

Science from one-way to two-way communication

Knowledge dissemination through listening

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Abstract

The government in the Netherlands sincerely believes in investigating in innovation. It has created a structure of nine themes (top sectors) with potential for economic growth. As the Netherlands is the second largest exporter of agricultural and food products two themes have been identified in this field of agriculture and food. Worldwide, Wageningen University & Research centre is one of the leading institutes in these topics .

Annually, the ministry of Economic Affairs invests over 140 million euros in research at Wageningen UR, resulting in more than 1000 projects each year. As the funds are public money, Wageningen UR is obliged to publish all research projects and results. For this purpose it has created a website (www.kennisonline.nl), which receives 50.000 unique visitors. A digital newsletter, a printed magazine and social media complete the communication mix of KennisOnline. Since 2013 videos replace the magazine, creating a younger, diversified, more international and extended audience.

Despite these efforts the communication remains one way, researchers perform the research and provide the results online to the public. A few research groups on specific research topics however succeeded in more interactive ways of communication. One such group was active on research in organic agriculture. Their research was coordinated in close collaboration with the farmers and industry and therefore demand driven. The research results were as such more targeted as they answered questions from the target audience itself. As such the results were also provided in ways that really answered the needs and habits of the audience. A website for background information, factsheets for practical information and meetings to discuss the results, answer specific questions and ask new ones. The programme receives high marks on recognition and user friendliness, confirming the thought that two-way communication is more effective than one-way communication.

When you talk, you are only repeating what you already know
But if you listen, you may learn something new

Dalai Lama

Communicating science

Every day researchers gain new insight. Sharing these scientific results with other people outside the scientific domain is the task of science communication. Although not new as an expertise it is gaining new interest. Funding agencies require more and more that the scientific community shows the impact of the research, how it is supporting the economy or society with the gained new insights.

In the Netherlands this request for impact (or valorisation as it is called) applies to all research funded with public means. In addition the European Commission with its Horizon 2020 framework requires a prove of the impact resulting from the research.

Wageningen UR (University & Research centre) is working closely together with the Dutch (and European) government agencies and business in the so called golden triangle. Recently a fourth force, the society, is demanding (and receiving) more attention, making the golden triangle a tetrahedron, or as it is called the Dutch diamond.

Yearly, Wageningen UR programmes over 1,000 projects based on public funding. And for each project the funding agency demands impact, either for the economy, the society or both. Most of the projects produce reports with their research findings and numerous other channels are used to reach targeted audiences; like articles in targeted magazines, demonstrations, presentations, and more and more digital media like internet and social media.

The website www.wageningenur.nl/kennisonline contains more than 6,000 projects. Each project is not only described, but also all outputs like articles, reports, posters, and presentations are made available to the public. The number of visitors of the pages however has been limited. Therefore communication specialists have been looking for ways to open up the available information to the audience. One of the most successful mechanisms has been story



Wageningen University & Research centre

- 1 university
- 9 research institutes
- 5.000 researchers
- 10.000 students
- 120 nationalities
- #1 in agriculture, forestry (OS, NTU)

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telling.

Story telling

Story telling is an art that people have been using for many centuries. It is one of the oldest forms of communication. The biggest advantage of a good story is that it is being transferred further; people who heard the story and find it a good story will repeat it and tell it to others. As such the story extends the effect.

A good story is not easily created. A good successful story has a number of aspects. Heath & Heath² describe this as the sticky factor; a sticky story is likely to be remembered and to be told again.

To create a sticky story it has to be a;

- Simple,
- Unexpected,
- Concrete,
- Credible, and
- Emotional,
- Story.

The story can be provided in many different ways. With Wageningen UR the most commonly used forms of storytelling media are; infographics, video/animation, and blogs.

Impact

Although story telling helps to increase the number of reached audience, and stories are repeated (often by other media), it is still not considered a significant contribution to impact. For true impact the message has to put into action. How can scientists and their communication experts turn their message into action? There are two approaches; a reputation approach and a relation approach.

The reputation approach (reputation management) has 5 factors to be taken into account: visibility, distinction, authenticity, transparency, and continuity.

Relation management is more about influence, target audience, and demand articulation.

For both approaches influence is a goal. For influence other factors are important like reciprocity, trustworthiness, and ability to listen.

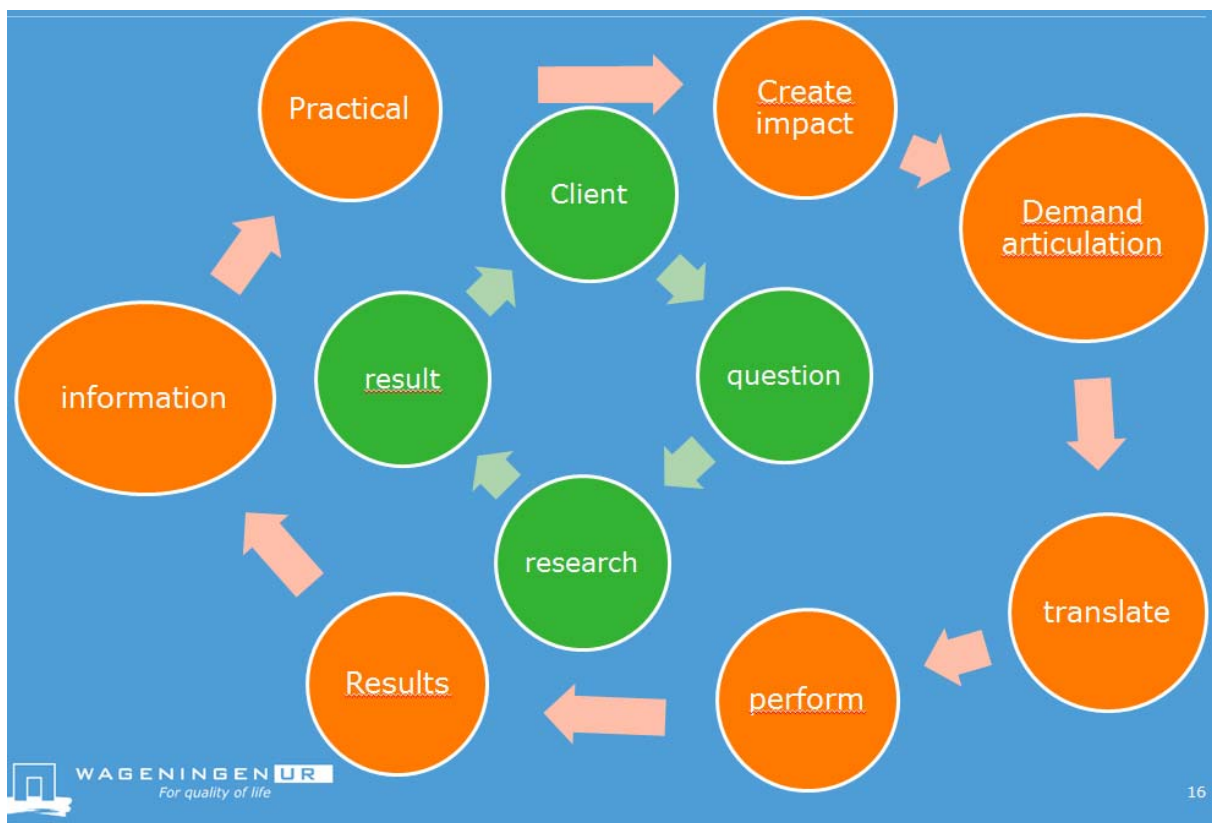


Figure 1. Presentation of the research cycle

In figure 1 the research cycle is represented. A client poses a question, which the researchers translate into a research proposal providing results which are given back to the client (the green cycle). The orange circle shows the processes of the new research cycle. The client asks to create impact. Therefore you need to know which impact is required. Demand articulation becomes a central process in

² Heath, C & Heath, D. (2007) made to stick. Why some ideas survive and other die. Random House.

the research. This is translated into research questions in close consultation with the client. When the research is performed, the research results are translated into information which is incorporated into practice.

Demand articulation is now becoming a central process in the research cycle. Therefore listening (to target audiences) is becoming a crucial process. If you provide a story on subjects on which the target audience is currently not interested, much of the energy is wasted. The target audience won't respond. However, if you provide information on something that's really in their core business, you are likely to receive high response.

Example: Biokennis

BioKennis is a large programme with a vast array of projects varying from fundamental projects in soil ecology to very practical projects in horticulture, agriculture and livestock management. All these projects had one common ground, they are targeted at organic agriculture. BioKennis stands for organic knowledge in Dutch.

There is one other common ground for all projects, they are not planned for by scientists (so called science driven) but are responses to the questions from the field. Organic farmers are part of programme committees together with representatives from government, business from the agricultural chain and researchers. Together they decide on a research programme with priorities matching the available budget and matching not only on the social basis of the sector, but also on the ambition agenda for the long term.

For research communication it is much more easy as the research results can be translated back to the questions posed. The target audience is much more interested as the results provide answers to the problems they mentioned. The story is easily passed on as the agricultural entrepreneurs are well trusted by their colleagues.

The biggest challenge is timing as questions are often posed when the farmers are in need of an solution or innovation, but research is most of the times not able to provide new solutions overnight. So if the question is on harvesting it is important to time the answers in due time for the harvest, so the farmers can incorporate it in time.

With the extensive demand articulation the bioKennis programme is a good example of a research programme where listening in an early stage enables researchers to reach real impact.

The bioKennis programme has a recognition of 97% among its target audience, agricultural production has doubled and government raised additional money for research on organic agriculture. Unfortunately due to other factors the programme has been in a static phase for some years, and only recently has been able to start new research programmes.

Final remark

The research programme bioKennis was ahead of its time. In 2012 the Dutch government initiated the Topsectoren (topsectors) in which government, business and research are collaborating on research programmes, in which the questions of the industry partners are leading. To be able to provide innovative solutions, research has not only to invest in the current questions, but also has to invest in research for the longer term, for the innovative solution in 4 to 5 years. This balance is important to keep, but is also very sensitive. Another important aspect is the societal needs that need to be incorporated in the research programmes. Research programmes require flexibility to adapt to a changing world and with that flexible representatives from research, government, business and society.