

Innovation vouchers

Innovation vouchers are small lines of credit provided by governments to small and medium-sized enterprises (SMEs) to purchase services from public knowledge providers with a view to introducing innovations (new products, processes or services) in their business operations

Target and purpose

Innovation vouchers normally target SMEs in light of the contribution (normally below EUR 10 000) they provide for the introduction of small-scale innovations at the firm level. SMEs tend to have limited exposure to public knowledge providers such as universities and research organisations as they may see such institutions as irrelevant to their business activities or be unwilling to invest in the search costs necessary to identify relevant providers. On the other hand, staff in public knowledge providers may see little incentives in working with small firms when the latter have lower absorptive capacity and guarantee lower returns as compared to large companies and other public agencies.

The main purpose of an innovation voucher is to build new relationships between SMEs and public research institutions which will: *i*) stimulate knowledge transfer directly; *ii*) act as a catalyst for the formation of longer-term more in-depth relationships. In a snapshot, innovation vouchers are intended as pump-priming funding through which initial industry-university relationships can be established.

The issuing of the voucher has two main impacts, both of which overcome major incentive barriers to the usual engagement between SMEs and knowledge providers. First, the voucher empowers the SME to approach knowledge providers with their innovation-related problems, something that they might not have done in the absence of such an incentive. Secondly, the voucher provides an incentive for the public knowledge provider to work with SMEs when their tendency might either have been to work with larger firms or to have no industry engagement at all.





Practice

Voucher schemes can differ on several technical details, but the traditional steps of implementation are as follows:

- First, the availability of vouchers is advertised widely in the press and through the
 internet. In particular, representative associations, trade bodies and chambers of
 commerce can be actively involved in the promotion of the instrument by asking them to
 inform their members about the existence of the policy tool (i.e. network-based
 marketing).
- Second, SMEs are requested to submit an application, which should possibly be
 electronic to keep the application process and the overall management of the
 programme as simple as possible. The application should contain eligibility criteria (see
 below) and ask firms to provide a description of the problem they would like to solve.
 The problem should be very practical in nature, in the sense that firms should be able to
 use the acquired knowledge to cope with a minor technological issue or set out possible
 solutions for a more complex problem (i.e. consulting).
- Third, vouchers are awarded by the government agency delivering the programme.
 Specific selection criteria should be set out beforehand in the case that the number of applications is higher than that of vouchers available. A simple lottery has also been used in similar schemes to determine the winners of the voucher.
- Fourth, once the SME has been allocated an innovation voucher, it formulates a completed research question and commissions through the voucher a public knowledge institution to solve the question.
- Fifth, there is generally a time limit (6-12 months) by which a voucher must be used. When the assignment is completed the knowledge provider receives the voucher by the firm and redeems it at the delivery agency.
- Sixth, reporting requirements by the firm and the knowledge provider about the use and impact of the voucher can be set, but they should be kept minimal consistently with the "light touch" management of a programme which gives small-scale funding.

An important aspect of implementation concerns the eligibility criteria that applicant firms should meet. They should be simple and straightforward, some of the most common being as follows:

- The firm is registered in the country or region which implements the scheme and is not subject to a suspension of payments for protection against creditors.
- The firm abides by the national (EU in the case of Europe) definition of SME.
- The firm has not received more than a certain amount of public aid over a defined period of time (e.g. in the EU, this tends to correspond to the state aid de minimum statement).
- The firm has not entered in any commitments, prior to receiving the voucher, with the knowledge provider that will carry out the project. This has the clear objective of increasing the additionality of the measure.



Finally, there are a number of other options that the delivery agency may want to consider in the design and implementation of the scheme:

- When the value of the work commissioned by the firm is greater than the value of the voucher, the firm should be required to pay the difference in cost.
- As a rule, the pooling of innovation vouchers is allowed by the delivery agency to foster co-operation among firms on larger innovation projects.
- The set-up of different types of voucher has also been common in the past. For instance, small vouchers (*e.g.* less than EUR 5 000) can be granted mainly for consulting services, while larger vouchers (up to EUR 10 000) can be given to introduce small concrete innovations or improvements in the production process.
- The introduction of a "matching fund" requirement needs to be weighed. On the one hand, it will screen out those firms which are less committed to introducing innovations in their business operations and concentrate resources on those more willing to share the costs of the innovation. On the other hand, it may more easily bring about deadweight effects if the selected firms would have commissioned the project also without public support.
- A list of knowledge providers who have agreed to be part of the scheme can be supplied
 with the application form (e.g. universities, polytechnics, technology offices, etc.). This
 will facilitate the match between the demands of SMEs and the competences and
 expertise of knowledge providers. Some specific schemes have also included private
 knowledge providers, including R&D laboratories of large companies, among the partner
 organisations.
- Innovation vouchers have tended to focus on a narrowly-defined definition of technological innovation. However, governments adopting the scheme may ponder the inclusion of other forms of innovation (*e.g.* organisational, marketing, management, etc.) among those supported by the measure.
- Finally, VAT is normally charged by the knowledge institution on the services provided and is included within the price of the voucher, which reduces its actual value.





Appropriateness and feasibility

The wide recourse to innovation vouchers (*e.g.* The Netherlands, Ireland, West Midlands in the UK, etc.) demonstrates that, thanks to its simplicity, the measure can be easily adopted by countries and regions worldwide, provided that small firms have a minimum "absorptive capacity" towards university research and that universities and public research institutions are willing to co-operate with industry.

Innovation vouchers are traditionally used to solve minor technological problems or scope out larger technological issues. As such, they are useful instruments but need to be integrated into a wider innovation strategy in which voucher recipients can refer to other policies for further stages of business innovation. Examples include collaborative research programmes, incentives for internal R&D, clusters and networks for innovation, etc.

Limited evaluation evidence suggests that output additionality for this measure is high, *i.e.* a large share of firms that are granted vouchers would not have undertaken the project without public support. However, the impact on longer-term SME-university collaboration is more limited and questionable. On their own, innovation vouchers appear too small a tool to change the embedded attitude of SMEs towards research organisations.

A few conditions make this tool more feasible and likely to succeed. First of all, the voucher should be directly administrated by a public agency, whereas there are some cases in which it was also managed directly by a university. Whilst this causes more costs for the public sector, it presents three main advantages: *i*) it avoids any potential conflict of interest between the university as scheme operator and as knowledge provider; *ii*) it may allow a more dedicated approach to the operation of the scheme than the wider mission of a university may permit; *iii*) there may be greater scope for follow-through with other supports for innovation if the scheme is administered by a development agency.

Secondly, brokering is crucial to the feasibility of the programme. There is a need both to minimise the application burden on firms and to provide cost-effective matching to appropriate academic expertise. For instance, too much an arm's length approach by the delivery agency may lead to difficulties for firms in finding appropriate academic partners and for knowledge providers in responding to a relatively high volume of unco-ordinated enquiries. Developing an enhanced brokerage service is crucial to the effectiveness and popularity of the programme by enabling firms to more quickly identify possible partners and reducing the load on knowledge providers.



Success factors

The main success factors of innovation vouchers can be summarised as follows:

- Simplicity and "light-touch" administration: given the small "lump sum" nature of an innovation voucher, its administration and implementation should be kept as simple as possible, from the application process to the selection of the beneficiaries to the reporting requirements once the voucher has been used.
- Effective advertising and promotion: considering that the tool aims to overcome an information barrier between SMEs and knowledge institutions, it is important that the tool be advertised widely in the press and through the internet (*i.e.* network-based marketing).
- Organisational commitment by universities: universities, the main public research organisations, need to be involved and persuaded to be an active partner of the scheme.
 For instance, prior to the launch of the programme, universities could be asked to manifest their interest to be listed as potential knowledge providers.
- Clear ideas by firms on how to use the vouchers: Applications should be simple and yet enable firms to detail the intended use of the voucher. This will facilitate the match of the SME with the appropriate knowledge institution.
- Efficient brokering: Brokerage of the scheme is best performed by a public agency, which will have dedicated staff to the management of the programme and will be in a position to link up the voucher scheme with other innovation policies at the national and local levels.

Risk factors

- Short-term effects: The most serious concern is that vouchers only facilitate one-off and subsidised industry-university co-operation, leaving unaltered the long-term attitude of SMEs towards R&D and innovation. However, it is unclear whether this corresponds to a real general pattern or is rather linked to the pattern of innovation activity in smaller firms which tends to be relatively spasmodic. If so, the impact of a voucher on SMEs' further engagement with universities can only be measured in the very long term.
- Technology lock-ins: if the scheme provides for the knowledge institution to be from the same country or region of the firm, this can limit the search patterns of SMEs and its ability to find an effective solution to its technological problems.
- University as the delivery agency: In some experiences (e.g. West Midlands, UK), the
 brokering role has been assigned to a specific university. However, this practice is likely
 to cause potential conflicts of interest and be too heavy a burden on the university
 management. Experience suggests that public agencies are best suited for the brokering
 role that a voucher scheme requires.



Evaluation

The impact of innovation vouchers can be evaluated through ex-post surveys aimed at assessing the short- and long-term behaviour of the voucher's recipients. In particular, two types of additionality are important to measure: output additionality and behavioural additionality. The first refers to whether or not the assignment for which the voucher was given would have been carried out also without public support. The second refers to whether or not the vouchers' recipients have further contracted public research organisations for follow-up assignments paid through other means (e.g. retained savings or other public funds).

A control-group methodology is best suited for assessing the effectiveness of the tool with regard to its ability to trigger both short- and long-run industry-university collaborations, to have an impact on concrete innovation outputs, and to improve the perception of firms toward university research.





Further resources

Cornet, M., B. Vroomen and M. van der Steeg (2006), "Do Innovation Vouchers Help SMEs to Cross the Bridge towards Science"? in *CBP Discussion Paper No. 58*, Netherlands Bureau for Economic Policy Analysis, The Hague.

www.cpb.nl/eng/pub/cpbreeksen/discussie/58/

OECD (2008), A Review of Local Economic and Employment Development Policy Approaches in OECD countries, OECD LEED Programme, Paris.

www.oecd.org/document/17/0,3343,en 2649 34417 42750737 1 1 1 1,00.html

Roper, S., J.H. Love, P. Cooke and N. Clifton (2005), The Scottish Innovation Systems: Actors, Roles and Actions: Report for the Scottish Executive.

www.scotland.gov.uk/Resource/Doc/89713/0021562.pdf

Internet resources

Dutch Index Vouchers Scheme: www.senternovem.nl/innovatievouchers

Irish Innovation Vouchers Scheme: www.enterprise-ireland.com/innovationvouchers

West Midlands Innovation Vouchers Scheme: www.indexvouchers.org/new/

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