerpts which should give an idea of the composition of expert panels.

- Trends journalist and external sectoral experts
- Scientists, specialist of the food industry, experts from the distribution sector and media specialists, but also a final public vote by telephone
- The Award Selection Committee makes the final decision to whom the Millennium Technology Prize will be awarded. The Prize is awarded either to an individual or to a research team. The Award Selection Committee consists of four Finnish and four international members.
- Members of the business school 'CERAM
- local innovation support experts (ANVAR, Agence Régionale de Développement etc) local /regional actors in the field of innovation, representatives of the Ministries of Industry and Research, of the INPI, of the Newsmagazine 'L'ENTREPRISE', and previous winner
- Financiers and investors, actors in the field of innovation support, business people
- University professors, engineers and practitioners
- Leading business people, generally with a high technical/commercial expertise - may undertake a company interview as well as assessment of the written application
- The jury has a number of permanent members, all of whom sit on the Altran Foundation's Board of Directors. It also includes international specialists from the world of teaching and research, as well as from science, industry and technology centres
- Judging panel comprising leading business figures.
- Shortlisting Committee of CEOs, senior software executives and representatives of the ISA Executive Council. Shortlisted companies are invited for interview by the Awards Interview Panel, which consists of leading business figures from the software industry.

- Selection jury: There are 7 members of the jury panel, including at least: one head of business; one head of a research department; one marketing expert; one adviser on patents and one member of the FEDIL secretariat
- President of Economic and Social Council, General Manager of Technological Policy (Ministry of Science and Technology, Cotec Foundation and members of Academic and Industrial research.
- The expert panel will include three persons from each agency and relevant experts will be included when necessary
- Representatives of the Academy of Intellectual Property and Innovation, and Mortgage and Land Bank of Latvia
- Assessments by internal and two external experts
- Experts of the British Department of Trade and Industry
- Financial experts of the Romanian Chamber of Commerce and the British accountancy firm Dunlop Mills
- Evaluation Commission of the Romanian Academy and the Ministry of Education and Research
- Representatives from the public and private sectors and academia. Panel composition varies. 2004 panel - Former Chief Scientists of the Ministry of Industry, Trade and Labor
- Representatives of the economic and social department Basel-Stadt, economic and public health office Basel-Landschaft, representatives of the economy, the university of applied sciences (Basel) and the university of Basel, and one representative of employees.
- 24 experts (private and public sector, entrepreneurs and scientists)
- Experts (jury) are anonymous (80 experts are involved, comprising different professions, e.g. entrepreneurs, scientists, venture capitalists)
- Foundation Council and external experts

For six schemes national correspondents mention **two step selections** procedure which involves two different panels:

- A first selection is made by a work group composed of experts in the field. In the second round the selection is made by a jury composed of representatives of universities, large private companies, and industrial association
- Pre selection is made by SME support organisations in the region - for the award 8 are chosen and a jury of large businesses in the region choose the final winner
- 15 members of a judgment committee choose 15 finalists which are then judged by a jury made up of members from the Rabobank, industry, business support organisations, research institutes
- A first selection will be made by a small group from VINNOVA and Ny teknik, the second by a jury with broad competence. The jury selects nominees and finally the winner.
- Shortlisted applications are first judged by three separate Panels of Judges, for the three categories of 'International Trade', 'Innovation', and 'Sustainable Development'. The Prime Minister's Advisory Committee makes the final selection.
- Candidates for DnB NOR's Innovation Award are in the first round assessed by the Award secretariat who nominates 20 semi finalists. They are subsequently assessed and ranked by a jury made up of people from industry, industry and labour organisations and the policy system.

### 2.12.2. Qualitative assessment

Questionnaires do not specify which criteria are used in qualitative assessments.

### 2.12.3. Explicit 'excellence' parameters

Questionnaires do mention a variety of explicit 'excellence' parameters. The most diversified and numerous are the following criteria:

- In which phase the award candidate is in the chain from the idea to market (R&D, commercialized in Finland/somewhere else (where), in which way the award candidate has been commercialized domestically and internationally (e.g. own production, licencing, network). Information on intellectual property rights. Competitive position of the award candidate: why the candidate is better than competitors, competitors and competing products, market conditions. Why the candidate should be awarded: to which problem the award candidate is a solution, in which way the candidate has promoted or may promote business activity, entrepreneurship or access to the market, future plans concerning the award candidate

When business plans are used as basis for assessing excellence than they are evaluated according to the following criteria: firm characteristics, team-building (know-how), product/services, market and competition analysis, marketing and sales strategy. how are products, services manufactured?, organisation and personnel, financial plan, opportunities and risks, realistic time schedule, completeness of the appendix, general impression

Most of the schemes use several criteria of explicit parameters. The following examples illustrate the range of criteria:

- Business success, quality of the business, technological renewal of the innovative product or process, if the innovative product or process led to an solution of a specific problem
- Innovation possibilities of invention, client focus of invention, social benefits of innovation, ecological and economic factors,
- Valuation of Advisory Committee, own R&D Centre and its Technology, percentage of expenses devoted to "ethical" specialities, personnel structure of R&D Department, external co-operation, number of products in development process, R&D investments, Trade and R&D balance, infrastructures and Patents
- Profit in the previous year stemming from a major innovation (introduction of new products, services or processes); original ideas; social impacts
- S&T potential and technical innovativeness, innovative character and commercial potential of the products
- Innovation and patentability; Potential as a platform for future products; Technological complexity; Maturity of development; Team and organisation; Business model; Capital raising; Ability to proceed independently.
- Innovation, Product development, Technological leadership, Job creation, Success through creativity, MBO / Turnaround, Market development / marketing, Entrepreneurial risk. In addition the six finalists are judged by: Presentation & charisma, Creativity & innovative spirit, Foresight, values & vision, Perseverance & resilience
- Novelty, creativity, relevant for society and natural environment, successful market introduction or firm implementation, commercialisation is possible, increase in efficiency, and benefits for the region (Basel).

- Technological development status, originality, market potential, social benefit, degree of elaboration.
- Formal business content (judged by entrepreneurs), financial attractiveness (judged by venture capitalists)
- Innovative, social relevance, to supply a want (degree), technical and financial feasibility, market potential, employment effects.

Only two schemes which use this criteria use single criteria like:

- The degree of technical advance
- Patenting strategy

#### **2.12.4. Ranking**

This criterion has not been specified by correspondents. Presumably, ranking is implicit in all other criteria.

#### **2.12.5. Quantitative assessment**

A range of quantitative assessment criteria is the following:

- Company's economic outlook — industry, ownership base, economic outlook for the current year + forecasts and goals for the two following years (turnover, innovation candidate's share of turnover, export share/turnover, share of product development of turnover). Estimation of the impacts innovation candidate has on employment, number of company employees for the current year + forecasts for the two following years. How many employees the award candidate employs in the company and/or subcontractors.
- R&D expenditure, Number of personnel working in R&D, economic indicators related to innovation (relative share in total sales, relative share in total exports)  
Exports volume
- A scale of innovation from 5 to 1 (e.g. 5 - world, 3 - Europe and 1 - country);  
Export (e.g. 1 - yes, 0 - no), Comparison of parameters of similar products in the world (2 - better, 0 - the same), Offer requests (1 - there are, 0 - there are not),  
An environmental impact (1 - improvement, 0 - no changes), reduction of at least 20% of resources (1 - yes, 0 - no), electric energy (1 - yes, 0 - no); Does the product fulfil the EU norms? (3 - yes, 0 - no). Is there the patent protection for the product? (1 - yes, 0 - no). Are there certifications for the product? (1 - yes, 0 - no). Did the applicant finance the research from the own resources? (2 - yes, 0 - no). Is the product the result of project financed from public resources ( e.g. The State Scientific Committee)? (1 - yes, 0 - no)
- The indicator list has 14 variables and includes assets, profits, turnover, etc.
- Financial calculations of turnover, profit, export & assets. The ratios thus developed give a guide to overall profitability, profit provided by each employee, profitable use of assets and export contributions. Besides financial analyses, aspects related to management, products, innovation and production techniques are also assessed.
- Total development costs, average costs/duration of development projects
- Variety of parameters based on access to 500 electronic databases

### **2.12.6. Peer review assessment**

Peer review assessment is explained in 4 out of 9 schemes which use this mode of assessment. However, examples below illustrate the problem: who are the peers?

- Previous year award winners are participating in the Provincial INNOFINLAND Committees which judge and select the winners of regional contests.
- Council of Academies of Engineering and Technological Sciences (CAETS), European Council of Applied Sciences and Engineering (Euro-CASE), European Science Foundation (ESF), International Council for Science (ICSU), national member academies of science and engineering of the above organisations, founding members of the Finnish Technology Award Foundation.
- Leading Irish business people
- The jury will include persons with technical, medical and natural science background, besides there will also be an analyst with economic background
- Romania ICT Awards represent the recognition by the Romanian ICT industry of significant achievements in the respective year, therefore the decision on the candidates and the winners is made by representatives of the Romanian ICT industry.

It seems that there is a strong overlap between peer assessment and assessment by expert panels. It is quite common that peers are also members of expert panels.

### **2.12.7. Follow up results? (performance of identified leaders)**

It seems that this question was least understood but also that this form of assessment is very rare and in reality probably less frequent mode of assessment than 6 six schemes identified by questionnaires may suggest. Replies from questionnaire illustrate the problem:

- Each year a survey is carried out. The survey targets companies awarded year before plus attendees of the INNOFINLAND events in previous years.
- These (cf. applicants) have better possibilities for other financing programs (e.g. PROFIT ES\_17)
- All companies (innovative products) will be included in a catalogue "Innovative companies in Bulgaria"
- Award winners join the Innovation Club, meeting at least twice a year, and thus can exchange experience
- Study on the development and economic impact of the prize winner (over 20 years
- Promoted business ideas led to 75 start-up companies creating 850 highly qualified jobs until 2003.

### **2.13. Data collection method**

1. Among methods of data collection the most frequent is sending out a questionnaire on paper which is used in 36% of schemes<sup>34</sup>. Visits or audits by experts are also frequent method of data collection and are applied in 32% of cases (table 14).

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<sup>3</sup> Data on collection method are available for 70 schemes.

<sup>4</sup> One scheme may use several methods of data collection.

Probably, in practice this means that direct contact with awarding body is very important.

**Table 14: Data collection method**

Total	100	100.0%
Sending out a questionnaire on paper	36	36.0%
Visits / audits by experts	32	32.0%
Desk research using publicly available company data	18	18.0%
Web based self assessment tool	7	7.0%
Telephone interview	7	7.0%

2. Telephone interviews and web based self assessment tools are far less frequent methods of data collection. Telephone interviews are probably far from sufficient for serious assessment. We believe that web based self assessment tool are inappropriate given the variety of assessment criteria which mix up quantitative and qualitative assessments and expert opinions.

#### 2.14. Availability of data on results

1. Data on availability of results are available for 54 schemes out of 78. Data on results are available in similar proportions in three forms. They are either restricted to benchmarking club or are fully transparent or are transparent on leaders but anonymised on others.
2. Only in seven cases data on participating companies are anonymised (table 15).

**Table 15: Availability of data on results**

Total	54	100.0%
Data restricted to benchmarking club	18	33.3%
Fully transparent data on participating companies	16	29.6%
Transparent data on leaders, anonymised data on others	13	24.1%
Anonymised data on participating companies	7	13.0%

#### 2.15. Use of results by public policy

1. In 70% of cases public policy uses schemes results for large scale publicity.
2. Results are much less used for targeted information or as input for policy (table 16).

**Table 16: Use of results by public policy**

Total	75	100.0%
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Large scale publicity	52	69.3%
Targeted information	14	18.7%
Input for policy	9	12.0%

## Annex I: Innovation Excellence schemes

Innovation Excellence schemes		
	Country	Name
1	Austria	Technokontakte
2	Austria	State Award on Innovation
3	Belgium	ICT Trends Awards
4	Belgium	Fine Food Awards
5	Belgium	Tech-Art prizes
6	Denmark	Danish Design Prize
7	Denmark	Danish Food Forum Innovation Prize
8	Denmark	Federation of Danish Industries' Product Prize
9	Denmark	Technology Incubator Prize
10	Finland	INNOSUOMI
11	Finland	The Millennium Technology Prize
12	France	Cap Innovation Méditerranée - 1er concours régional des jeunes entreprises innovantes
13	France	Concours Cyberry
14	France	Innov'Up
15	France	INPI Innovation awards ('Trophées INPI de l'innovation' FR32)
16	France	Observatory for pedagogical practices in entrepreneurship
17	France	Tremplin Entreprise 2004
18	Germany	DE_32
19	Germany	no TC measure
20	Greece	Awards and financial support to inventors [GR_42]
21	Ireland	The All Island Innovation Awards.
22	Ireland	Altran International Innovation Award.
23	Ireland	Ireland, The Food Island: Food & Drink Industry Awards.
24	Ireland	Software Industry Awards.
25	Ireland	"National Small Business Awards".
26	Ireland	World Class Manufacturing
27	Italy	L'IMPRENDITORE DELL'ANNO
28	Italy	Solidas Social Award
29	Italy	Premio Leonardo Qualità Italia
30	Italy	Premio Well Tech
31	Italy	Campioni d'Impresa
32	Italy	Premio Qualità Italia
33	Italy	Premio Regionale per l'Innovazione
34	Italy	Premio Nazionale per l'Innovazione
35	Luxembourg	Award for Industrial Innovation
36	Netherlands	BEVOS - Company Monitoring System
37	Netherlands	Innovation Award Overijssel
38	Netherlands	EIM innovation barometer

39	Netherlands	Rabobank Herman Wijffels Innovation Award
40	Portugal	DEMTEC (PT 37)
41	Spain	PROFARMA II:
42	Spain	Príncipe Felipe" Awards of business Excelence
43	Sweden	VINN NU
44	Sweden	The Big Technology Price
45	UK	(UK) Queens Award for Enterprise
46	UK	SMART (UK_9, now known as 'Grant for Research & Development')
47	UK	(UK_4) - R&D Scoreboard
48	UK	Manufacturing Advisory Service (UK_63)
49	Bulgaria	IT Innovation Award
50	Bulgaria	National Contest "Innovative Enterprise of the Year"
51	Estonia	EE18
52	Hungary	Innovation Grand Prize
53	Latvia	Competition "Made in Latvia"
54	Latvia	Competition on the best innovative project
55	Lithuania	Quality award
56	Poland	Polish Product of the Future, PL_07
57	Slovakia	Slovak Benchmarkinh and Information Centre & Ekonom-Servis (joint initiative)
58	Slovenia	Entrepreneur of the Year
59	Slovenia	The Manager of the Year
60	Romania	Romanian quality award 'J.M. Juran'
61	Romania	'Best practice, benchmarking and modern industrial management' seminar
62	Romania	Rising stars awards
63	Romania	Romania ICT awards under the patronage of the president of Romania
64	Romania	national software solutions awards
65	Turkey	www.teknoloji.org.tr
66	Iceland	A conference is held in connection with the Prize ( <a href="http://utflutningsrad.is/nyskopun/.htm">http://utflutningsrad.is/nyskopun/.htm</a> )
67	Israel	Best Project In Technological Incubator
68	Israel	Best Telecom Start-up
69	Liechtenstein	Business-Plan competition
70	Norway	DnB NOR's Innovation Award
71	Norway	Abelia Innovation Benchmark
72	Switzerland	Swiss Economic Award
73	Switzerland	Entrepreneur of the Year
74	Switzerland	Innovation prize of both Basel
75	Switzerland	TECTEM (Transfer Centre for Technology Management) Benchmarking-Center, University of St. Gallen
76	Switzerland	TECTEM (Transfer Centre for Technology Management) Benchmarking-Center, University of St. Gallen
77	Switzerland	Venture 2004
78	Switzerland	W.A. de Vigier Foundation