

User-Driven Services

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Who am I?

- ◆ Associate Professor, Vestfold University College, Norway.
- ◆ Have worked on public sector innovation, e-government and e-democracy since 2003 (10 year anniversary).
- ◆ Background in systems development.
- ◆ Have experienced my share of poorly designed services.
- ◆ External expert for EU-funded cc:eGov project, and partner of EU-funded NET-EUCEN network.

Aim of this keynote

- ◆ “User driven services” or “user centric services” is a concept.
- ◆ The main idea is user involvement in design, development and implementation of the services.
- ◆ The concept is used for different levels of detail.
- ◆ Sometimes services rely on information and communication technology, but not always.
- ◆ I will discuss user driven services on different levels, ending up with services offered on the web.

New Public Management

- ◆ Ever heard about “New Public Management”?
- ◆ UK, New Zealand, Australia, Scandinavia.
- ◆ Basic idea: Use principles from private sector in public sector.
 - ◆ Autonomous units. Competition.
 - ◆ Professional management (more space for managers).
 - ◆ Indirect control (goals, results, measurements, reports).
 - ◆ **User/customer focus.**

User/customer perspective

- ◆ Citizens as customers, not clients.
- ◆ Not only business perspective, also human rights.
- ◆ Customers can choose, often through competition.
- ◆ Empowerment and inclusion.

User centricity

- ◆ Users have requirements and expectations.
- ◆ “We are here for the customer”!
- ◆ But this does not imply “The customer is always right”.
- ◆ Listen, understand, respect.
- ◆ Collaboration and dialogue, even co-production.

User centricity

- ◆ Efficiency is still a goal. But efficiency is often sought by the customers as well. (Example: Tax return statements).
 - ◆ Electronic submission was a winner
 - ◆ Silent consent is even a bigger winner
- ◆ Competition, users can choose.
- ◆ More power too users, more direct influence on service selection and provision.

Legislation

- ◆ Today, user centricity is often embedded in legislation.
 - ◆ Example 1: Norwegian Planning Act
 - ◆ Example 2: Norwegian Discrimination and Accessibility Act
- ◆ Practical examples
 - ◆ Individual plan (for certain groups of clients)
- ◆ OK to use money – it is a matter of people on the border of the society

Legislation

- ◆ Not only requirements and expectations.
- ◆ It is also legal rights.

Three pillars

- ◆ Services should be available and accessible
- ◆ Services should be customized/customizable
- ◆ Services should be coordinated

Available and accessible

- ◆ Barriers to service use
 - ◆ Formal/legal barriers
 - ◆ Economic barriers
 - ◆ Distance/geography
 - ◆ Language/culture/competence
 - ◆ Physical barriers/lack of aids
 - ◆ Waiting line
 - ◆ Motivation

Now I can talk about ICT

- ◆ What is needed to be a digital citizen?
- ◆ “VISIT OUR WEBSITE”
- ◆ Some feel excluded when they read this message.
- ◆ They don't have the opportunity to visit any website
- ◆ (Example: IPAD's in the local councils)
- ◆ Benefits vs. transaction costs (Example: electronic banking)

Preconditions for participation

Technological infrastructure

Access to technology

Accessibility

Education and training

FOS/Privacy/FOI (legal)

Privacy/Identity/Anonymity (tech)

Trust

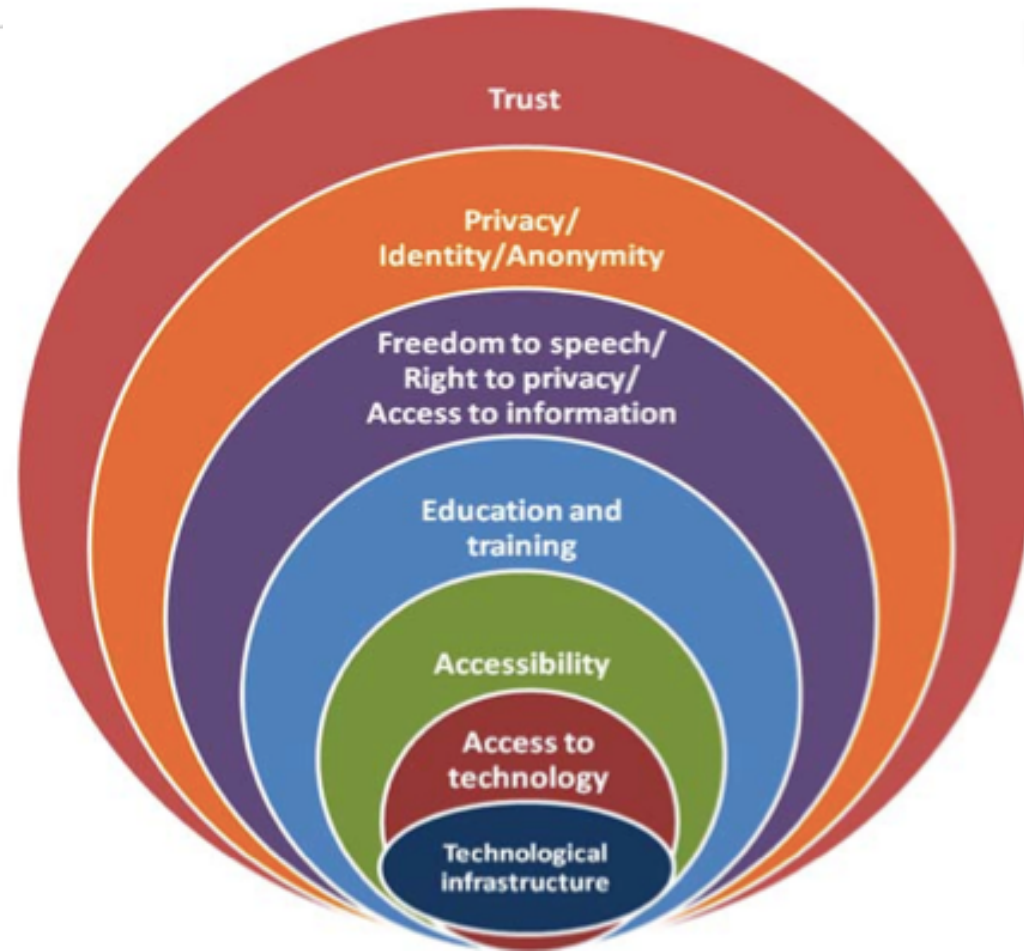
Preconditions for user participation and involvement

This model was presented at ICDS 2010

Berntzen, L. & Karamagioli, E.

Regulatory Measures to Support eDemocracy

IEEE Computer Society



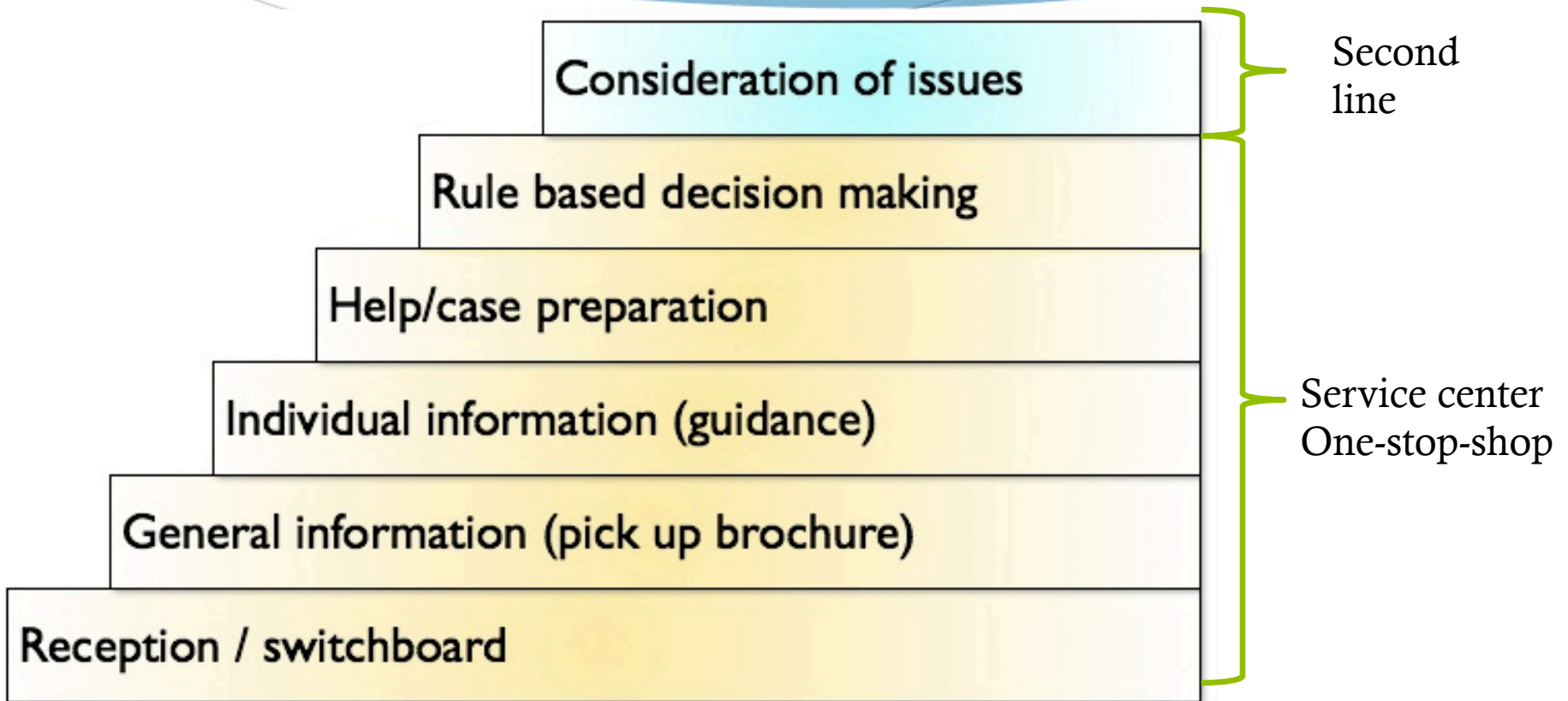
Customizable

- ◆ One size fits all IS WRONG! Need for segmentation, often down to individuals.
- ◆ Custom made for each individual based on requirements and expectations.
- ◆ Individual plan. (not ICT). Funeral.
- ◆ Portals where content is based on knowledge of the individual and where the individual can configure the content provision him/herself.

Coordination

- ◆ “We walked from one office to the next the whole day, and ended up where we started”.
- ◆ Good workflow, good processes (supply chain management).
- ◆ One-stop-shop.
 - ◆ Municipal service center.
 - ◆ Citizen portal.

Coordination



Channels

- ◆ Services are provided through channels.
- ◆ Channels may be important in certain contexts.
- ◆ Example: Commuting with a train..

User centricity

- ◆ Can it be done without users?
 - ◆ Yes, but it often doesn't work.
 - ◆ Users know things about their own situation.
 - ◆ Users are competent.
- ◆ Deeper reason
 - ◆ Empowerment
 - ◆ Active, not passive
 - ◆ Participation
- ◆ (Examples of participation: Planning)

What is user driven?

- ◆ Collaboration, participation
- ◆ Users may be co-creators of the service
- ◆ Adding their wishes and expectations
- ◆ But also their competence
- ◆ Mindset

Citizen centric

- ◆ What is a citizen centric service?
- ◆ The service is made in such a way that the needs of the citizens are put first.
- ◆ Often eGovernment services have been made to fit the needs of the administration
- ◆ Common goals of the administration:
 - ◆ Improve quality
 - ◆ Increase efficiency

Incompatible goals?

- ◆ The goals of users and administration are not necessarily incompatible, but they may be.

Example: Care and assistance

- ◆ Government is obliged to provide care and assistance for disabled citizens. The amount of assistance is decided upon based on the type and degree of disability.
- ◆ To optimize the use of resources, the typical approach is to make an optimized schedule for the caretakers, not for the citizens.

Example: Care and assistance

- ◆ Such schedule may not fit the personal requirements of the citizen. They want to have their say on what assistance is provided at what time.
- ◆ The concept is called user managed personal assistant. The user manages the time of the assistant, the user is has the power of an employer.

Example: Care and assistance

- ◆ One typical example: Young disabled citizens.
- ◆ Offer: A wheelchair trip to the park
- ◆ Requirement: Wants to meet friends on a café on Friday evening.
- ◆ What is citizen centric in this context?

Back to the core..

- **User-centric eGovernment focuses on the needs, wants and limitations of the users.**
- Two perspectives of eGovernment:
 - Administration perspective: Improve internal efficiency and/or quality of the work performed by the government organization
 - Citizen perspective: Making life easier for the user/citizen
- It is not necessarily a conflict between the two perspectives
- **But experience shows that solutions often are not optimal from the user point of view**

Electronic Services

- ◆ Many eGovernment services are regarded as successful
- ◆ But what is successful?
 - ◆ Popular? Highly used?
 - ◆ Saves time for the administration
 - ◆ Saves time for the user
 - ◆ Improves quality
- ◆ Example: Applying for kindergarten (highly successful service in my country).

eServices example

- ◆ But eServices are not always successful..
- ◆ (Sometimes eGovernment goes wrong..)
- ◆ **The forms may be effective for the administration, but not necessarily for the user.**
- ◆ Voluntary organizations can apply for a grant to support their activities.
- ◆ Old approach: Fill in an paper based application form, append budget and report on how previous grant was used. Staple together, put in the mail.

eServices example

- ◆ New approach: Use electronic form. Fill in the budget data and the report data and submit online.
- ◆ Problem: All data needs to be copied into the electronic form, more work for the applicant.
- ◆ (And in this particular case, if you lacked some data, you would have to start all over.. Due to timeout..)

eServices example

- ◆ If local government had collaborated with the users, they may have found that this new electronic solution was actually a bad idea.
- ◆ It creates more work for users/citizens, and does not lead to efficiency gains in the administration.
- ◆ (The information was actually transformed into an e-mail sent to the relevant office)

Citizen-centric approach

- ◆ What is the main point here: To make good citizen centric solutions it is necessary to get the users/citizens involved in the design of the service.
- ◆ But we should also have some objective criteria for user-centricity, like:
 - ◆ Efficiency gain for the user
 - ◆ Quality improvements of service delivery

User-centered design

- ◆ User-centered design is a methodology/philosophy that involves users at all stages of the design process.
- ◆ Not only based on assumptions of designers/developers, but validated by real users in real situations.
- ◆ The goal is to make solutions better – for the users.
- ◆ User centered design takes into account:
 - ◆ Audience (who, demographics of users)
 - ◆ Purpose (what)
 - ◆ Context (under what circumstances)

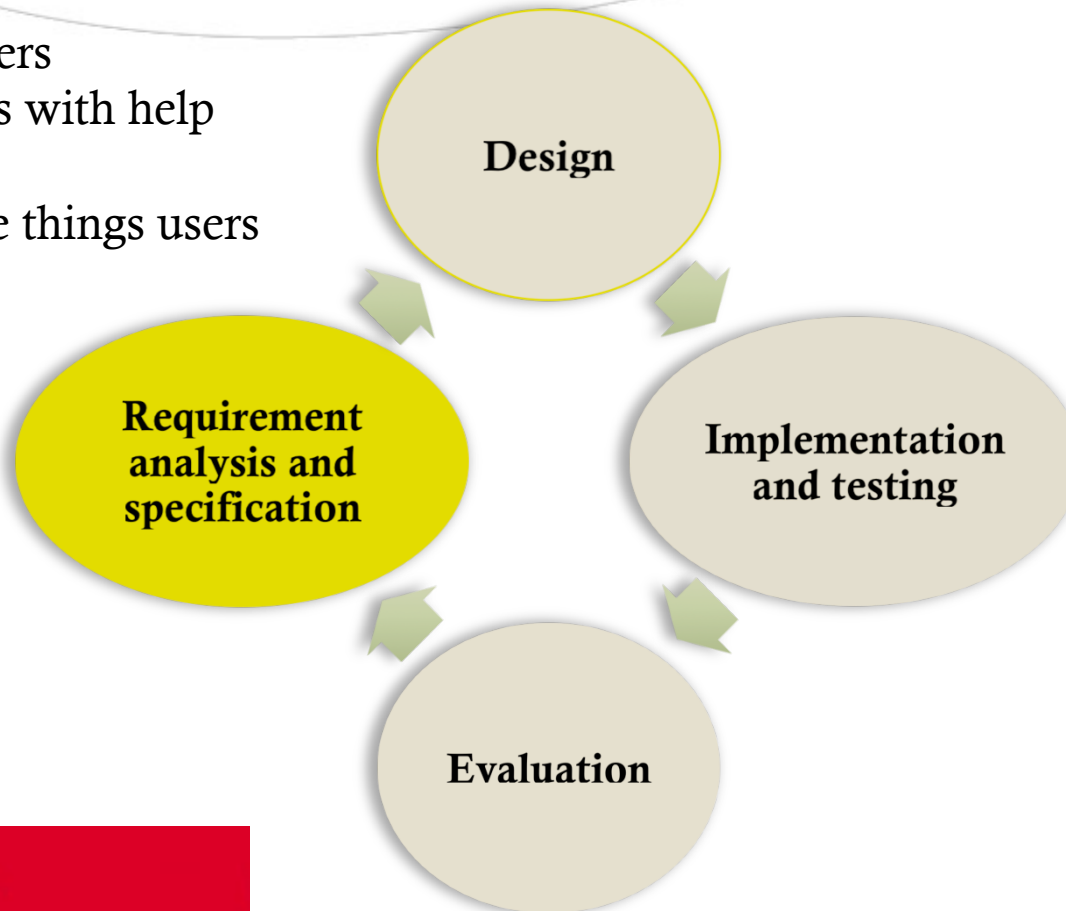
From theory to practice

- ◆ Different levels of user involvement:
 - ◆ Political level (user organizations speaks for all)
 - ◆ System level (some users speak for the rest)
 - ◆ Individual level (the user speak for him/herself)

User participation

Requirement analysis and specification

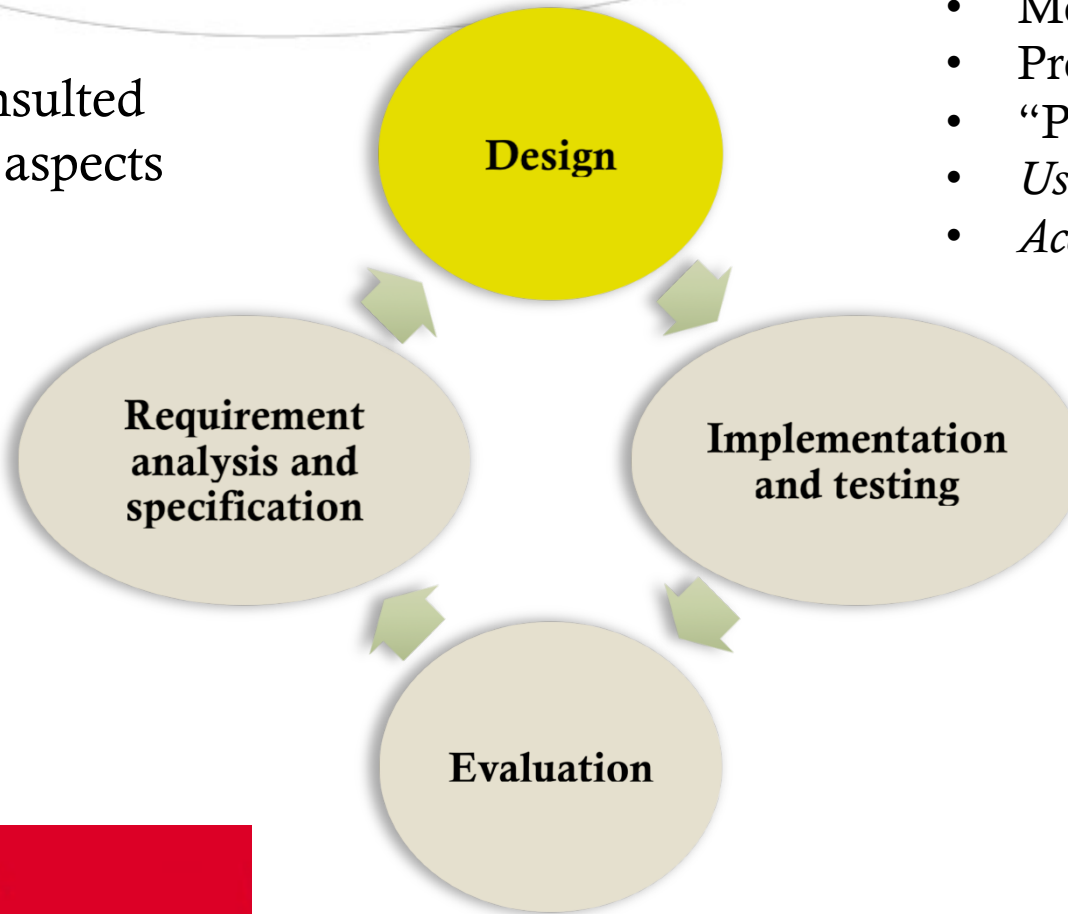
- 1) Identify the users
- 2) Build scenarios with help from the users
- 3) Use cases – the things users will do..



- Interviews
- Focus groups
- Observation
- Mock-ups

User participation Design

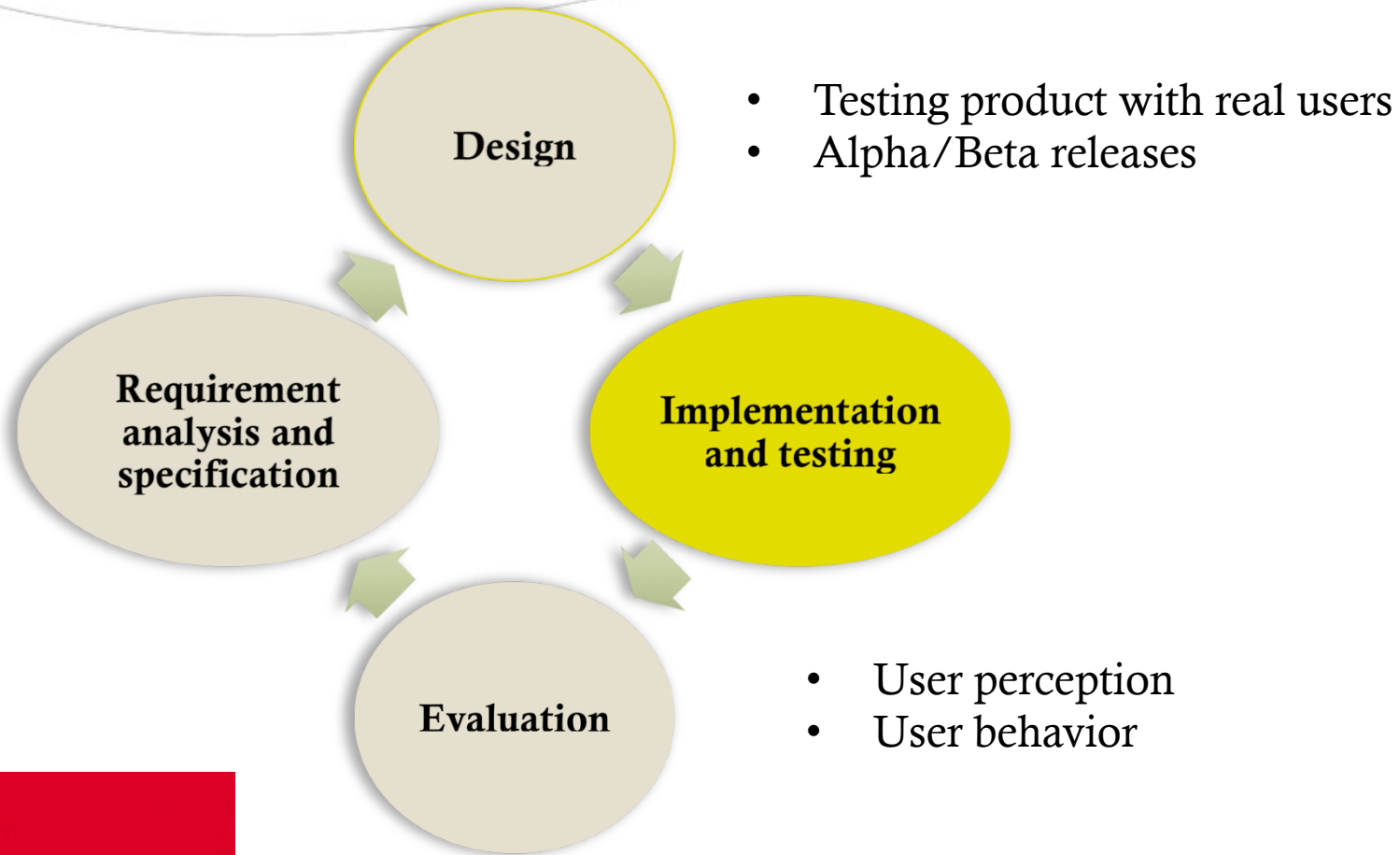
Users are consulted
on all design aspects



- Mock-ups
- Prototypes
- “Proof of concept”
- *Usability testing*
- *Accessibility testing*

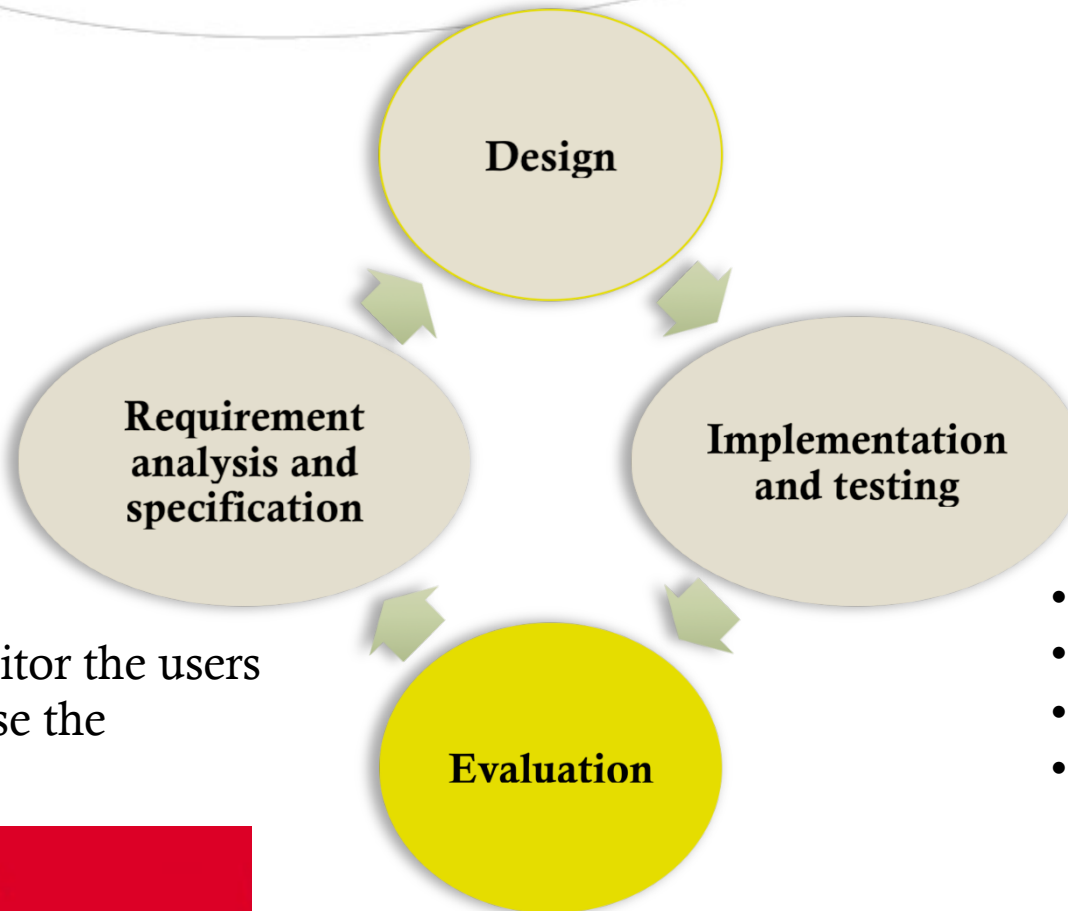
User participation

Implementation and testing



User participation

Evaluation



Frequently monitor the users and how they use the product.

- User feedback
- User surveys
- Interviews
- Analysis of use

NET-EUCEN

- ◆ NET-EUCEN focuses on "user-driven services", those that actively involve the people using them in service design and delivery. They entail drawing upon the expertise, views and perspectives of service users to complement the skills and input of service professionals. The user-driven services go beyond typical user consultation or user representation thanks to the involvement of public service staff and users working together to determine what services are provided and how. (NET-EUCEN home page)

NET-EUCEN

- ◆ The NET-EUCEN thematic network is developing a framework to define and measure user-centric eGovernment services.
- ◆ NET-EUCEN definition of user-centric: Fulfillment of three stages of user involvement:
 - ◆ (1) User Involvement in Co-design stage: Involving users in development of ideas and concepts. Starting from users' needs and requirements without technological constraints.

NET-EUCEN

- ◆ (2) User involvement in development and implementation stages: Sample/group of users engaged in first implementation of the service in order to evaluate its features and continuously discuss with developers to optimize the outcomes and suggest improvements and/or changes.
- ◆ (3) User involvement in deployment and running stages: Users validate service through user testing of flexibility and interoperability. Test results are used to customize service according to changes in political, economic or social environment.

NET-EUCEN

- ◆ A preliminary study on the ePractice portal and other international relevant cases has been carried out revealing that very few cases are fully aligned with this definition, but a deeper analysis is mandatory to actually define the “level” of user centricity adopted by a service.

NET-EUCEN

- ◆ Measurement is based on relevant indicators from CapGemini eGovernment benchmark study, and
- ◆ 4 new indicators, one for each stage mentioned earlier + one for user-friendliness and degree of satisfaction

From theory to practice

- Some advice based on practical experience from working on design, implementation and evaluation of public sector web sites:

Some general principles

- ◆ The users should not be expected to know the organizational structure (one-stop-shop)
- ◆ The user should be able to drill down to the appropriate level of detail to fit his/her needs
 - ◆ Example: Government regulations are often complex, and not easy to understand for all citizens. An easy-to-read introduction highlighting common questions should be provided (after that you can drill down).

Some general principles

- ◆ Accessibility should be in place
 - ◆ Many users have different kinds of impairments
 - ◆ Logical structure of the web site
- ◆ The user should be able to customize his/her user interface according to own needs.
- ◆ The user should be able to choose an appropriate channel of communication

Accessibility testing

- ◆ Web Content Accessibility Guidelines
- ◆ WCAG 2.0
- ◆ EGOVMON – Automatic Assessment of Web Pages
- ◆ <http://accessibility.egovmon.no/en/pagecheck2.0/>

(DEMO – hopefully 😊)

Practical example

Electronic forms

- ◆ Best practice for user-centric form-based solutions (1)
 - ◆ Interactive submission
 - ◆ Accessibility
 - ◆ Prefilled content (based on what is already known)
 - ◆ Use data from last visit
 - ◆ Validation of fields where appropriate
 - ◆ Help information available

Note: Saving form data from last visit may have some privacy implications. I do not recommend storing data of high value to hackers, e.g. health information or credit card numbers. It is always a balance between efficiency for the user and the need for privacy.

Practical example

Electronic forms

- ◆ Best practice for user-centric form-based solutions (2)
 - ◆ Meaningful error messages (in user's own language)
 - ◆ For multi-page forms – possibility to move back and forth
 - ◆ Possibility to provide user feedback (feedback button)
 - ◆ The possibility to complete form after a break

Practical example

Customization

- ◆ Users should be able to tailor the content of their personal web-page on the portal.
- ◆ “One size does not fit all”
- ◆ The web portal should make an initial effort based on known information, such as:
 - ◆ Geolocation
 - ◆ Age
 - ◆ Work
 - ◆ Interests
- ◆ Some information can be collected throughout the visit.

Information retrieval

- ◆ **Users need to find what they are looking for with minimum effort.**
- ◆ Findability:
 - ◆ Provide a simple to use search mechanism
 - ◆ Using the language/words of the user
- ◆ Menu structure
 - ◆ Logical structure of the web site

Information retrieval

- ◆ How to make better solutions?
- ◆ Search expression analysis (and Google Analytics)
- ◆ Click analysis
- ◆ Exit interviews
 - ◆ What was the purpose of the visit?
 - ◆ Did you find what you were looking for?

Conclusion

- 💧 User-centricity is about a mindset.
- 💧 **The needs, wants and limitations of users must be recognized**
- 💧 NET-EUCEN – A network for User-Centric eGovernment <http://www.net-eucen.org>
- 💧 Join us today!

More information?

- ◆ cc:eGov (EU-funded project) produced a series of “Think Papers” in order to raise awareness about citizen centricity.
- ◆ You can find these on <http://www.citizencentric.net>
- ◆ NET-EUCEN website: <http://www.net-eucen.org>

Thank you for listening!