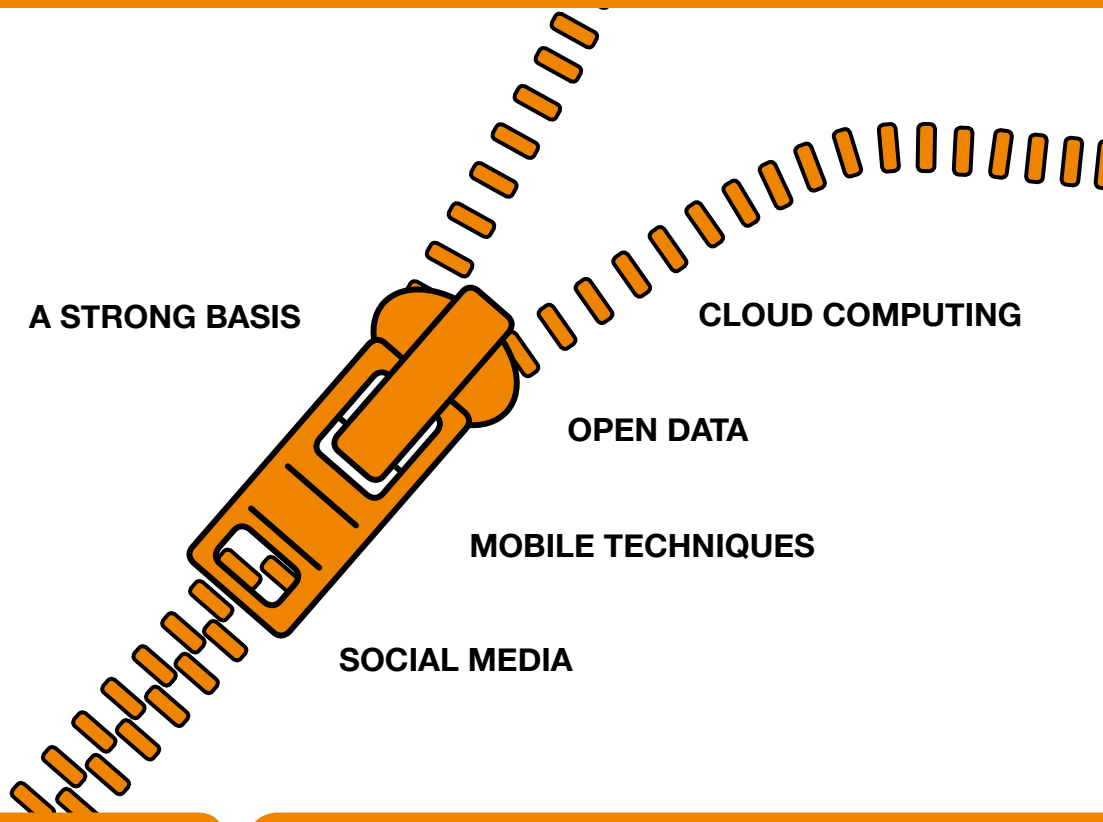
New media, opportunities for service provision and interaction



In dialogue with *Answer*©

Gemeente Alphen aan den Rijn

CIBG Ministerie van Volksgezondheid, Welzijn en Sport

Amersfoort

Topkring Dienstverlening Gemeenten

APPSTERDAM

Gemeente Nijmegen

ORDINA

OptiComm

Nederlandse Vereniging voor Burgerzaken

Verbeterdebuurt

VDP Vereniging Directeuren Publieksdiensten

DeLimes

NOV Nederland Open in Verbinding

UWV werken aan perspectief WERKbedrijf

BuitenBeter

nclude

M&I/Partners/ adviseurs voor management en informatie

KING Kwaliteits Instituut Nederlandse Gemeenten

Drachten Smallingerland

waag society

EuroCloud Netherlands

expertise centrum

we-Government.nl

Werkgroep Antwoord©

Servicecentrum Drechtsteden

gemeente Peel en Maas

Digital groep

Gemeente Rotterdam

HowAboutYou

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

OPENINGUP

The Interreg IVB North Sea Region Programme

New media, opportunities for service provision and interaction

In dialogue with Answer© (Antwoord©)

Topkring Dienstverlening Gemeenten

Werkgroep *Antwoord*©

October 2011
Unless otherwise noted the information in this publication is not subject to copyright. For exceptions see additional information at a text, photo or illustration. In case you decide to use information from this publication citing of source will be appreciated (New media, opportunities for service provision and interaction. In dialogue with Answer©, October 2011).

This publication can be downloaded and ordered (as pdf or e-book) via
www.kinggemeenten.nl/met-antwoord-in-dialoog.
Join in the discussion via #metantwoordindialoog.

Preface

As I am often considered conservative in my views, it may surprise some people to see me as an advocate of technological innovations. That, however, is beside the point. None of us can ignore the applications of new techniques. In many ways they have made our lives simpler, more secure and easier. That is why innovation is a continuous process.

Innovations are not a new phenomenon. Some people enthusiastically embrace their benefits. Others hang back and watch. Active citizens, creative companies and the government itself use innovations to their advantage. The government can carry out its tasks in a direct relation with citizens and companies and they can cut expenses. An example of this is the *Verbeterdebuurt-app* (*Improveyourneighbourhood-app*). It enables people to report a broken streetlight or a crack in the pavement via their mobile phone. The municipality can report repairs in return.

The opportunities created in this way are already being implemented for innovative service provision. The introduction and realization of a new infrastructure – the program i-NUP- constitutes a solid and safe base for further improvement of service provision. Right now this is in full swing. This basic infra-structure enables the government to share information and use it in all kinds of new applications, no matter where or when.

People change and so do the techniques they use. What effect will it have when a majority of citizens mainly use their mobile phones to access the internet? Does a tweet about illegally dumped waste call for the same response as an e-mail? And if applications to improve the services provided by the government are being created all the time, why don't we give these creative spirits access to our data?

In this process people expect different things from the government. Its role shifts from regulating to participating, supporting and managing. There is an increasing tendency in the government to follow developments in society rather than initiate them.

This booklet is the product of innovative cooperation. This cooperation can best be described as a swarm: a diverse group of people has contributed to this project. They originate from the government as well as the business community: the Dutch Association of Civil Services, the Association of Directors of Public Services, the Ministry of the Interior and Kingdom Relations, the Municipality of Rotterdam and many others. They formed a swarm at the beginning of the summer of 2011 and after the production of this booklet they went their separate ways.

This booklet is meant to inspire all of you to better understand the developments in technique and society and to support you in working with them. This should not prevent you from first finishing the developments already in progress, such as your activities for i-NUP or the service provision concept Answer©. They are the basis for what is still to come. They complement each other.

The Minister of the Interior and Kingdom Relations,

J.P.H. Donner

Changing behaviour in society

Is the government ready for dialogue?

Communication has undergone a rapid transformation in recent years. New technologies make communication quicker and more transparent. People can determine where, when, how and with whom they make contact. Watching *The Voice of Holland* on our TVs, we have our Ipad at hand to share our uncompromising views via Facebook and Twitter. Travelling by train we use our smartphone to switch from e-mail and agenda to weather forecast and our bank-account. In the workplace we Yammer from project plan to tender and we manage our personal development via LinkedIn. No event, congress or project starts without #. Our behaviour is changing! Social networks have an impact on our thoughts and actions. We expect a certain freedom in our contacts with the outside world, including the government.

Can the government live up to these expectations and handle them in the right way? And how does this affect the relation between government and citizens? Between government and society? Is a digital social freeway the means to bridge the gap between government and society? With two-way traffic, via dialogue?

In this publication we will explain how the government can make clever use of pattern changes in social behaviour and how application of new media can create opportunities for both government and society. To increase confidence in the government for instance, but also to meet the demand for greater flexibility and compactness. These chapters are meant to inspire the reader to acquire a better understanding of the new technological and social developments and start working with them. Benefit from these chances for innovative service provision to speed up development processes already in progress, such as Answer© and i-NUP and make them sustainable for the future. The change in social behaviour is an undercurrent requiring more than better service at lower costs. This undercurrent deals with transparency and cooperation in society. Then undercurrent becomes main stream: confidence and connection as new dimensions in addition to the expertise of e-Government.

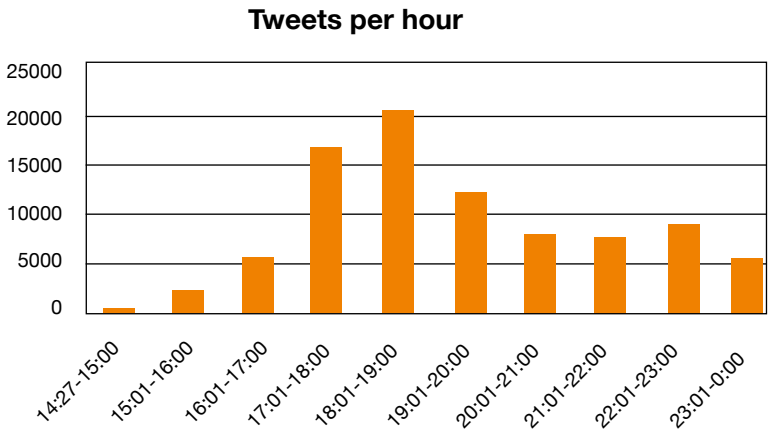
This publication aims at both civil servants and managers who want to improve service provision as well their organization's operations. Our target group, as in previous Answer© publications, is the local government (the municipalities), but other government organisations will find it easy to adjust our advice to suite their own needs.

Before giving a practical explanation of the application of new media, we will first explain - in chapter 1 - how the changing behaviour in society affects the relation and the division of roles between (local) government and the community. Then – in chapter 2- we will elaborate on the transition process to get a grip on all the new developments and their significance for the role of the local government in the community. We will then discuss the value of and necessity for the use of social networks, mobile technologies, open data and cloud computing. We end up with the advice to top civil servants and administrators to start experimenting with this new definition of roles and the introduction of new media.

The appendix contains a comprehensive list of terms.

Social media and crisis communication: chemical disaster Moerdijk

On 5 January 2011 a massive fire broke out at the chemicals packaging plant Chemie-Pack in the dock- and industrial estate Moerdijk. Large amounts of chemical substances were released into the air and towering plumes of smoke clouded over the estate and neighbouring residential areas. A number of people were admitted to hospital suffering from respiratory complaints.
At 14:27 the first tweet about the disaster was sent. In the three days following the disaster there was an average of 2000 tweets per hour about the alarm and sirens. Between January 5 and 8 the number had risen to 118,000. On the day of the disaster more than 20,000 tweeds per hour were registered. The peak moments in online communication on Twitter seem to be connected to broadcasts on the regular media (tv and radio). During an extra news programme at 17.00 the number of tweets rose to 20,000. Regular media often made mention of the use of social media by the people living in the vicinity. The areas around Moerdijk and all those that were affected by the smoke produced most of the tweets. Here inhabitants also posted photos together with a geo-tag (giving coordinates of the location).



Picture 1. Number of tweets per hour during the fire in Moerdijk on 5 January 2011.

During the fire sometimes tweets and YouTube films were posted with incorrect or incomplete information. The local government did nothing to correct this and did not use Twitter very frequently. They made use of Cwerkplaats, Crisisned20, Firebrigadeforum, info from people living in the vicinity and some news sources. The head of communications of the municipality of Breda, Ad Baijens admitted in a news program on TV that the disaster shows that social media proved to be far more effective than the traditional ones. This made it also a communication disaster.

(Source: M. Muijsert/K. Sterenborg, Ordina Consulting, 16 February 2011)

Facts about mobile devices

- At the end of December 2010 there were 3,3 million smartphones in the Netherlands.
- 64% of the owners of smartphones use it as their primary connection with the internet.
- At the end of December 2010 there were 350,000 tablet computers (mostly iPad) in the Netherlands. 80% of the tweets are sent via a mobile device.
- Gartner and IDC (International Data Corporation) predict that in 2 to 4 years' time the development of mobile technology will result in half of all data exchange taking place via mobile devices.

(Source: presentations on Slideshare and videos from 2011 on Youtube, under: social media)

What about @Bertburger1?

Let's have a look at how Bert Burger (Charlie Citizen) is coping, as we did in the red booklet: *Answer*©, published in 2007. What role does the local government of the future play in his life and vice versa?

Bert collects his new driving license
End 2012. Bert receives a message from the municipality via Whatsapp: "Dear Mr Burger, your driving license can be picked up at the city hall". Via the mobile app 'No queues' Bert sees that there are no people waiting at the front desk at the moment. Not only does the Customer Contact Centre give information on waiting times, he also gets information on the available parking space and traffic diversions.

Shortly afterwards Bert parks his car in one of the ten available parking spaces. Exiting the parking lot he sees a large board announcing 'Here the municipality is building for you' with a QR-code. He aims his smartphone at the code and gets access to an augmented reality app, which shows him a number of designs for the new municipal building. Bert may vote online for the design that he prefers.

He then enters the city hall and is served without delay. He pays his new license with Google Wallet. Nearfield communication – also on his smartphone - links this transaction to the municipal cash system. Less than five minutes later Bert walks out with his new license. He then checks his app. 'No queues' and sees that the hairdresser has time for him right now.

Bert is freelancer (in Dutch: ZZPer=self-employed without employees)
After being made redundant as HRM-Manager in the dock industry Bert has started to work as a freelancer. The municipality has asked him to counsel unemployed highly

trained professionals in finding a new job. At first Bert feared that he was going to miss contact with colleagues. So far this fear has proven unfounded. Via social media he remains in contact with other freelancers. He takes part in discussions on the LinkedIn platform 'Independent Entrepreneurs' and with the group 'Freelance Assignments'. His active participation had led to a number of assignments already.

Today he is meeting fellow freelancer Peter at 12 noon. They want to tender for a re-integration contract of the municipality. Their meeting is going to take place in Seats2Meet on the A2 motorway. Before that, Bert is to meet Madge. During breakfast at home Bert has already checked who will be working at Seats2Meet today. The tags 'matching' and 'dialogue' of @madge caught his eye. An appointment was quickly arranged via Twitter and what a pleasant meeting it turned out to be! Together they brainstormed about the best way to support the municipality with re-integration issues. This will be helpful when he draws up his tender. He stores all the material in Dropbox, so that he will be able to continue working on it later on, from the 'cloud' and together with Peter via his laptop and tablet.

After his meeting with Peter, Bert prepares a webinar for tonight, to be presented to one of the groups that he is coaching. In this online seminar he is going to illustrate how to profile yourself effectively via social media such as LinkedIn. He is content to see his group of unemployed professionals showing more and more initiatives. Last month e.g. they formed an application club and they give feedback on each other's CV's and LinkedIn profiles. Three out of a group of ten have found a job within two months.

Before Bert returns home he checks Twitter: 'Careful, speed check on the A2 near exit 58', says a tweet of the KLPD (National Police Services). Bert was not planning to drive fast anyway.

Bert is involved with his neighbourhood
Bert has recently moved to a new neighbourhood. For a few months he has had a page on Hyves now, where he comments on his new surroundings. By now he has acquired more than 300 followers and has found the neighbourhood to be as multicultural and lively as Funda (Dutch association of estate agents) had described it. With the app 'Wizard of Woz' he found out the asking price for the house and compared it to its WOZ-value (the municipal assessment of the value of private real estate). Thanks to this information he managed to buy the house at a considerably lower price than was originally asked.

A few months ago he put an item on Hyves about redesigning the small local park. This triggered a heated discussion. Bert set up an online poll and a large majority voted in favour of installing a climbing frame for younger children and two small benches for elderly people. The municipal webcare-team found out about this initiative and informed the department for City and Environment. After discussing things with one of the aldermen the local government decided to support this neighbourhood-initiative and contacted Bert, offering to supply the climbing frame and the benches. The local DIY provided free tools, grass sods and plants. Via Twitter @bertburger1, with #pimpupthepark, 23 residents had offered their help. It took ***one*** day for the park to be redesigned.

The park has now been officially opened and a neighbourhood barbecue is being organized. Bert and his next door neighbour are content with the result. Then their conversa-

tion turns to the real-estate tax form that arrived 3 weeks ago. The neighbour is wondering if it would be a good idea to file an official objection. They consult the app ‘Wizard of WOZ’, which not only informs them of the WOZ-value of their houses, but also of the success rate of an objection. A good thing that the local government made these data available. Unfortunately it does not look as if filing an objection is going to get them anywhere!

1. The relation between society and local government is changing

The examples from Bert's life are an illustration of how new media can be applied in the relation between society and local government. But what does that mean for this relation and the division of roles? How does this fit in with the present situation in the municipalities? Before we answer these questions, we will first elaborate on the context and the characteristics of the transition in which the local government finds itself today.

1.1 The local government is confronted with ever more challenges

Organisational developments in the local government are more numerous than ever. Central government cuts force municipalities to make choices. On the one hand they have an obligation towards the most vulnerable in society, on the other hand they are expected to encourage their citizens 'to take responsibility for their own actions'. At the same time confidence in cooperation with the government is at an all time low. The I-government is responsible for security and the protection of data, whereas society and the business-community want greater transparency (open data). For municipalities and other government organisations cooperation is not only convenient, it is becoming a necessity. Re-inventing the wheel is less and less popular and sometimes it is not even possible any more. The need to cut costs creates opportunities for cooperation. More tasks increase the workload of the local government. 'Het Nieuwe Werken' (the new way of working) calls for different management and opens the door for the recruitment of a new kind of civil servant (the population is aging!). At the same time the local government is creating a strong basis with programs such as Answer© and iNUP. Better service provision is getting sounder foundations, but at the same time local governments are in a split: a compact government which must keep modernising.

1.2 Society rapidly and briefly organizes itself around an issue

Familiar structures such as unions, associations and organisations are less coherent nowadays. This leads to fragmentation of the social centerfield.The arrival of social media has created alternative ways for people to come together. They have begun to group or swarm around a certain issue. The composition of such group changes all the time, as does its style and tone. The members determine where and when they communicate: on Hyves today, on Facebook tomorrow!

There is a growing impact of civic initiatives. One person's idea spreads quickly through his whole network. He expects the local government to pick up his signals, especially now that social media can facilitate contact. Organisations such as Wehkamp, KLM, UWV and UPC are already providing their services via social media. The local government, too, is expected to listen, enter the dialogue and participate via social media. Reaction becomes interaction, sending becomes dialogue, citizen participation becomes government participation! There is sympathy for the government's role as democratic representative with legislative duties and roles. Citizens are more involved and better informed by sharing information.

The assertive citizen feels positive about co-creation and crowdsourcing initiatives involving the government. Closer to home the website www.improveyourneighbourhood.nl successfully collects ideas of citizens for the improvement of their environment. In Estland 50,000 people cleaned up the whole country in a couple of hours, thanks to social networks and Google Maps. It started as an idea of a small group of people and led to an enormous communication campaign, to which everybody contributed and which did not cost anything.

Google Maps traced down the locations of unattended waste, so everybody knew where to go. 8% of the country's inhabitants achieved something that would have taken the government three years. The idea has been picked up by other countries. Other examples are the Arabic countries, where social media have speeded up a regime change. Inhabitants of Iceland have written their own constitution. These are examples of issues that until now have always been the government's responsibility, but which are now tackled via civil initiatives. And this is done in a quicker and more effective way.

Illustrations of transition

Changing behaviour in society has the characteristics of a transition. The final goal of that transition is not clear. Images are taking shape. In the summing up below you find movements already in progress within this transition, illustrated by examples in this publication. This summing up is meant to order situations and examples from 'real life'. Not to give an opinion, but to make you more aware of the process. To get 'a role in the film' and be able to play it.
The movements that we are all part of:

- From industrial to information society.
  - From structures to networks of informal floating groups.
  - From 'I am a part of' to 'I belong' to 'I am'.
  - From hierarchical structure to structure per topic.
  - From central to location-bound information.
- From material prosperity to immaterial well-being.
  - From being owned to being available.
- From representation to participation.

At the same time society has a different appreciation of the outcome of the process:

- From range to impact.
- From output to outcome.
- From focus on functionality to focus on use and application.
- From creating a demand to produce to producing a demand.
- From interaction about product to interaction about demand.
- From returning to the old system to the building of better systems.

Illustrations of transition

The approach to reach that goal is organic and based on letting go.

- From planned to spontaneous.
- From protocols to rules of the game.
- From 'you vote, we govern' to participation.
- From product/process -oriented to chain and network-oriented.
- From strictly managed to organic development.
- From complex structure to swarms of simple structures.
- From control to trust.
- From waiting for the right solutions from the government to solutions based on the market.
- From one too many to many too many.
- From informing to involving.
- From doing to participating.
- From one-time management to frequent use.
- From creating an interest to being interested.

(Source: various workshops for this publication)

The same trend can be seen within organisations. Staff-members in an organisation often have a bigger and quicker to mobilise network than the managers. The management team has access to only one layer, whereas staff-members can reach three to five-hundred followers! They can then activate them via crowdsourcing and thus achieve more with less effort. The hierarchical structure is breaking down and this development may well be vital in the changing position of the local government in society.

1.3 Time for major change?

The local government faces a new beginning. Does that mean a totally different approach? Do we have to formulate new visions and re-design programs?

A strong basis is still the foundation.
One has to realise that their nature and size prevents municipal organisations from being frontrunners in the case of new developments. The challenge lies in seeing change as a constant factor. Follow, go with the flow and make use of the new developments wherever possible. This calls for a powerful vision and a strong basis. Make sure that this basis needs constant maintenance. It consists of Answer© and Operation NUP, basic registrations, case-oriented working and open standards. These are essential for the dialogue on social media and the release of open data. Pre-conditions for the introduction of mobile technologies are standards in architecture and data traffic. Together they form the basis for entering the dialogue. Local governments with a strong basis are better able to introduce and fully implement the new media.

*Role, organisation and service provision **do** change*
The following model has been derived from a model of Twente University. It helps us to better understand the consequences. It shows that the relation citizen-government

is closely connected to the role of the government. That role determines the organisation of the government and results in practical achievement: service provision. Changing behaviour in society also leads to a change in the relation citizen-government and the role of the government. The ultimate aim of the government is transparency and connection. The outcome of these changing roles cannot be precisely predicted. In chapter 2.2 we will discuss these changing roles. In subsequent chapters we will supply the ingredients to work this out for your own organisation.

Picture 2. If the relation between government and citizens changes, the role of the government changes as well and so does the organisation and service provision.

New means are 'only' tools

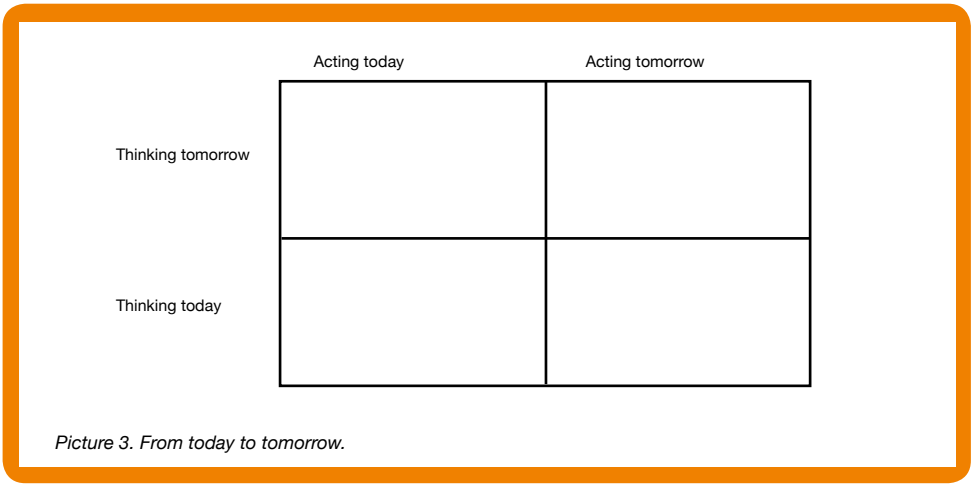
Meaningful dialogue is based on equal access to information. Citizens and government take each other serious. In subsequent chapters we will see that open data, mobile technology and social media are nothing but tools to facilitate this equal position. Besides, they create a transparent and efficient government. They open the possibilities for co-creation and crowdsourcing. Cloud computing and open standards are pre-conditions. Municipalities need not invent these means, but can absorb them in the processes and architecture of the organisation.

2. To get a role in the same film

Technological developments and changing behaviour in society have an impact on the relation between citizen and government. In trying to get a grip on these developments we should keep in mind that this is a transition period. In this chapter we will illustrate how this transition can be given shape.

2.1 Thinking and acting today and tomorrow

The transition framework below helps us understand the transition process. It consists of four windows, based on the Chaos cross of Jaap Peters[1].



Picture 3. From today to tomorrow.

The framework consists of four windows, distinguishing thinking and acting and today and tomorrow.

Thinking and acting today
For the local government this can be identified as ‘a strong basis’. It includes the targets as formulated in the i-NUP, the governmental implementation agenda for service provision and e-government[2]. Stage 3 of Answer©, Frontoffice has Answer©, makes this assignment local government-specific. The target is to prepare the organisation for outstanding service provision. A strong basis is the foundation for transition from today to tomorrow.

1 J. Peters, *Niets nieuws onder de zon en andere toevalligheden. Strategie uit chaos*, 2008.
2 Programmabureau i-NUP (Ministerie van Binnenlandse Zaken en Koninkrijksrelaties), *Eén digitale overheid: betere service, meer gemak, mei 2011.*

Senate of the Dutch Parliament replaces printed parliamentary documents with iPad

Starting on 13 September 2011, the Senate of the Dutch Parliament will distribute its meeting documents to its 75 Senators by tablet computer. At the start of the first session after the summer recess, the Senators each received an iPad with an application (App) designed especially for the Senate. The Members of the Senate can use this modern communication tool to consult and manage the complete information flow of calendars, legislative bills, parliamentary correspondence and other meeting documents.
With that, the Senate of the States General is the first house of parliament in Europe to switch completely to the digital provision of information. Although several parliaments throughout Europe are considering the further digitisation of their documents, the Dutch Senate is the first to switch to digital meetings with the support of a tablet computer.
In doing so, the Senate is breaking with an almost 200-year history of distributing bills, letters from the government, reports and other meeting documents in printed form. All of this post generates thousands of pages of printed matter per Senator per week, which had to be delivered to the homes of the Senators by courier until now. And since national parliaments have been allowed to state their opinions on policy proposals of the European Union, the amount of parliamentary post has grown even further. From now on, the 75 Senators will be able to view all documents directly on their iPads and add notes to meeting documents. The calendar 'links' directly to the national and European files. It is expected that the vast majority of Senators will use the iPad exclusively once accustomed to using the tablet computer.

(Source: www.eerstekamer.nl, 13 September 2011. The discussion on the use of tablets, such as the i-Pad, by the local government can be found on www.frankwatching.com/archive/2010/12/17/business-case-ipad-voorgemeenteraden/).

Thinking today and acting tomorrow
This window deals with innovation within the framework of an organisation. Focus is optimizing the current situation. Processes as such do not change, the tools do. Tablet (iPad) replaces paper, smartphone replaces laptop and availability in real time changes to availability online. It is a relatively simple way to get everybody in the organisation in the same film. 'Tomorrow's thinking' is the target, not the introduction of the new tools. Link it to The New Way of Working, case-oriented working or recent cuts in the budget.

Thinking tomorrow and acting today
Every organisation has staff-members who see and understand these new developments. They are indispensable to start fundamental innovation within the present rules of the organisation. The advantage of transition via this window is that innovation will catch on and take the rest of the organisation along into the thinking and acting of tomorrow. These innovators may become frustrated by the restrictions they encounter within the present framework of the organisation. This is a potential risk, so these innovators and visionaries must be given room for manoeuvre.

App Verbeterdebuurt in the Utrecht neighbourhood de Gagel

With Verbeterdebuurt (Improvetheneighbourhood) residents can suggest points for improvement in their neighbourhood to the local government. Problems (pushpins) and ideas (lamps) are indicated on a map and sent to the government. A green flag indicates that the problem has been taken care of or that an idea has been honoured. Some 300 municipalities are already using this system.

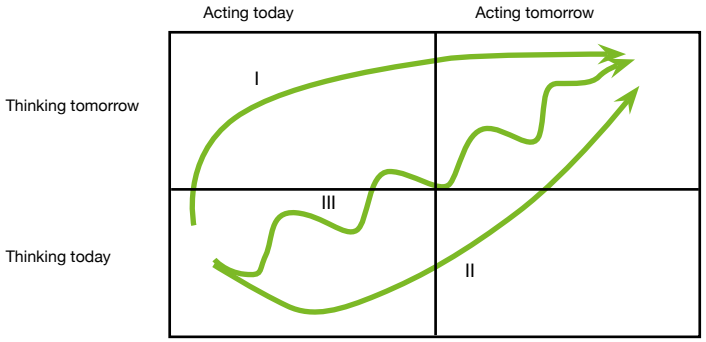
In the neighbourhood de Gagel (31,395) residents could put ideas about traffic security on the platform of Verbeterdebuurt. Problems and ideas were collected via websites, iPhone app and paper. On November 13 the local government organised a general check-up of the neighbourhood, together with residents. Their findings were collected and digitalised.

People were informed of the possibility to have a say in the process via the local paper, Twitter, e-mail and their own network.

Fifty suggestions for a safer road system were posted, most of them with photos. The local government will embed the suggestions in their plans for a safer neighbourhood. They will respond to suggestions via e-mail and publish progress and updates on their project site, www.overvechtdegagelvernieuwt.nl

Thinking tomorrow and acting tomorrow
Tomorrow's thinking and acting is about the development from local government to community, from citizen to ad hoc coalition and from citizen participation to governmental participation. Here we can see real innovation in organisation, processes, methods. The use of the crowd (sourcing, funding, creation) or service provision via social networks.

There is no 'bad' window or 'bad' itinerary
The transition framework sketches the ways from today to tomorrow. What itinerary is followed depends on the need to change and the distribution of energy in the organisation. Is the energy used for thinking or for acting tomorrow?



Picture 4. Routes from today to tomorrow.

Does the local government employ people who do see the changes in society, but do not yet know how to react to them (route I)? Or are they already working with the new tools, but do not yet see how this can be of service to the community (route II)? Situations may arise when the need for change is so pressing that direct transition from today to tomorrow, in both thinking and acting, takes place (route III). An example of this is the drawing up of a new constitution in Iceland.

Icelanders re-write their own constitution

The 2008 world financial crisis caused the three main Icelandic banks to go belly up and at the end of the year Iceland (320,000 inhabitants) declared its bankruptcy. To pay off the debt each Icelandic citizen was required to pay off € 110 per month for fifteen years, at 5.5% interest. The Icelanders did not accept this. Protests and riots forced the government to resign. When the new government decided to pay off the debts to the Netherlands and the UK, Icelanders had had enough. They refused to pay for the mistakes made by a financial monopoly and made that irrevocably clear. They got political leaders on their side and in the March 2010 referendum 93% of the Icelanders voted against repayment of the debt. This in spite of threats from the IMF and the bankers.

They then decided to draft a new constitution that would free the country from the exaggerated powers of international finance and virtual money. The constitution was written by 25 citizens elected from 522 adults not belonging to any political party. This document was written on the internet. The meetings of the 'writers' were streamed online and citizens could send their comments and suggestions. On 1 August 2011 the constitution was submitted to parliament for ratification.

(Source: Deena Stryker, Iceland's Ongoing Revolution, 1 August 2011, www.daliykos.com)

In real life government as well as society move in all four of the windows. How do we start up the transition from today to tomorrow, that's the question. One important pre-condition is that the municipal organisation is aware of the need for change. We have to find a sense of urgency which has to be maintained and strengthened. Urgency is a result of various motives from various sources. The energy that is generated by that sense of urgency fuels change.

2.2 Interpreting the role is a dynamic process

A distinctive feature of a changing society is that the initiative comes from the citizen, who creates his own swarm or joins an existing one. The participants in the swarm vary with the issue, just as the place where they meet. A swarm can form rapidly and just as rapidly dissolved when no longer needed. What does that mean for the role of the local government, which traditionally approaches participation from a leadership position and tries to involve others? Now the initiative no longer automatically lies with the local government. Nor does steering the process. Ownership shifts from government to society. In the interpretation of its role of the government varies between regulating and letting go. Tomorrow's thinking and acting is about the local government as one of the players together with others such as individual citizens, groups of citizens, businesses and organisations. For the local government this is a new game, with new roles.

Regulating
Tasks which the municipality has to carry out on the basis of legislation, for instance upholding the law. This is the traditional relation between citizen and government. Citizens can also be regulating, making use of the Law on Civil Initiative.

Traffic checks in the region of North- and East-Gelderland reported via Twitter

In December 2010 the police in the region of North- and East-Gelderland have started to use Twitter to indicate the locations of traffic checks. They hope that this will have a preventive effect and they also want residents to see what they are doing to improve traffic security.

Twitter is also used for other tasks. More than ninety police officers are communicating with residents in this fast and low-threshold way. In this way the police hope to directly involve the residents in realising a safe living area.

Informing

Here, too, we are dealing with a traditional relation between the citizen as customer and the government as service provider. Communication runs via the different channels and media available to the government. Nowadays new media such as Twitter are also deployed, as you can see in the example about the announcement of traffic checks by the police in the region of North- and East-Gelderland.

Alphen aan den Rijn creates a new structural vision with the help of social media

In November 2010 the municipality of Alphen aan den Rijn (72.534 inhabitants) organised 'The week of structural vision'. Together with the local government, citizens, experts and people with vision made an analysis: what are the municipality's strengths and weaknesses? What are the chances for the future?

The local government tried to involve the residents via traditional means (billboards) as well as new media such as Twitter, Hyves and Facebook. There was a rap on YouTube, polls on www.alphen.nu and background information on a special website. This approach proved very successful:

- 347 friends on Hyves.
- 615 followers on Twitter, 11.000 Tweets.
- 146 friends on Facebook.
- 420 connections on LinkedIn, 60 reactions with content.
- 3.688 visitors on www.destadvanmorgen.nl, staying for 5 minutes on average
- 2.114 reactions op the polls of www.destadvanmorgen.nl.
- 410 reactions on the polls of www.alphen.nu.
- One letter, no e-mails and no phone-calls.

Directing

In its directing role the local government directs the process in the community as the owner of an issue, defines the framework and steers towards a result. An example is the municipality of Alphen aan den Rijn, creating its structural vision with the help of social media.

The following example shows that the municipality of Smallingerland has discovered the power of the community 'in an organic way' and is successfully using the crowd.

Initiative in Smallingerland moves from local government to community

In 2008 the municipality of Smallingerland (ca 55.000 residents) was to start a large number of infrastructural projects in the centre of Drachten. For quite some time the centre would become difficult to reach. The municipality appointed 50 residents who would serve as a think tank to try and keep the centre as lively as possible during the renovation period. They were representatives of the cultural and sports sectors, the church, the business community and the citizens. The municipality also opened a website with activities in and around Drachten, with and without an accessible centre.

There was a delay in the projects. The site, however, kept attracting visitors: More than 2000 members and 8 - 9000 individual visits per month. It organically grew from a communication channel of the local government to a site for the whole community. Theatres, shopkeepers' associations and sports clubs are filling the agenda. Residents write blogs and there are opinion polls. 90% of the visitors reads, 9% participates and 1% creates new material. The site is a way to mobilise the crowd, which has already resulted in the redesigning of a park. The impact of the website has become far bigger than originally planned.

Facilitating

In this role it is the citizen who is the owner of the process and the local government has a supportive role. The citizen directs and steers towards a result. The local government gives full support. After the riots in the summer of 2011 residents of London took the initiative and directed the process of cleaning up the mess.

Cleaning up the mess after the riots: #riotcleanup

During the August 2011 riots in London, @sophontrack created #riotcleanup. He called on the population to react to the chaos in a positive way. Initiatives were linked online, the @riotcleanup account was started up and the website www.riotcleanup.co.uk went on air. Thousands of people, many celebrities among them, twittered about this initiative and the next morning hundreds of people gathered at various locations, armed with brooms to help the London authorities.
Other cities copied the initiative and in Manchester thousands of people helped cleaning up the mess after riots there. The initiative did not stop there. People still gather in their local areas to make them more inhabitable.

Clapham Junction / Battersea

The Doddington Estate Community Gardens clean up started well on Saturday, spirits were high and a lot of the ground work has been started. This project is on going and volunteers are requested on Wednesday between 4-8pm and Saturday between 10am and 1pm. Please meet in the square behind the Tesco on Battersea Park Rd (SW11 4LU)

There will be a meeting at the Clapham Grand, this tuesday at 7pm for anyone who wants to be involved in helping with the St John's Hill Festival.

Please visit Riot Remedy or @riotremedy – as they are the point people in your borough.

Participating

In this scenario society owns the issue. The local government is part of society and co-operates as such. They supply the means and the know-how, but do not play a steering role. The municipality of Leusden feels more and more part of the community instead of a governmental body that decides what is good for its citizens. In the example below you can see how they are doing that.

Leusden is changing, along with the community

In the municipality of Leusden (28.871 residents) the relation between local government and community is changing. From deciding what is good for them, the local government has moved towards cooperating with residents, businesses and organisations and is investigating what roles can be transferred from the local government to the community itself. To reach as many people as possible, including younger ones, the participation platform 'VeranderLeusden.nl' was created, offering the chance to actively participate in the changing role of the local government. Ideas were sent in, 50 of which were posted and they got 200 reactions.

Along with a poster campaign, Twitter was used to draw people to the platform. 330 people have participated so far. Leusden aims at a combination of online and offline. Not everybody can or wants to work digitally and many of the residents indicated that they did not want to see personal contact disappear altogether. Leusden points out the importance of taking enough time for a good preparation. (Online) participation is more than an account on the social media. It has to be clear what the expectations are of both the local government and the participating residents. Process, not technique should be the leading motivation.

(Source: Gemeente Leusden and nClude)

In the municipality of Peel en Maas (see example) responsibilities for certain social issues have (partly) been transferred from the local government to the community. The local government focuses mainly on security, infrastructure and other legal obligations.

Partners in the municipality of Peel en Maas embark on a dialogue

The municipality of Peel en Maas (ca 43.000 residents) consists of several villages, which used to have their own village councils. These councils had been institutionalised to such an extent that the individual citizens had no say in the local government's policy any more.

Peel and Maas came to the conclusion that the local government had appropriated so many responsibilities, that citizens had withdrawn. Now it aims at returning a number of these responsibilities to the community. The local government will focus on security, infrastructure and other legal obligations, whereas other tasks will be transferred to the community with full or shared accountability. One of the municipality's ambitions is to improve the lives of the most vulnerable in society, together with the residents. Care is a collective responsibility, even though not all the residents agree on that.

It is the community's responsibility to think about social behaviour, quality of education, care for the elderly etc. The municipality facilitates local discussions and each village can formulate its requests. This happens on an informal basis and is initiated by the community itself. In a local dialogue the community decides on the quality they expect in a certain case. Together with the other responsible partners they then determine who is to do what. The local government checks if it fits in the framework after which it can be implemented.

Letting go
In this role the local government does not participate, but leaves it to the community to work out their own initiatives. In this way the citizens discover that the local government has no interest in participating, so that they themselves will have to act.

Keep listening, analysing and choosing an appropriate role
The transition of 'thinking and acting today' to 'thinking and acting tomorrow' requires the local government to be well aware of what situation demands what role. In a dynamic and complex community there is only room for a dynamic assignment of roles. The local government should constantly be aware of who takes the initiative and what impact this is going to have. How big is the swarm and who are in it ? What is the issue and which role is fitting? Listening, analyzing and selecting a role is an ongoing process.

Participation of the citizens is not a given fact
One should ask oneself if the citizens are so keen on dialogue with the local government. The fact that someone is active on the internet does not always indicate that he or she is also interested in the public domain. Lowering the threshold does not automatically lead to someone entering. Or participating. To avoid deception, one should learn from previous experiences with (e)participation. Research done by a.o. the National Ombudsman or Citizenlink, found that citizens enjoy participating via the internet, but often quit because their contributions are not taken serious, or they never get a reaction on their proposals. That is also the reason why many well-meant initiatives and trial project do not last and do not become an integral part of the New Way of Working.

It won't do to for the authorities to select forms and levels of participation where the citizen "will be called in". The well-known participation-ladder has steps, but can also be climbed from the other side, where the initiative lies with the citizen. He will then decide on participating or not, depending on "What is in it for me?".

3. Social networks as a low-threshold connector

Now that we have a clear picture of the transition that we are going through and the dynamic role that it requires, we have to decide how we are going to tackle this job. How do we move from answer to dialogue? How do we mobilise the swarm via social media? Tricky, as THE citizen does not exist and the swarm varies. Not everyone is equally adept at using new media and inside the organisation it is also a challenge to find support for dialogue. In this chapter we will discuss the various applications of social networks and answer the ensuing organisational questions.

For the use of social media on an individual level we refer to sources such as Ambtenaar 2.0 and insights from The New Way of Working. These are beyond the scope of this publication.

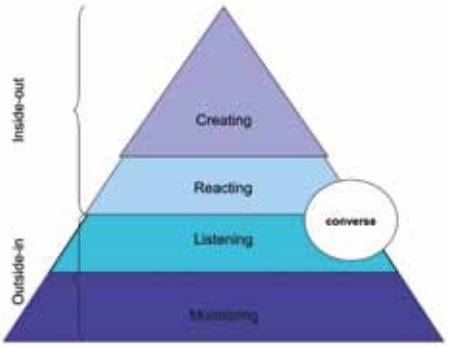
Facts about social media

- 2 billion out 7 billion world citizens use the internet and more than 1 billion are active on social networks.
- In Europe a person on average is part of 1.9 social networks (half of whom only on 1, mainly Facebook), in the USA this is 2.1, in Brazil 3.1 and in India 3.9 (simultaneous use!)
- 2,6 million Dutch are active on Facebook.
- An average session on Facebook lasts 37 minutes, on Twitter 23 minutes en on LinkedIn 26.4 minutes.
- Per week internet users watch on average 9.7 hours of video online, 65% of which between 9 and 5.
- 1% of the users creates, 9% contributes and 90% only watches.
- All age-groups and all target-groups are active on social media. The target-group aged 35-55 is the most active.
- Via Hyves 25,000 new donors were recruited in the Week of the Donor. The tv-action recruited 7,600.

(Source: Prof. Steven van Belleghem @steven_insites via SlideShare, 2011)

3.1 Monitoring, listening and reacting

The Social Media Pyramid, developed by Bart van der Kooi, is a model showing a coherent view of the social media activities in an organisation. The organisation acts as sender and receiver. When monitoring there is a “more-to-1” relation. Listening and reacting calls for “1–to-1” relations, with sender and receiver changing positions (listening: organisation is receiver; reacting: organisation is sender). The creative process leads to a “1-to-more” relation.



Picture 5. The Social Media Pyramid arranges the activities of the organisation on social media. (Bron: Bart van der Kooi, www.socialmediamodellen.nl)

Monitoring

To apply social media in an organisation it is best to begin by monitoring. What is written about my organisation, product or service? Who writes it, what is its impact and where is it to be found? What is my online image? It is revealing to follow conversations at their original site. The citizen determines the location. Searching on Twitter, Facebook and Hyves can be rewarding, but conversations are also conducted on fora, blogs, newssites and in comments on articles.

"Presence only is not sufficient"

On 22 September 2011 David Kok published his survey 'Only presence on social media is not enough'. 219 municipalities (69%) took part in the survey and declared that they mainly used Twitter.

The outcome of the survey shows that 50% of the municipalities uses social media. It also shows that 86% does not know how to use them effectively. The survey concludes that there is still a long way to go before the local government makes optimal use of social media and pleads for serious consideration of this item.

1. The old model for communication via sender and receiver is something from the past. We are living in a network society, where –like it or not- giving feedback is always possible. Sharing is the thing: our opinions, locations, complaints and questions. That is what counts In communication these days.

2. Participation in social media is growing with 31% a year. A number to be taken into account! At the same time traditional means of communication will continue to play an important role and should not be ignored.

"Presence only is not sufficient"

3. The power of social media lies with "the masses". The wisdom of the crowd. Every individual can exert influence. For local governments a clear presence on social media can have a positive effect, especially if reaction time can be limited to 24 hours (and not responding is not an option). Social media offer the local government an opportunity to add to its visibility and for the citizen to increase his involvement.

4. Social media really create an opportunity to share knowledge in a fast and simple way, both externally as internally. By using social media platforms you can build a network, sometimes referred to as a "community". You can communicate with your community about your goals and plans and ask others to share their views.

5. Social media supply management with information. By monitoring critically the local government can find out what is going on. If there are many tweets about bad telephone lines, they can do something about it.

(Source: http://www.gemeente.nu/web/Actueel/Actueel-home/Artikel/55045/Vijf-redenen-om-social-media-echt-te-gebruiken.htm)

Listening
Listening is more that monitoring your image online. It s a first step towards action. Direct questions for the municipality (@tilburg, @13, etc.) are received directly, but indirect messages can be interesting as well. Use intelligent filters by searching for names and synonyms for the municipalities, hamlets, villages, administrators, topical items etc. In this way you come across items which are not directed straight to the municipality, but which nevertheless are relevant for the municipal domain. They may contain important information for the municipality to improve its functioning. Complains about a dangerous crossing or the wish for playing fields for instance.

Subsequently analyse the message, the question, the signal. For whom was it meant? What emotion does it transfer and is this the usual way in which this person reacts? Analysing messages can be done by hand if there are not too many. For greater amounts is will have to be automated. Selection on emotion is important. Highly positive or negative reports can make or break your (brand's) reputation. This is the Superpromotor theory of Blauw Research[3]. Supposing that a real question will normally be put directly to the municipality, the Superpromotor theory advises to pay extra attention to extreme reactions. Supportive ICT-techniques for webcare, the so-called social media monitors, can help with the distinction. In collaboration with De Waard the municipality of Achtkarspelen will launch a pilot social media monitoring and set up webcare in the autumn of 2011.

Reacting
You can react in many different ways. Your response shows that you are there and that you take a question, complaint or discussion serious. In some cases it may be better not

3 R. Vogelaar, *De Superpromotor. Over de kracht van enthousiasme*, 2009.

to react. A response should be in accordance with how the Customer Contact Centre (CCC) is organised. Often CCC's have already set up a knowledge management process with a databank that is up-to-date. Some suppliers of client contact systems and front-toffice portals have already produced a list of answers to 'frequently asked questions', consisting of 140 characters. In some cases it may be desirable to save answers or entire conversations. The same criteria apply as for registering a customer contact. A message can also be forwarded inside the organisation, but question and answer must be dealt with via the same media, via Facebook or as a reaction to a blog for instance. Citizens expect a quick response, much quicker than in case of a phone-call or a letter.

Reporting
Reporting is not part of the Social Media Pyramid, but it is important for the local government. Reports on volume, emotions and subjects in messages in social media contribute to an optimal information provision. They also serve as a reflection of sentiments in society. They deserve a place on the reports list of the CCC on customer contacts, service level, work progress, statistics on visitors and dealing with letters.

Social media monitoring, the ears and antennae of your organisation

Organisations wanting to make a start with social media can do with some digital consideration. Monitoring 'online talk' about your organisation is low-threshold, simple and cheap. Social media monitoring is support ICT for webcare. There are various monitors, some of which can be used freely via the web for one or more social media. With Tweetdeck you can follow news items on different subjects simultaneously. Other monitors are more refined and pick up more sources, have analysing technology specific for the Dutch language or are adapted for connection with customer contact process and case-oriented working.

3.2 And what about creating?

Interaction on social media is different from personal interaction or an ongoing newsflow, a buzz, which we, as an organisation are interested in. This interest is heightened when there is a sudden wave of messages during in a limited time span coming from a swarm of citizens. An example is the number of tweets around the fire at Moerdijk. National events such as The Queen's Birthday, campaigns and debates also lead to a lot of activity on the net. We have already come across the experiences of Alphen aan den Rijn with their 'Week of Structural Vision'. It is typical that the composition of the swarm can neither be influenced nor predicted. The local government can do some steering by sending messages. It can also try and mobilise a crowd. Examples are tracing a burglar or AmberAlert to find a missing child. The local government and the swarm interact via webcare. Crowdsourcing is a useful tool for a compact government. It smoothes the division of tasks between government and citizens, positive and cost-effective! Citizens become more involved and are sooner prepared to take initiatives themselves.

Hoogheemraadschap Rijnland experiments with Twitter

In 2011 the department for communication of the Hoogheemraadschap of Rijnland (Water Board for 1,3 million inhabitants) started to use Twitter to send and respond. This was triggered by a period of drought in the spring of 2011 which had a direct impact on farmers and market gardeners in the region. To take stock of problems and solutions the Hoogheemraadschap started an open dialogue. Several meetings with the stakeholders were held in the region and Twitter was introduced as an additional means of communication.
For more information the tweets referred to a special section on the website of the Hoogheemraadschap. Reactions to the tweets were carefully monitored and action was taken where needed. In an evaluation of the communication path the Hoogheemraadschap got positive feedback of all those involved. They greatly appreciated the involvement and active supply of information.

(More information: www.connecting2day, www.toconnect.nl and @MarcoMarechal)

3.3 Some assistance in deploying social networks

Social media are a useful addition to processes for customer contact, communication and participation. Below we will try to give you some advice on how to deploy social networks in a working organisation.

Know the rules of the game
These rules are identical to those for individuals using social media. You can build up a group of followers and follow people or organisations relevant for you. Make sure that you post important information on a regular basis, both your own and funny and useful news of others (2:1:2). Remember that social media have a collective memory: there will always

be someone digging up something from the past. On websites such as www.frankwatching.com and www.Official20.nl you can find lots of examples of practical information on what may work for your organisation.

The challenge is to react quickly, but within the boundaries of municipal guidelines for the answer process. To keep up the pace mandates will have to be widened. A CCC staff member having to wait for a response from the second line slows things down. To gain time you may have to manage expectations.

Oude IJsselstreek introduces civil jury, civil budget forum and civil inspection

In 2008 the municipality of Oude IJsselstreek (ca 40,000 residents) was selected as one of 12 'experimental municipalities' by the VNG (Association of Dutch Municipalities) for a participation project 'In Action together with Citizens'. They started a " Group of 100". This sounding board for participation projects consisted of 50 citizens, 30 people from social organisations and 20 administrators. They selected three participation projects: a civil jury, a civil budget forum and civil inspection. In this way they targeted people without very strong opinions.

For setting up a civil jury, they used Henk Albeda's model (Radboud University). Oude IJsselstreek composed a group of 75 citizens, on an academically sound basis. This jury may formulate answers to questions of the city-council, such as what kind of and how many swimming pools are to be constructed given the municipality's budget and maximum time to get there.

The civil budget forum consists of 110 members and directly advises on the municipal budget via voting boxes. As a result one of the proposals concerning the private property tax was withdrawn.

Civil inspection will start in 2012. The citizens involved are selected on the basis of know-how and position. They are to judge the municipality on aspects such as leadership, organisation skills and cooperation with interested parties.

Not only webcare but the entire organisation

At first sight the CCC seems to be the logical body to listen, filter, analyse, answer and handle the messages on social media. They focus on customer contact and their processes can be used for webcare.
The nice thing about social media is that they can be deployed anywhere in the organisation. The registry or a project group can conduct their debates in this way. The communication department can announce campaigns and events and crisis communication lines use them to answer questions about incidents and emergencies.

Basically webcare should always be there where it is needed most. The filters of the social media monitor have to catch the buzz around topical topics and extra capacity has to be supplied for a discussion with a whole swarm. The municipal architecture will have to integrate the customer contact system and the midoffice.
The whole organisation must have access to the messages and monitoring must be set up everywhere.

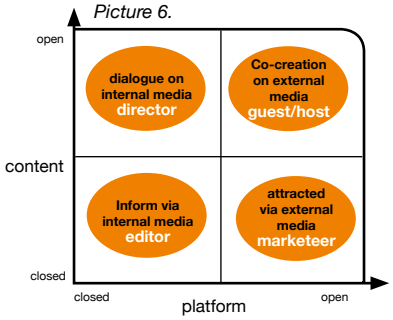
Nationwide pilots will have to determine the volume of the webcare task and what works best. Does this require extra staff or will shifts in channelling lead to extra staff becoming available?

The role of the local government depends on the contents and location of the dialogue

Otto Thors (we-Government) distinguishes four roles for a municipality active in social networks. Important factors:

- Where the dialogue takes place.
- Whether it is internal or external.
- The extent of interaction.
- Who takes the initiative.

Picture 6.



Editor: inform via internal media

If content is created and published inside a closed platform, focus is on information via internal media. Home-written messages on an own website. The editor is familiar as he/she manages the website and the databank. Sending is his/her main task; its impact is not always foreseeable.

Marketeer: attracted via external media

If home-written content is published on external platforms, we are dealing with the marketing-oriented involvement of (new) target groups. In this quadrant an organisation realises that the target group does not use their own website every day, but frequently uses online platforms, such as Twitter and Facebook. These could also be apps of another source, such as openinghours-app or appointments-app. RSS-feeds on theme are a simple first step within this quadrant. Step two is the publication of own content on social networks from a central profile.

Director: dialogue on internal media

If contents and composition of content have an open character, participants may themselves post information and add to the online space of the initiator. This dialogue can be held within a forum or wiki of the municipality with the participators being asked for their opinions or experiences on a specific subject. The initiator is also the owner of the platform and has maximum steering possibilities, so that he decides if a platform remains open. See earlier examples of the municipality of Smallingerland in the previous chapter.

Guest: co-creation on external media

If contents and composition of content have an open character and are also shared online on an open platform, for instance inside a LinkedIn group, we talk about co-creation on the basis of equality. In that cast the initiator is not the owner of the platform and has fewer possibilities for steering. Moreover anybody can post, add or modify information. If an organisation starts a dialogue on an open platform, there has to be a host. If the discussion is already in progress within an online platform and the organisation wants to join, they will start as guest.

(Source: Lecture workconference and presentations by Otto Thors on Slideshare).

Opportunities for city marketing

Social media create new opportunities for city marketing. An example is an app for visitors with touristic information, an app with city walks in combination with QR-codes on special locations and apps with information about specific places in the city.

Herengracht in Amsterdam covered with QR-codes

In the historic Amsterdam canal district, on the embankment of the Herengracht, there are QR-codes for an interactive round trip through the canals. On the occasion of the WCIT in the RAI, passengers got access to information on the canalside houses via this code.
Thus, from outside, they can take a look at the interior of 25 of these houses using their mobile phones and they get information about both their history and their present use.

(Source: www.qtag.nl)

Make clever use of collaboration tools

Social media can also help streamlining internal communication. Yammer is an internal network, which is only accessible to members of the same organisation, who can then exchange messages and share documents. It is easy for them to exchange information and check previous conversations. Other collaboration tools such as Pleio and Dropbox will be discussed in chapter 6 on cloud computing.

A fire on shunting yard Kijfhoek in Zwijndrecht

The municipal Servicecenter Drechtsteden is responsible for a.o. the communication in the six Drechtsteden (26,000 residents) and various regional organisations. In emergency situations the communication advisors of the Servicecenter together form the “Actiecentrum Voorlichting”. That was also the case when in January 2011 there was a fire in a train carriage on shunting yard Kijfhoek in Zwijndrecht, with a risk of explosion. The “Actioncenter” was set up and Twitter was chosen as communication channel: @brandkijfhoek. In a very short time 800 followers were reported. Ongoing interaction among the various information channels ensued. Questions via the public telephone number became input for tweets and vice versa. Via Twitter the measures and scenarios were communicated. In this way the Actioncenter informed the followers of the progress that was made. Supply of information greatly benefited from social media, even though there were errors in communication. The Actioncenter remained alert, however, and kept things under control. To improve the use of Twitter, a special team is looking into this matter. Trainings and regular exercise will make this new medium more familiar. Monitortools are to prioritize tweets, messages on Facebook etc., on message as well as person.

4. Mobile technology as a Catalyst

In this chapter we will discuss the trends in mobile technology and the consequences for local governments. Just as in the chapter on open data we will not approach the subject in a very technical way. The terms are explained in the appendix. This chapter is mainly based on the report *Smartphones, mobiele websites en apps; gevolgen voor Voorlichting,Onderzoek naar trends en gevolgen van mobiele technologie voor de voorlichtingsfunctie van overheden* for the Commission Central Governmental Communication and research into apps for local governments by HowAboutYou.

4.1 Ten trends in mobile technology

Mobile technology is developing rapidly. At this moment we can distinguish ten trends. Their applications are explained further down:

1. Apps.
2. Augmented Reality.
3. Location Based Services (LBS).
4. Near Field Communication (NFC).
5. Mobile payment.
6. QR-Codes.
7. Apps for events.
8. Mobile devices and media integration.
9. Information supply based on profile.
10. Apps for fun (gamification).

Facts on data traffic in 2010-2011

- The growth of mobile internet leads to adjusted business models; teleproviders such as Vodaphone and T-Mobile see mobile internet replacing traditional channels as voice and SMS.
- In 2010 the number of visitors of www.ib-groep.nl (Education Services) using a mobile device grew by 300% (24,433 to 95,372) The total number of visitors grew by 20% (4,529,701 to 5,760,288).
- The number of visitors of the mobile website of the Department of Waterways and Public Works, www.rws.nl, is increasing far more rapidly than that of the older one, rijkswaterstaat.nl.
- Data traffic to Vodaphone mobile devices has tripled compared to the year before.

Facts on apps in 2010-2011

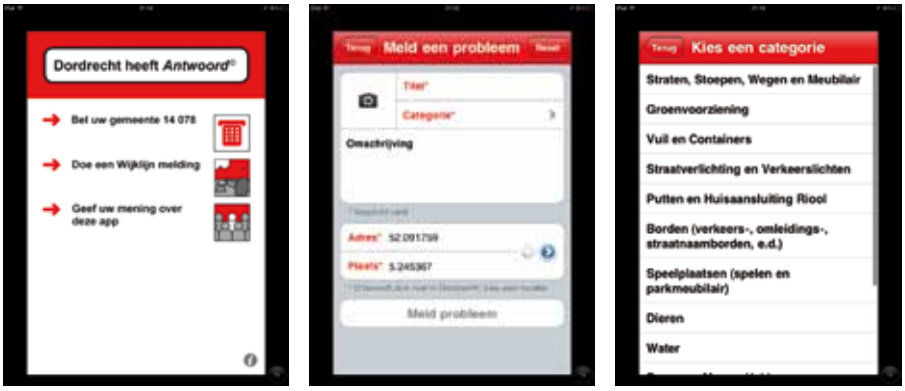
- The appstore of Apple offers 400,000 apps.
- Globally more than 11,000,000,000 apps were downloaded from this appstore.
- On average a user installs 25 apps and uses 12 of them, mostly social network apps.
- 12% of smartphone owners uses location-based data (LBS)and 20% checks in every day.
- 4% of smartphone owners is familiar with Augmented Reality.

(Source: o.a. Prof. Steven van Belleghem @steven_insites via SlideShare, 2011)

Apps: mobile applications for direct use
An enormous number of mobile applications, or apps, are being developed and sold in appstores. In total there are about 51 appstores, all of them with their own target. For government information the appstore of Apple, Androïd Market and Windows Phone Marketplace are important.

An example of a central governmentapp is Rijksoverheidapp. This app contains the content of the central government website www.overheid.nl. The app was originally developed on the initiative of a market party. This party copied the data from the website and put them in the app. Then the government contacted the market party to work together in order to improve the quality and comprehensiveness of the app.

The Municipality of Dordrecht has developed an app for the reporting of problems in public space. The Dordrecht-heeft-Antwoord©-app is based on the technology of an existing app and got a Antwoord©-logo. Several other municipalities are considering the introduction of a copy. Dordrecht is planning to further develop this app, so that it can also be used on other types of telephones.



Picture 7. Inhabitants of Dordrecht can report problems in public space via an app.

Augmented reality: adding a virtual layer
With Augmented Reality a virtual layer is added to reality. If you look at your surroundings via the camera of your smartphone, you get extra information. An example is the Funda Layer, showing the houses that are for sale in a particular neighbourhood. Smartphones are convenient media for the application of Augmented Reality because of a relatively large screen, camera, always on line, GPS and processor. Augmented Reality is also used on TV and in instruction videos. For government communication it can e.g. show governmental construction plans in public space, showing citizens what a future building will look like. Via another development citizens can rank public space: their opinion about a building in public space is added in a layer. For the first time they can actually see what it will be like in reality.

Zoetermeer is going to work with the W-app targeted on its different districts

To tackle multidisciplinary problems the municipality of Zoetermeer (121,920 residents) works via districts. The problems are often social and nuisance problems involving public space. The local government works together with partners in maintenance and social services. The department of district management has already introduced district action plans.

The municipality of Zoetermeer is developing an app in which all the measures from the actionplans can be found. All chain partners (police, districtmanagers etc.) can log in and submit information and the inhabitants have access to the app. In this way they get information on what is happening in their district and are invited to actively participate themselves.

The information is also to be found on the municipality's website and for personal contact there are the district contact points. A nice mix of traditional and new channels to involve people. The main challenge is the obligation of the partners to keep their information up-to-date. In January 2012 the app will be launched.

Location Based Services: relevant information on location

Most smartphones have a GPS function; the phone knows where you are. You get access to information relevant to that location, supplied by Location Based Services (LBS). Four examples of LBS are:

- Funda: information on houses for sale near you location.
- Weather radar: are showers to be expected on your location?
- Repudo: you can exchange news and photos on the basis of your location.
- Foursquare: after checking in your location is sent to friends.

Waterboard Groningen

The Groningen Waterboard supplies 575,000 private and corporate users with ca 42 billion litres of drinking water. The Waterboard decided to improve its service provision by making all their data centrally accessible on the company portal via an intelligent map. Thanks to the collaboration between internet office Clockwork and engineers office DHV, staff members can track and trace interruptions in the production process faster than before.
The intelligent map is based on 3 pillars:

1. Integration of information (sources); data from different locations in the organisation are put together.
2. A visual presentation of information: the map can project data on a geo map.
3. Personalisation: users can make their own selection from the databank.

Staff members get the information relevant to them and layers such as measuring points or clients can be switched on and off. There is also a link to client data, so that vulnerable clients (hospitals e.g.) can be traced faster.

The value of the map depends on whether the (geo-) information from different sources is correct and up-to-date. If it is not, the map is no longer functional.

iGGS (interactive Municipal Geografic Information System) is an example of an app supplying information about Dutch Municipalities on the basis of your location. On a map you can see what (building) permits have been granted near your present location for instance.

Near Field Communication (NFC): short distance sending and receiving
NFC is more and more used on smartphones. You can pay via your smartphone or exchange information with another smartphone. RFID tags are small information chips used to secure e.g.shop articles. NFC can also be applied to offer local information, on objects along a historic city-tour, for instance.

Practical innovation with i-Thor by city surveillance Rotterdam

The department for city surveillance in the municipality of Rotterdam (612,502 residents) deals with law-enforcement and surveillance. When the bulky pocket computers used by the city guards had to be replaced, city surveillance decided to go for something more advanced. Via public/private cooperation i-THOR was developed, which also turned out to be cheaper.

City guards are equipped with an iPod, a mobile router and a small printer. The iPod contains several apps with possibilities for interactive communication, GPS, camera and WiFi. Parking attendants can trace if a car has a parking permit and if its owner has paid his local tax. The colours red and green show the city guard if an offence requires direct action. He can also ask for a wheel clamp and the police is alerted automatically if the city guard has come across a stolen vehicle.

I-THOR has also improved ticketing. Fewer tickets are invalid because of errors in administration. The printer does not print a ticket, if there are errors in the input. To support guards standard declarations are also available on the i-Pod.

Mobile payment: settle the bill there and then with your smartphone
There are several forms of mobile payment. You can pay directly via your bank or you can activate a link to a site. The receiver carries out the payment and informs the sender right away. Via a link with Paypal in an app you can pay for a service or a product on the spot. Possibilities for mobile payment are still being developed. There are frequent discussions between suppliers of pay systems and banks on the launch of new solutions in the near future.

QR-Codes: more and faster information
A QR-code is a barcode able to encode a URL.They are to be found on magazines and the packaging of products. The user photographs the barcode with his smartphone, the phone encodes it into a URL, after which the relevant website appears on the screen, via the webbrowser. In this way the user does not have to type in the URL which saves time and prevents mistakes. Nowadays a QR-scanner is installed on every smartphone, some of them able to scan directly, without the need to take a photo.

QR-codes can be used for various communication targets. As an experiment the Central Fine Collection Agency has printed a QR-code on letters, which links the receiver of the letter to a relevant website.

Picture 8. Amsterdam uses QR-codes to give visitors information connected to the Queen's Birthday. (Source: http://www.mobypicture.com/user/leoverdonck/view/9370477).

Apps for events: an alternative for brochures and flyers
It is becoming simpler and cheaper to develop an app. So the option to create an app for a unique event is now an attractive option. There are already apps for congresses and fairs etc. The low development costs and the ever larger range make them an attractive alternative for brochures and flyers. They also offer techniques such as QR-codes which can be used for location-based services and extra information. In case of a disaster the app can inform people quickly and to the point.

Mobile devices and media integration: twitter in front of your TV or during a congress
More and more TV programs use mobile technology as an extra communication channel. Sitting at home watching TV, viewers share opinions and comment on the program via Twitter. Via hashtag(#) everybody can follow the stream of twitter messages.
At congresses and fairs, too, hashtags are increasingly used to catch the visitors' comments and support temporary local communication. It adds an extra dimension to the event : Non-attendees and office personnel are able to follow the activities and get an impression of the atmosphere via videos and photos.

Information supply based on profile
Social network users can collect all their social network activities in a centralized place on the basis of their profile. With Flipboard for instance, an application which automatically presents content from Facebook, Twitter, LinkedIn or other social media in the shape of a magazine – a social magazine. Online "friends" can leaf through it and see what the user is currently concerned with.

Apps for fun create a lasting effect (gamification)
Several mobile applications have gaming elements. This stimulates the use of the application. As a user of Foursquare (a location application) you are awarded points and badges every time you use it, which then entitle you to reductions or special offers. Mobile gaming elements are increasingly introduced to enrich offline activities. The social-running network of Nike offers challenges and badges to promote the offline activity running. Philips' DirectLife enables you to measure all your fitness activities. People's behaviour can be influenced by gamification and it can support policy makers in realizing desired results. An online budget game could teach people how to deal with money and Repudo, an application similar to Foursquare, stimulates physical exercise by drawing up a course that has to be run in real life.

4.2 Mobile technology strengthens effects social media

Now that we have illustrated the trends in mobile technology, we will continue to stress a number of general points for attention when using them in government organisations.

Mobile technology increases the use and power of social networks
The combination of mobile technology and social networks makes it possible to share information always and everywhere and in a fast and transparent way. Online dialogue is not restricted to sitting at a computer from 9 to 5, but can also take place at home or while travelling. The organisation itself has to draw up rules and manage expectations of the network's availability and accessibility.

Shorter messages in a different location and at a different moment
Via a mobile device information is absorbed in small pieces. Messages are brief and fit on a small screen. They are read quickly and have to supply an answer or a message of interest to the user. Since information is generated in a different way, the municipal content team may have to change their approach. Webbrowsers allow considerable lengths of text, whereas Twitter allows no more than 140 character.

New channels with their own distinctive features
Apps and mobile sites have distinctive features and require specific management and organisation. Many government sites have been designed for webbrowsers on computers and may not be the best option for mobile phone or tablet. The screen of a smartphone is too small for these websites and affects legibility and user friendliness. Certain functions of the website may have to be altered as well, such as filling in webforms. The present channel strategy will have to be adjusted to the possibilities of apps and mobile websites. Channels have to boost each other on the basis of their own power.

New possibilities to reach target groups
Even though it may take some time, these new means offer many advantages. Not only for the residents of the municipality, but also for tourists and non-Dutch speakers. The examples in this publication show that their application can be positive for processes such as policy-making, law-enforcing and democracy. With the app BuitenBeter (BetterOutside) the municipality of Eindhoven now receives more reports on public space than before. Cyclists could be warned when entering an area with Q-fever and people taking a stroll near the city hall could be supplied with the opening times of the public counter.

The Municipality of Enschede introduces various digital channels

The municipality of Enschede serves their citizens with various digital means:

- www.enschede.nl: the official website with a link to a special community website.
- An app for reports on public space on the basis of Verbeterdebuurt-app.
- A mobile website www.m.enschede.nl which opens when a mobile device contacts www.enschede.nl.

Below: as an illustration the 1997 and 2002 sites are shown as well.

1997

2002

2009

2010

2011

At the same time: business as usual

The possibilities of mobile technology are unlimited, but have to fit in with the regulations and processes within the government. They become part of a complete communication range already based on reliability, convertibility and reproduction.

4.3 Selecting apps

Trends in mobile technology make possibilities as well as effects visible and tangible. Where to begin? In this section we will elaborate on the most frequent questions about the introduction of mobile technology in a municipality.

Web or app?
Is it wiser for your organisation to develop a mobile or a web application?
The following points for attention are to help you in making the right choice:

- The user's choice is vital. Only develop an app if it is going to be used. Investigate demand before spending money.
- The app has to be suitable for as many devices and operating systems as possible. Build it in HTML5 (the latest mark-up language on the web).
- A quickwin to make local government information available on mobile devices is creating a mobile alternative for the existing website. (see m.enschede.nl). Supply e-forms via an app; better and quicker!
- A mobile website is only available online and can be found via Google. Finding an app goes via an appstore, but an app can often be used offline as well.
- An app is best for applications using the functions on a smartphone, such as GPS, motion sensor and camera.
- Remember that developing a mobile application system is a job for expert professionals. Knowledge of design, usability and underlying technology is essential.

Make, buy or surf?
As with every investment in ICT the question of in- or outsourcing arises. When developing an app, take note of the following:

- Right now local governments spend on average € 1.- per inhabitant per year on their websites. These costs are expected to rise with more mobile applications.
- The development of the Android version of the i-Phone-app Dordrecht heeft Antwoord© cost € 12,000.
  A copy costs € 5,000 per municipality. There will be further costs for management.
- Managing an app is time-consuming: Each new version has to be placed in the different appstores. Who is going to do that?
- Do not re-invent the wheel. Form a coalition to develop things together. Often market parties have already developed solutions which can be applied quickly and are cost-effective.

4.4 Where to begin?

There is still much to be discovered and tried out with respect to the deployment of mobile technology within the government. Below you find a number of questions that local governments and suppliers are trying to answer.

Special government appstores?
In the US there is a special appstore for government apps. This makes it easier for the citizens to find a government app. In the Netherlands we expect a similar development. Who will be the owner of the store? What happens if different appstores start at the same time? Do we need a separate store for each platform?

How does the development of apps fit into my architecture?
Applications such as Verbeterdebuurt, BuitenBeter and Burgerconnect have created a need to link them directly to the reporting systems of the local government. Creating a new linking system for every application is not a constructive solution. A reporting procedure requires feedback (status information) and each municipality has organised that dif-

ferently. It will not be long before video and sound fragments will be added to photos and geo-coordinates. What does that mean for the architecture of the local government? Similar questions arise when data are made accessible and social media monitoring is embedded into the system. The rise of new applications is a constant factor and the architecture will have to go along with that. Or it won't. A municipality may choose to feed reports into the system by hand, do the same with feedback via existing systems and make open data accessible in a less dynamic way. Here, too local governments should exchange information and make it available inside the chains. The StUF standard for data traffic specifies the necessary (web) services and data and as such forms a useful basis.

Learn fast in pilot projects and do not be afraid to make mistakes
We have seen that much has been achieved already in the deployment of mobile technologies for municipal practical situation. As yet, little experience has been built up, however, so that choices are made based on assumptions that may soon prove out-dated. This is important for the development path. It is better to start with small-scale, short pilots giving an indication if the chosen path is the right one. Dare to make mistakes and incorporate them in the development path. Start a number of projects simultaneously and select the most successful. Inform the staff of this method in advance. Setbacks are part of the design process. Make each mistake into a learning experience and try to avoid repeating mistakes by frequent communication with fellow-organisations.

Choices when developing mobile applications

In this chapter we have discussed the different aspects for the development, design and deployment of mobile applications. These are the choices the municipality has to make :

What product-market combinations are served by the app:

- Who, what target group needs an application?
- What does the citizen want?
- Service provision or just a 'spark'?

Web or app:

- Only information or an app using GPS, phone, always on line camera and/or sensor?
- Make use of specific mobile technologies such as Layers?
- How many apps?

Make, buy, surf:

- Make: how do we make the application smart, with a small scope, no unnecessary functions, a fun factor and a simple design?
- Buy: Link up to an existing product or create an app?
- Surf: on which applications?
- For what platforms, versions of operating systems and devices?
- How do we organise management?
- What appstores do we select?
- What about marketing and communication?

5. Open data as fuel for innovative, compact and transparent government

In the Netherlands open data is a new concept. Discussions on the release and use of open data raise more questions than answers. The first examples and experiences are promising, however, and there is a strong potential. In this chapter we will deal with insights gained so far and we hope this may help local governments to start experimenting.

Open data are sources of raw government information:
- they are public.
- they are not subject to copyright and free from the rights of third parties.
- they are paid out of public funding made available for carrying out government tasks.
- they comply with 'open standards' (no barriers to use by ICT providers or users).
- they are preferably computer legible, so that search engines can find information in documents and work it out by automatic processing.

5.1 Open data? Open government with open processes!

Government information is a wide concept. It is has been generated or collected for carrying out government tasks. Open (government) data are part of it. Open data are all public data in open standards, with an open license which are released by machine legibility. Data from the GBA (Municipal Basis Administration) or from trials and files that are person-related do not fit into this category. We will come back to these terms further up in this chapter.

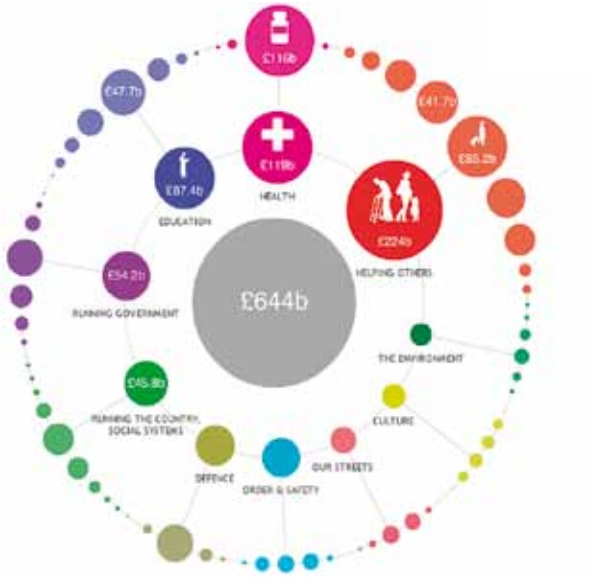
Open data can have an impact on actions
In every government domain we find examples of open data (datasets). Data on public space, such as monuments, maps and lampposts; economic developments such as set-aside land and the calendar of events. In the social domain are vacancies for volunteers, social institutions etc. Combinations of data are even more interesting: Imagine a citizen who decides whether or not to consult the city's service counter – on foot or by car -on the basis of information on waiting times, parking space and weather conditions.

Open data produce new knowledge, products and services
Both society and local government benefit from open data. They contribute to the solution of social problems and generate economic activity. Open data produce new knowledge, products and services. If managed correctly, open data can help the local government to carry out its policy more efficiently and effectively. Open data make crowdsourcing possible, to check and improve data from Public Basis Administration for instance. To sum up: open data lead to more cohesion in the community and a compact local government.

Open data contribute to a transparent local government
Open data also lead to transparency in local government. Funding can be made transparent for the public (as in the UK, with the website *Where does my money go* from the Open Knowledge Foundation).
Democratic processes and decision making can also be made more transparent. Visualis-

ing decisions per issue, political party and historic background create new insights, the more so, if they are combined with geographic data and other policy-related datasets. Open data stimulate self-reliance, participation and democratic control. It is an instrument to promote open processes and an open government.

Open data are convenient
Open data are also convenient and fun. Using the data on public toilets a citizen with incontinence problems created an application with a roadmap to the nearest toilet. There are also applications showing changes in train schedules, what bridge is open right now and arrival times of ferryboats; handy when you are on the road. Rotterdam and Den Haag have released their 3D geo-data.



Picture 9. The website Where does my money go makes government expenditure in the UK transparant.

5.2 Questions for the process owner

Open government information: sounds logical, but is it? For one thing there are the legal aspects. Who is responsible for the quality of the data? What if the government's administration contains errors, which then become public? Thus open data become an issue for the process owner (and to a certain extent for the functional manager). Many of the discussions on releasing data are based on incorrect arguments, though.

Make the release, not the application a starting point
Open data call for innovations. It is impossible to grasp all potential applications with the present use of (combinations of) datasets. Therefore it is a good idea to open up data to the community, so that they can develop creative and innovative applications. This

requires process owners to stop thinking along the structures of the organisation, and not take the application of a dataset as a starting point. It is important further down the line that a dataset is complete (no pre-selection), consists of raw source data and is made available as quickly as possible, preferably in realtime. Everybody should have access to the dataset, for any purpose and without financial barriers. Open data are to be used without justification, registration or restrictions on the basis of copy right, database legislation or confidentiality. Open data are public data without legal of organisational barriers.

Legal frameworks are flexible
The Dutch Government Information Act (WOB) determines which government information is available and accessible to citizens. This law defines the Dutch framework for re-use of government information. In 2003 the re-use of public sector information was also defined in a European guideline. Within this context information is to be re-used on the basis of fair, proportional and non-discriminatory conditions. Re-use may not be subject to exclusive contracts nor used to make excessive profit. In the laws on copy right and related rights government information occupies a special position. A number of clauses in copy right law states that in principle government products are not subject to copy right and database right of related rights, unless expressly stated otherwise. In principle all government information is public property, unless explicitly restricted.

The unwritten rules of open data determine that the re-user and not the source owner are responsible for his use of the data. This means that when someone uses datasets, he/she has to check if how he uses them is in accordance with the law. This also applies when combinations of datasets lead to a person and as such contravene the WOB.
The re-user should also name the source and location of the data. This does not apply if there is a label of CC, a CC-zero declaration (see insert below).

Creative Commons: no rights reserved!

Since September 2010 the site www.rijksoverheid.nl has the label of Creative Commons (CC). This CC-zero declaration (CC0) states that the person who associates a work with this deed has dedicated the work to the public domain by waiving all of his or her rights to the work worldwide under copyright law, including all related and neighboring rights, to the extent allowed by law. This means that all the information of www.rijksoverheid can be re-used freely.

This publication is also published with CC0. See www.creativecommons.org and www.rijksoverheid.nl for more information.

4 http://www.slideshare.net/TonZijlstra/antwoord-20-workshop-open-data-voor-gemeenten

Administrative systems with a 100% accuracy are scarce
In the local government civil servants work in administrative systems. Their target is a complete, accurate and topical administration system. Reality is different: There may be several copies of tree-listings in certain areas, different from each other. Which is the accurate list, which is most complete and which shall we hand in to be used in open data? These considerations may well result in the local government deciding against the release of these data. They may even start to create a new tree inventory. Imperfection of data is a given factor, as every administrator will tell you. Take these imperfections as a starting point! The crowd will supply additional data and can do so in a much quicker and more efficient way.

The release of data is a better starting point than the interests of the user
Process owners have to get used to the idea that their data may be of interest to third parties, sometimes even of commercial interest. Is that a bad thing? What about demanding compensation? In principle the local government makes data available regardless of how they are going to be used. Guidelines for compensation are being developed by private and public parties. Creating digital links is still a grey area: who pays for the costs, the government or the user? What if a user pays and another user wants to use the link as well? What about free access to al all public information?

Realisation is technically simple
The aspects above are major challenges in the use of open data. They are a problem for process owners rather than a purely technical one. The technical requirements have been summarised by T. Berners Lee, the brain behind the internet, in a quality model for open data[5]:

- Put it online: data have to be available online with an open license (one star).
- Machine legible: data have to be legible to machines and offered as such (two stars)
- Open standard: data have to work with open standards (mandatory for Dutch local governments since 2008) (three stars).
- Open linkable data: data from different sources with the same definition can be linked. Is the definition of income gross or net e.g. (four stars)
- Link to other data: if the data also contain links to linkable data of third parties (adding meaning and context for example) it would rate five stars.

Open standards inside the government are being developed, such as *Actieplan Nederland Open in Verbinding*, a joint initiative of two different ministerial departments. This program aims at promoting the use of open standards in order to improve information exchange and communication between government, business community and citizens. The *Forum Standaardisatie* has been asked to contribute to the development of new techniques for improved data standardisation.

5. Source: www.inkdroid.org, The 5 stars of open data, September 2011.

CIBG opens data at the right moment

CIBG (Central Office for Health Care Professions) is an implementing body of the ministry of Health, Welfare and Sport and is active in social services etc. It controls a.o. the Donor and BIG-register. In the BIG-register it is laid down if a health care professional is qualified to work in the public health sector. Thus the main task of the CIBG is the collection, processing and publishing of certified data.

CIBG united all IT-processes under one architecture and available data are now provided online via an open-source file system via a so-called webservice. Arguments for opening up access to the data were that they have been funded with public money and can be a boost for new economic developments.

CIBG was in the process of realising a website, a webservice was already part of the architecture, so opening up their data was relatively cheap. It is estimated to have cost a couple of thousand euros.

An example of an effective website is that of the BIG-register. It used to be consulted by hand. Via the webservice there are now 100,000 consultations per month. A publisher of medical journals gives a discount to customers who are on the BIG-register. When a digital order is received, there is an automatic check with the BIG-register and the discount is applied. This serves time and money for both the CIBG and the publisher.

CIBG offers its webservice under 'CIF' conditions. If adjustments to the register lead to the malfunctioning of an application of the webserver, the user himself is expected to take action. CIBGI has no delivery obligation; offering open data is non-binding.

5.3 Organise a 'pioneer', room and security

For the local government to start working with open data there are three pre-conditions:

A 'pioneer' for the release of data
An organisation-wide vision, determination and ownership are important for the developments in an organisation. Introducing open data is relatively simple: the datasets are already available and only need opening up. This must be paid for just as the hosting on a site. An enthusiastic 'pioneer' with a sponsor at the top of the organisation could greatly reduce the costs. In a number of municipalities the board is considering to open up access to all public data. In March 2011 the motion that Enschede has to become an 'Open Data City' was adopted by the city council of Enschede.

Room to experiment
Open data is a new concept. Its potential looks impressive: transparency, new products and services, innovation and a compact government. It is yet to be discovered what

is possible or not. Create room for experimenting. Experiments not only concern new products as a result of open data, but also new methods of cooperation, such as public-private cooperatives with developers, commercial parties and artists.

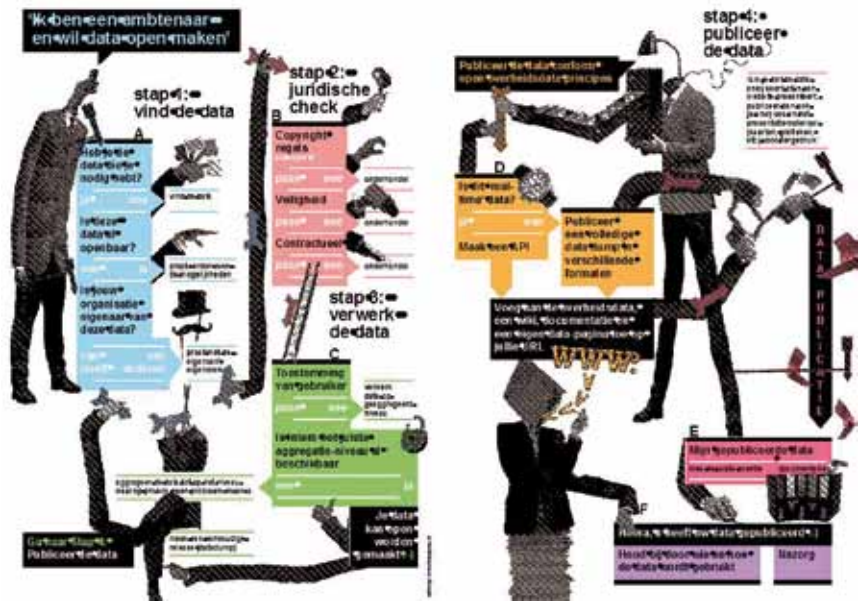
Security to open up administrative systems and datasets even though they are not perfect
The datasets that are going to be opened up consist of administrative systems of process owners. These systems will not always be completely accurate. Do not blame the process owners, but consider it an opportunity to improve the quality of the data and the efficiency of the processes and to create new applications. Process owners will be more forthcoming when they will feel more secure. Create that security in word and deed and stick to it, even in unforeseen circumstances. At the same time be transparent about the status, the aim and the topicality of the data.

Start on a small scale: create a competition
There is always a first step. The examples in this chapter show that many data are available, but not yet converted to the right format. See what happens when you start doing this. Several municipalities have organised competitions to make applications for available datasets. This can speed up the process. These competitions result in practical and innovative applications for open data. Often for smartphones, but also for websites, as in www.buurtvergelijker.nl (which compares neighbourhoods).

In this way not only the organisation, but also society becomes familiar with the possibilities of open data. In September 2011 the municipality of Den Haag organised an Open Data Hunt to familiarise the internal organisation with open data. In a one-day workshop the municipality got information about the theory, the possibilities and impossibilities of open data. Nineteen datasets were localised and seven datasets were released. These datasets are to be found on the site of the municipality of Den Haag and are also available on the central government's open data portal, www.data.overheid.nl. This site aims to be the register for open data of the Dutch central government. In September 2011 it was opened by minister Donner. Other municipalities have shown similar initiatives. Much of the information about open data can be found on the internet via the LinkedIn group Open Data or Ambtenaar2.0.

The Ministry of BZK (internal affairs) will actively promote re-use of government information and they are hoping to make open data easily accessible.

Picture 10. www.overheid.nl is the Dutch register for available open data sets of the government



Picture 11. The release of data in six steps. (Source: Ton Zijlstra en James Burke, www.zylstra.org).

6. Cloud computing makes it possible

Most of us are already familiar with cloud computing. We are using Gmail or Hotmail and share our photos on Flickr. In our organisation there is a growing use of applications such as Yammer, Pleio and Dropbox. Applications are increasingly run 'on a remote location' (hosted) by an external datacenter instead of on our own PC.
In a letter to the Lower Chamber Minister Donner explains the cloud strategy of the Dutch government.
VNG and KING (e-advisors) have laid down their visions on cloud computing and shared service centers. The main issues in the discussion on cloud computing are information security, privacy protection and (lack of) maturity among providers. In this chapter we will describe what cloud computing is, its advantages, its framework and what steps can be taken to make it possible.

6.1 Getting familiar with cloud computing

What is cloud computing?
Cloud computing is a model that provides low threshold access to a shared resource of ICT-means, such as servers, storage capacity and webservices.
They can be accessed rapidly and are up and running with minimum management activities or interaction with providers of desired solutions.[6]

The model of cloud computing has five basic features:
1. On demand self service: the local government can purchase the service in the cloud on any given moment.
2. There is a wide access to networks: the local government can make use of a computer, notebook and/or any other ICT-device such as smartphones and tablets.
3. Shared use: the necessary ICT-means are being shared by as many users as possible.
4. Elasticity: The service can grow or shrink with the need of the local government.
5. Measurable service provision: cloud service optimises the use and the required capacity, with pricing depending on use.

Cloud computing gives the local government access to a virtual store of easy-to-use ICT-means. In this way computer hardware and network components need not be purchased individually, but ICT-means provided by cloud-service-providers are used instead. Pricing depends on use. The municipal organisation can thus easily scale up or down their ICT-needs. This makes the cloud flexible. The quality and cost of service provision by the cloud-service-provider is laid down in a service level agreement.

What happens in the cloud?
Three types of services can be bought in the cloud:

6 M. van der Woude, *Het brede managementperspectief, in Praktijkvisies op cloud computing*, 2011.

Infrastructure as a Service (IaaS)
With IaaS infrastructure is offered virtually. The local government purchases the network and the storage and calculating capacity (CPU) from a provider, which provides optimal availability of the system, access to the servers and automatic back-ups. Municipal application managers have great flexibility in capacity and design of the server room. ICT shared service centers are cooperatives of a number of municipalities who share the infrastructure. Their data centers are increasingly hosted externally. This minimises the municipality's individual ICT vulnerability and the quality of service provision improves, because of greater ICT know-how and skills.

Platform as a Service (PaaS)
PaaS delivers a computing platform (cloud platform) to the local government for the use of their own applications as well as the development, testing, provision and management of new ones.

Develop fast, test and roll out in the cloud

Windows Azure is Microsoft's cloud platform on which applications are built and rolled out in the cloud, which only takes minutes. The code can be written for various languages and technologies. The Datamarket is a part of Windows Azure. We could call it Information as a Service. On a digital marketplace datasets of a growing number of organisations are being offered. These datasets can be opened up via applications of Windows Azure. Think of datasets as discussed in the chapter on open data. On the platform there is also a marketplace Applications. Applications or webservices to strengthen the own application can be bought there. An example is a pay module. Other providers such as Google and Amazon offer development platforms where own applications can be developed and rolled out simply and rapidly via the cloud, for use in the cloud.

Software as a Service (SaaS)
SaaS is the best-known form of cloud computing. They deliver software via the internet, eliminating the need for the local government to buy it themselves. Payment is only for the use of the service. The SaaS-provider takes care of upgrades, availability and access to (web)services.

Opportunities for SaaS for the CCC of Rotterdam

Ro!Entree is a service of the municipality of Rotterdam which offers people with restricted chances on the labour market possibilities for development. Together with the CCC they offer jobs in a virtual call center to people who are tied to their homes.
They use SaaS, thus increasing not only convenience, but also efficiency. The municipality does not have to invest in hard- and software and the CCC has always sufficient capacity in infrastructure. The SaaS-provider takes over management and support tasks and the CCC can now fully concentrate on its core business: optimal dealing with more than 900,000 customer contacts.

What choice do we have?
A municipality can choose where to purchase their cloud services. There are four models as can be seen in the picture below.

Picture 12. Models for cloud computing.

Private cloud
The first model is the so-called private cloud. The municipality is the sole user of the cloud on a private closed network. They themselves are responsible for the management of infrastructure and applications. Maintenance can be outsourced to a professional service provider. The advantage is that software applications can be used from the cloud and need not be installed on private computers. Scaling up and down is flexible. A private cloud is useful if specific security measures are in place, which cannot be provided by public clouds.

Workplace in a private cloud in the municipality of Zoetermeer

The municipality of Zoetermeer (121,920 residents) was the first in the Netherlands to realise a private cloud for central workplace provision for 1,100 users. This was prompted by the need to modernize work places on the one hand and the wish to raise their profile as the ICT-city in the Netherlands. In March 2010 the private cloud went 'on air'. Infrastructure is a lot more flexible now. Via "virtualisation" one server contains several others, thus eliminating the need to use separate ones for e-mail and applications for example. The municipality has reduced the number of servers from 48 to 10, which has made IT more manageable **and** affordable.

Community cloud
Community cloud shares infrastructure between several organisations from a specific community with common interests. This can be a group around a specific social problem or a supply chain problem. It can also be a group of hard-working municipalities sharing their ICT-facilities in a shared service center. Below you find an example of a community cloud being used for public/private cooperation.

Public cloud
In the public cloud software and data are securely stored on the servers of an external service provider. The cloud's infrastructure is used by various organisations. Local governments can up- or downscale in capacity or set up new servers. They need not invest in hardware or applications and only pay for what is being used at a given moment. The provider of the public cloud is responsible for sufficient available capacity.

Qiy gives users the power over their own data

Qiy (say Key) is an independent, secure and intelligent digital domain, where people can store and control information about themselves. Profiles on social networks, e-mail addresses, study results, photos, medical data, they can all be stored. The user determines what information he wants to receive and share.
Governments can use Qiy in different ways, for delivering registered e-mail for instance. The percentage error in public data can be reduced when citizens can inform the public body whether the data are correct or not.
Qiy guarantees the identity of its users. Government and citizens are now present in the same location: on Qiy

www.qiy.nl

Hybrid cloud
Finally there is the hybrid cloud, a combination of the other three models, which the local government can deploy according to its targets. In this way the organisation can determine the right balance between private and public.

6.2 Cloud computing makes the organisation flexible and is cheaper

The cloud makes working within the local government more flexible. Via cloud computing scaling up or down extra work places in peak hours can easily be organised. Data and applications can be made available online via the internet, so users can work anywhere, at any time.
The required storage capacity of data is often based on peakload plus an extra margin and possibility to expand. In practice only 20% of the capacity is used, so 80% has been purchased, but is not used. By using data storage via the cloud, you only pay for what you actually use. This is cost saving and the more organisations make use of the cloud the cheaper it gets per user.

6.3 Government moves towards the cloud

For the average consumer the use of social media and cooperation tools takes place in the public cloud. Applications such as Dropbox and Gmail are carried from the home to the work place. In some popular American cloud applications it is not clear who has access to the data. (see inset below). Building up confidence in the cloud will determine the success of cloud computing. In their sixteen-point action plan Eurocloud, the community of interests around cloud computing in Europe, pleads for a system of certification for cloud providers. This will give transparency to their processes. Certification supplies the customers of cloud providers with a joint assessment frame for the evaluation of providers[7].

Snatching data, a conflict of European and US legislation

"Companies should not start using American cloud providers, as long as the US can snatch the data on European servers with the justification of the Patriot Act (anti-terrorism legislation)", says the headline of an article by Caroline van Soelen in Webwereld. September 14, 2011.

The US and Europe are having a conflict about privacyrights of data users in Europe. Microsoft a.o. has stated that it cannot guarantee that the US government will not breach the security of data stored on Microsoft servers in Europe. In the case of an American company working in Europe, the American Patriot act can supersede European data security legislation. Even if the data are transferred to the US under the Safe-Harbor protocol (the American privacy hallmark), American supervisors can still retrieve them under the Patriot Act.

Central Government cloud

The Central Government has decided on a closed central government cloud with an architecture set up by the central government itself. This facility is to provide generic services inside the National Services. Implementation of this strategy will be shaped in two ways:

1. In the short term existing services will be transferred to the closed General Government Cloud. On the one hand there is data storage and server infrastructure, which is already in progress in the project 'Krimp aantal datacenters'(Fewer data centers). Dutch data are to remain in the Netherlands and security for all purchasers and selected applications is guaranteed. On the other hand there are e-mail, workplace, cooperation functionality and connection to database. These facilities are available via Digitale Werkomgeving Rijk (Digital Government Workplace).
2. The Central Government is also going to experiment with promising new cloud computing applications to be shared with local governments and – via secure data traffic- with citizens and companies outside the closed Central Government Cloud. Information security and embedded jurisdiction are essential factors. Together with these experiments a cost-benefit analysis will be made to gain an insight in the financial consequences. There is active cooperation with other interested parties, such as the European Union[8]. Initial ideas are:

7. Eurocloud, *16-point actionplan for cloud computing in Europe*, 2010, www.eurocloud.nl.

- Make open data available via the Open Data portal on www.overheid.nl (government website).
- More government information services for citizens and companies, such as www.overheid.nl.
- Competitions stimulating young developers to develop new applications, such as Apps for Amsterdam.
- Applications for social media, such as Pleio.

Pleio, a cooperation platform for the government

Pleio is an initiative of Ambtenaar 2.0 and the Tax department and was triggered by the need for a government wide coordination platform. In Pleio civil servants can open an online conference hall to work together with other civil servants. Citizens, entrepreneurs and organisations can also be involved. Government organisations can open a partial site without extra costs to support internal (intranet) or external cooperation. Below is an example of intranet in Pleio of the municipality of Haarlem.

Initiator Davied Berlo about Pleio on his blog:
'First: all these new media are online, on the internet. In the cloud to use a trendy term. Google, Facebook, Hyves etc. give an example: they offer free central and accessible cooperation functionalities, which are under constant development and which are being used by millions of people simultaneously. These are commercial solutions, but why wouldn't they work for the Dutch fragmented government?

Second: re-use. Every government organisation can add functionalities to Pleio. These new modules are then transferred to a kind of appstore, thus enabling other organisations to use them for their own shared site. Each functionality has to be developed only once and can be re-used many times. In this way Pleio will continue to develop and the government will save a lot of money.

Third: The government possesses an enormous potential of knowledge, ideas and energy, spread over all those sub-organisations. We want to use that potential: Specialised organisations as well as civil servants can make their contributions on Pleio. What about you?'

(Source: www.pleio.nl)

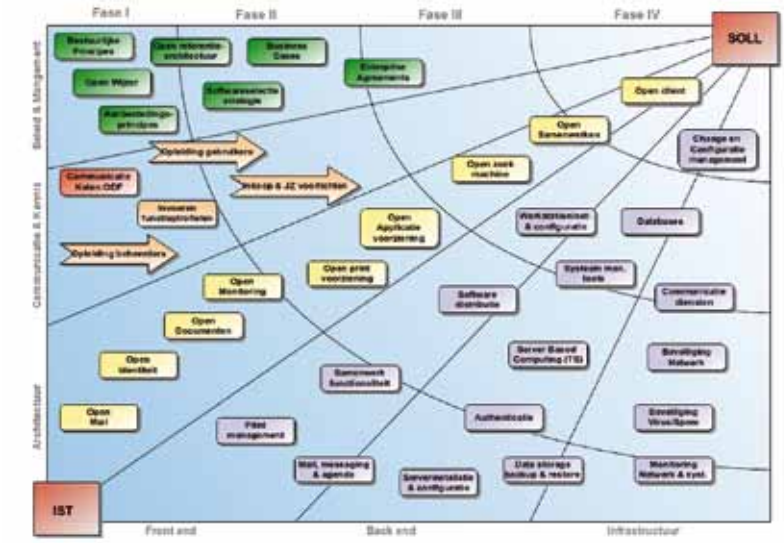
8 *Cloud Strategie*, Brief aan de Tweede Kamer, Ministerie van Binnenlandse Zaken en Koninkrijksrelaties, 20 april 2011.

The hybrid cloud according to KING
Local governments are also interested in cloud computing, provided that it is secure and reliable. KING sees this future as a hybrid cloud consisting of public cloud computing and SaaS services, offered by one or more shared service centers. In this future scenario, local governments would purchase a SaaS service to computerise their office from the public cloud via Google Apps or Microsoft Online Services, whereas primary governmental processes on the basis of SaaS services would be purchased at one or more shared service centers.[9]

6.4 The first steps towards the cloud

Take an exit-strategy as a starting point
When using cloud computing it helps to start from a so-called exit-strategy. The dependency of the provider with traditional licensed software is determined by the openness of the standards used and the possibility to exchange one pack by another, keeping the data. With cloud computing there is another dimension: portable data. What guarantees do I have that my data are available on the cloud service at any moment and in a format that I can use. (open)? By thinking about the exit strategy before choosing a cloud service, you avoid finding yourself 'locked-in' at a later stage.

Roadmap Nederland Open in Verbinding (NOiV) for an open workplace in the cloud
Selection of software often takes place on functional criteria only or an organisation simply decides to purchase the latest version of the present pack. Therefore the choice of software is not always in accordance with the organisation's ambitions and targets. When cloud computing is introduced in an organisation, tactical steering for the selection of software must be modified. The NOiV roadmap offers a framework for long-time steering. It closely follows the architectural principles of an organisation and addresses the future changes on every level without losing sight of mutual dependencies.



9. KING, *Slim samenwerken aan ICT. Cloud Computing en Shared Service Centra,* juni 2011.

I. Direction of governance: determination of strategy and policy, for example for costs, business continuity always and everywhere;
II. Tactical organisation: to make the most appropriate choices to proceed in the chosen direction of governance where functional and technological starting points are concerned.
III. Operational action: in the domain of concrete choices and modifications in the technical field – front-end, back-end and infrastructure.

Choices are then put out on the roadmap to visualise coherence and timelines.

The use of cloud computing by the government is currently a hot item for discussion. The following questions may contribute to a successful debate on cloud computing in the own organisation[10]:

1. Are our data suitable for use in the cloud?
   - Are they (privacy) sensitive?
   - Who makes use of our data?
   - What is their source?
   - What security is needed?
2. What are the legal consequences? [11]
   - Who is responsible and answerable?
   - Is information being processed legitimately? (Privacy laws e.g)
   - Is the cloud service under jurisdiction of a non-European power with special rights, such as the American anti-terrorist law (Patriot Act)?
   - What happens, if the provider goes bankrupt?
3. How is data portability guaranteed?
   - What guarantees do I have that I can withdraw my data at any given moment?
   - Does the service provide my data in an open format?
4. Is the quality of the service provision warranted?
   - What 'service levels' are in place now?
   - What 'service levels' do we need?
   - Which cloud services can provide them?
5. What are the consequences for inter-operability?
   - Does the cloud service make use of open (web) standards, so that I can access the service via various devices?
   - Does the cloud service comply with the NEN Norm for Cloud Computing? [12]
6. Are my I- and O-colleagues ready for change?
   - Do we possess enough know-how and skills to manage a cloud architecture?
   - Can we buy lacking know-how and skills?
   - Do we possess the know-how and skills to steer cloud services?

---

10 Center of Digital Government, Clouds Rolling In, The Forecast Calls for Increased Agility, Stability and Performance as Cloud Computing Comes to State and Local Government, Folsom, 2009.

11 V.A. de Pous, Juridische aspecten van de cloud-dienstenmatrix, in Praktijkvisies op Cloud Computing, 2011.

12 ISO/IEC JTC1 Sub Committee, Distributed Application Platforms and Services (DAPS), http://www.iso.org/iso/iso_technical_committee.html?commid=601355.

7. Dear administrators and managers, give room and let go!

What we came across in the preceding chapters:
- We concluded that we are in a transition of thinking and acting today to thinking and acting tomorrow.
- This transition offers opportunities for transparency, trust and a compact government.
- Crowdsourcing, -funding and co-creation are the new approach in participation and this calls for a different role of the local government.
- We had better realise that we are in transition so that we can view and assess practical examples from that perspective.
- We were given tools to introduce new means such as webcare and social media and also to release open data and make choices in the application of mobile technology and the cloud.

Ten pieces of advice

What does all this mean for the here and now? What does it mean for us in our political and civil roles with, within and in particular coming from our organisation? There is a growing awareness of an undercurrent. Yet so far we have mainly dealt with today's challenges. This publication contains many examples, but it is far from being a blueprint. There may never be one.
The challenge is to remain aware of the undercurrent and use the advice and examples in this publication to start up. As a consequence the organisation will realise its hidden potential.

Below you will find ten suggestions to make optimal use of this source. They are meant for those in the organisation with a positive attitude towards the new thinking and acting. We call on administrators and managers in particular. Today is the startingpoint! And it is today, that pioneers come up against the restrictions of the present structures.
We appeal to you: give room, claim room and let go!

1. Continue your efforts to create a strong basis
To grab tomorrow's chances now, it is important to speed up your efforts to create a strong basis. In the coming years operation NUP will support local governments in implementing the i-NUP. Pre-conditions are met sooner with open standards and the cloud. KING has mapped out an innovative path along which governments can accelerate the creation of a strong basis by means of cooperation, standardisation and cloud-applications. There will also be room for tomorrow's thinking and acting.

2. Take a role in the film
Start by listening, be aware of where the conversation takes place, what is discussed, who are talking and what is the impact. Only then you can enter the dialogue. Webcare is a useful tool, social media monitoring is the instrument, even if in the initial stage it is restricted to listening. Administrators can also hear a lot! Experiment with new means and the directive, facilitating and letting-go role of the local government. Also internally: asking a question on Yammer will give a much quicker response than planning a meeting.

The beckoning perspective according to KING: the basic municipality

- Local governments admit that they carry out their tasks in a similar way, which results in a national standardisation and uniformity. Municipal architectures have become more and more standardised and so has their information provision. It is mainly based on subscriptions: *the basic municipality.*
- The common facilities offer a complete solution, but leave room for own priorities, local policy and special circumstances in each local government. Integration problems have disappeared, because the subscription covers most of the links.
- This makes local governments independent of the fragmented market supply and cooperation is used to realise maximum demand-drive. KING steers functional and central technical management, so providers of the most commonly used applications can be put under pressure to provide links.
- Citizens notice that the local government no longer asks for data already in their possession and that they have adopted new developments such as data vaults and individual privacy management.

Do use the civil servants' energy to move from unconsciously incompetent to consciously incompetent, so that the urgent need for transition becomes tangible. Ambtenaar2.0 and 'Het Nieuwe Werken' will support you. Try and make your staff experience what tomorrow's thinking and doing is all about, so that your organisation becomes part of the transition. 'The New Workers' will help you to organise resources and behaviour and subsequently enter the dialogue with society.

3. Create room
Create room for tomorrow's thinking and acting. Room for experimenting with new means and roles as well as in budget. Create room to make mistakes and to correct them. There will be heated discussions, but that will keep executives on edge. Risks are limited by the oath and existing protocols for communication. The organisation will grow in the direction of tomorrow and be able to effectively apply future roles and resources.

4. Facilitate the staff
The transition is bigger than the organisation. It cannot be ignored. Innovators are already there: Embrace this new energy and make 'Het Nieuwe Werken' possible (bring your own device, work at a chosen location).

5. Use resources from the line in order to get access to more resources from the crowd
We have already seen that new possibilities lead to more efficient processes and generate a new source of energy (the crowd). Transition is a process concerning the whole organisation. New developments such as webcare and mobile techniques for the release of data are relatively cheap to realise, so it makes sense to pay for them from the line. The expenditure is extra and not planned in, but small budgets will get you a (small) role in the film and will lead to the release of structural resources. Do not ask for a business case; this will only kill the discussion. Return on investment, on euros as well as on transparency and cooperation will prove your case.

UWV-clients help each other on 'netWORKsquare'

UWV (Workers Insurance Authority) pays benefits to more than 1,2 million people and due to recent government cuts is currently developing a new system of service provision. For a pilot they selected a group of highly educated unemployed in and around Amsterdam and Utrecht.

To determine the needs and possibilities for interaction of this targetgroup an online community was created under the name of' netWERKplein'. On this 'square' there are discussions and course modules are offered with online material on three major themes: networking, profiling and applying.
Webinars (online seminars) deal with exchange of know-how. The persons who did not benefit from this pilot, returned to the standard service provision.

New initiatives were taken by the group themselves: there is now an application club at Seats2Meet and a forum where people can comment on each other's CV or LinkedIn profile.

To turn this pilot into a permanent service, UWV has expressed the need for flexibility ; the concept has to be constantly adapted to new technical developments and the needs of the target group.

6. Take care of pre-conditions
Make use of national and co-operative bodies to prepare the organisation's infrastructure for the future. Think of realtime opening up of open data, managing customer contact via social networks and mobile technology (see inset City Surveillance Rotterdam). Open standards and standards for communication between organisation are a requirement, not only inside government domain. Ask the Central Government to take care of pre-conditions, such as a digital vault for personal data, the Rijkscloud and an app-architecture. Take care of the legal problems around open data. And closer to home: prepare your own architecture for the release of open data, interaction with mobile technology and working in the cloud (with private devices at the most convenient location and time).

7. Reflect on changing leadership roles
In society those with the largest number of followers have the greatest influence. The same is true on the work floor. Networks are increasingly important and can rapidly mobilise the crowd. Transparency will increase as well. Staff-members will rank achievements of their colleagues as well as their managers. In the books by Menno Lanting Connect and Everybody a CEO this theme is provocatively discussed. Required reading material for the leaders of today **and** tomorrow.

8. Public-private as the outboard motor
Public-private cooperatives can help today's transition to be realised tomorrow. It fits in with the development towards a more compact government and a growing sense of social responsibility among entrepreneurs. They might be even better suited than the local government to carry out public tasks.

The local government is not the only party to initiate these cooperatives. Companies in the creative sector are well-suited to help the local government to introduce these new means

effectively. Companies who apply open data in the public domain and are able to make them visually attractive and easy to use. These companies facilitate society and as such the local government. Embrace, stimulate and facilitate these companies, as they are far more flexible than the organisation with its present structures.

In this stage of the transition it is difficult to establish business models, both for public and private parties. The first step may consist of 'supplying' instead of working with a signed contract; the second step requires a payment contract. The entrepreneur will need creativity and patience.

Municipality of Eindhoven activates more citizens, increases satisfaction ***and*** *saves direct costs*

BuitenBeter (=BetterOutside) is a mobile app which enables residents to report a problem in their street or neighbourhood directly to the local government (www.buitenbeter.nl). They take a picture and BeterBuiten sends it to the municipality concerned, together with the geo-data. If the municipality has linked its reporting system directly to BuitenBeter, the report need not be registered by hand and status information can be shared directly with the resident. All municipalities in the Netherlands can receive their residents' BuitenBeter reports. A number of them have already installed a link with their own reporting systems.

In April 2010 BuitenBeter was launched in cooperation with the municipality of Eindhoven (214,000 residents) and this scoop got a lot of publicity worldwide. After only 2 months 5% of all reports came from BuitenBeter users and it has risen to 9% by now. Based on photo and geo-tag, supervisors can make an action plan right away, which saves time and makes communication with sub-contractors more transparent. "We save tons of money in the management of public space", says the Manager for Public Space Paul Smeets. Besides, what we do is highly appreciated, as we were told by the citizens 'panel.

Neelie Kroes: "Simple apps like BuitenBeter, in my own country, The Netherlands, show us how it can be done. Here citizens have built an inventory of potholes and broken street lamps, for example, that allow the government to more easily visit and fi x. The technology and the citizen enthusiasm are the easy bit. The real challenge is in changing the mindset of public officials to catch and ride this digital wave."

(Source: My vision for eGovernment, and how to make it real, 15 December 2010).

The power of BuitenBeter! lies in co-creation and communication

"We consider it important to give concrete shape to our social responsibility. Innovation is a shared process. We may have taken the initiative to develop BuitenBeter!, but the local governments will have to act on the reports that they receive. We have developed links on the basis of StUF with various providers and together with the residents we are still investigating how to make the app best suited to their needs. The power lies in collective innovation, always with the motto 'from outside to inside', 'focus on citizen'and 'less is more'."

(Jens Steensma, managing director BuitenBeter).

9. Maybe you would rather not, but…
You have to realise that writing a new project plan or business case are nothing more but pre-conditions to play in the same film. It sharpens the mind, but you had better share your emotions and questions with the crowd. They will help and do so faster and with more enthusiasm than you had expected!

10. … do it anyway.
Open a Twitter account, go on Facebook, find your network on LinkedIn. Then see what happens. Follow the subjects that are of interest to you. Learn what is going on around you and who is doing what. Look for simple datasets together with colleagues and find out if you can release them. Try out the functions of Pleio together. Spend an evening reading the information on Ambtenaar 2.0. Put a question on LinkedIn and get involved in a discussion. Experience what is does to you and what are the restrictions.

The municipality of Almere has things up and going

In the municipality of Almere (ca 192,500 residents) one of the main roads (2600 cars per hour) had to be partially closed. In an effort to reduce the number of cars by 15%, the residents were informed by regular mail, but also by means of internet, e-mail, videos, Twitter and Facebook.

The supervisors who were daily present on location (Veluwedreef) followed a workshop social media and were taught how to work with a Twitter account. Tweets were to run for a maximum of four hours and followers would be informed via photos. If a request for action came in, measures were taken right away. Partitions were reinforced and wrongly placed bollards removed.

Almere has decided to continue on this road and communication via social media will be further developed after this project. Workshops and better dialogue with the residents will lead to even better results in the future.

Finally
It is now time for a new civic vision. One in which the new modes for transaction and interaction between a local government organisation and its domain (citizens, the business community, institutions) are laid down. The BurgerServiceCode, which was drawn up a few years ago, was a first step. It was in fact ahead of its time, because the code of conduct and quality standards defined the residents not only as clients of service provision, but also as active participants (Dutch citizens). In such a new civic vision (to be drafted by the local government) facilities can be included next to expectations on mutual relations. Without sufficient skills and adequate support, the dialogue will remain one-sided.

Come forward and engage in dialogue today!

Colophon

A public-private swarm of 100 days
This publication is the outcome of a swarm of committed public and private players. Using new media they have created a document whose contents not only explain the latest developments in technology and society, but are to inspire the reader to start working with them. They all worked from their own locations at times that suited them.

Three parties took the initiative. The Topkring Dienstverlening Gemeenten, consulting firm HowAboutYou and the Werkgroep Antwoord©. They formed a group (with members such as the Dutch Association of Civil Affairs, the Quality Institute of Dutch Municipalities and the Association of Directors of Public Services, supported by M&I/ Partners), when working out the significance and deployment of social networks, mobile technology and open data for local governments. They were joined by the Ministry of the Interior and Kingdom Relations, the Dutch program Open in Connection and the Municipality of Rotterdam. Each of the parties contributed their own expertise, network and available means in order to represent their own interest groups. The municipality of Amersfoort made it possible for the swarm to physically meet in their council chamber. In these two meetings knowledge was shared and concrete steps were taken for the writing of this publication.

Representatives of the various parties were responsible for the editing. They were able to finish the job in three months in spite of the summer spell, hectic times within their own organizations and geographic spread of the swarm. Using social media has accelerated and simplified the process. Know-how was acquired and shared on Pleio and LinkedIn. The project team, which supervised the project, worked in the cloud: They wrote in Google Docs and shared documents via Dropbox. Phone and e-mail were frequently used and several discussions were held via Skype. Physical meetings took place at any available work place. This could be a roadside restaurant, at Seats2Meet or in the office of one of the editors. Those concerned in second line were mainly informed about the process via Twitter. Energy and enthusiasm were almost tangible.

Everyone was happy with how a swarm had contributed to achieve something in a short time. Tempo was kept up and existing structures had temporarily moved to the background: refreshing and inspiring. The role of the project team as the linking supervisor was important until the very end, in particular with respect to the coordination of adjustment and decision making. It was here that the restrictions of current government structures were most acutely felt. (“My system manager does not allow me to open the Dropbox”). It will only be a matter of time, however, before meaningful dialogue will replace the familiar one-way system.

On behalf of the swarm the project team would like to give thanks to all the people that provided examples, speakers on our conferences, editors and their supporters.

Our special thanks go to:

Tony Bosma	Ordina / Extend Limits
Mark Dijksman	nClude
Karin Duijn	NOiV
Gert Goossens	OptiComm
Harold Janssen	De Limes
Jan de Kramer	K2O Organisatieadviezen, Digital
Mike Lee	Appsterdam
Carl Lens	Verbeterdebuurt
Theo Loth	Eurocloud
Marco Maréchal	Connected/Connecting2day
Jens Steensma	Buitenbeter!/Yucat mobile business solutions
Paul Suijkerbuijk	HowAboutYou/ICTU
Otto Thors	WE-Government
Bart Tunissen	Waag Society
Lidwien v/d Wijngaert	Universiteit Twente
Joost Zijderveld	Gemeente Amersfoort
Ton Zijlstra	www.tonzijlstra.eu

Editors

Jurgen Bomas	VDP/Gemeente Haarlemmermeer
Harro van den Brink	Gemeente Zoetermeer
Willy Groenewold	Gemeente Rotterdam
Erna Hagen	Gemeente Apeldoorn
Karel van Hengel	Werkgroep Antwoord©/Gemeente Dordrecht
Mirjam Kalverda	Ministerie van BZK
Dick Laan	Gemeente Enschede
Sander Mooij	KING
Matt Poelmans	HEC
John Oldenhuizing	ICTU
Simon Rijsdijk	NVVB/Werkgroep Antwoord©/Gemeente Etten-Leur
Wendelmoet Rotmans	Gemeente Terneuzen
Daniel Rouw	Gemeente Terneuzen
Enno Soeren	Gemeente Maastricht

Project team

Ted Dicks	M&I/Partners
Ewoud de Voogd	HowAboutYou
Matthijs Wijga	Gemeente Rotterdam

Production

Dianne van Essen	Bureau KAESS
Joost van den Broek	Studio Markant
Kjeld de Ruyter	Puntspatie [bno]

Translation

Ine Martens	Vertaalbureau Martens

Explanation of terms

Social media is a generic term for various online platforms where users - without or with minimal interference from professional editors - generate the content. *Interaction* and *dialogue* are the key words. Examples are *Twitter, Facebook, Hyves* and *LinkedIn.* Social media can be external as well internal, i.e. organisation-oriented varieties such as *Yammer* and *Alfresco.*
For listening to dialogues on social media an organisation can set up *webcare*. Webcare is the pro-active search for locations where discussions are going on about issues concerning the organisation and subsequently – often controlled - enter the dialogue with these participants
In c*rowdsourcing* the public is invited to answer questions or solve problems (online as well as offline). Create something together with the public, often via social media, is called *co-creation* and collecting financial means in this way is *crowdfunding*. These crowd-initiatives are carried out over a certain period of time and are often referred to as *swarm.*

Mobile internet is internet that can be used via *mobile devices*, such as a mobile phone. The technical functions of mobile devices are becoming more and more sophisticated, e.g. GPS, permanent internet connection, one or more cameras (also video), a gyroscope and a 3D-compass. Storage capacity keeps expanding and a mobile phone has a lot of different programs: applications or apps. That is why it is called smartphone. Apple's iPhone is a well-known example. Smartphones, as computers, have different *operating systems*. A PC often works on *Windows*. A smartphone has *IOS, Androïd, Blackberry and Windows Phone 7.0*. The apps can be obtained (for free) in so-called appstores, such as Apple or Marketplace of Windows.
Mobile websites are websites that are easy to use on a mobile phone. They are suitable for a small screen.
The *tablet* is another frequently used mobile device: a thin, flat computer operated via a touchscreen. A well-known example is the iPad. In this publication all terms used above are covered by the term *mobile technology*, while *data traffic* is the flow of data released by mobile devices.

Open data refers to unrestricted release of public information files. In practice this means that these files are released as open standard files. These files can be opened with free software. The data have to be complete and original, so no summaries or edited parts. Open data are public and *freely accessible*, and as such they are easy to find. The use of these datafiles is not subject to any restrictions This is called *Creative Commons*. It means that the information can freely be used for all applications, provided that the source is named.

Cloud Computing makes it possible to provide configurable computer tools on demand (such as networks, servers, storage, applications and services). It is a fast and easy method with minimal management effort or interaction of a service provider.

Outside the scope of this publication, but important for the context are ‘Het Nieuwe Werken’ and ‘Ambtenaar2.0”. ‘Het Nieuwe Werken’ is a movement trying to stimulate working on private devices, not restricted by location or time (and thus more flexible). Themes such as *Bring Your Own Device, Easycratie* and *Deelstoelen* are part of this movement. ‘Ambtenaar2.0’ is a movement of civil servants who want to implement these developments into their own worksphere, using social media and ‘Het Nieuwe Werken” to do so.

Gemeente Alphen aan den Rijn

CIBG Ministerie van Volksgezondheid, Welzijn en Sport

Amersfoort

Topkring Dienstverlening Gemeenten

APPSTERDAM

Gemeente Nijmegen

ORDINA

OptiComm

NVvB Nederlandse Vereniging voor Burgerzaken

Verbeterdebuurt

VDP Vereniging Directeuren Publieksdiensten

DeLimes

NOV Nederland Open in Verbinding

UWV werken aan perspectief WERKbedrijf

BuitenBeter

nclude

M&I/Partners/ adviseurs voor management en informatie

KING Kwaliteits Instituut Nederlandse Gemeenten

Drachten Smallingerland

waag society

EuroCloud Netherlands

we-Government.nl

expertise centrum

Werkgroep Antwoord©

Servicecentrum Drechtsteden

gemeente Peel en Maas

Digital groep

Gemeente Rotterdam

HowAboutYou

Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

OPENINGUP

The Interreg IVB North Sea Region Programme

Topkring Dienstverlening Gemeenten

Werkgroep *Antwoord*©