Agility in the Public sector
Inspiration on agile collaboration between legislators and public organizations

Troels Vincents Hjortholm & Terkel Tolstrup, Agile2019, Washington DC, August 5th 2019
How to develop the perfect public sector solution
How we experience the public sector envision the execution of projects

1. Make the legislation
2. Do the analysis
3. Ask for all the money

- +16,000 pages of specification
- Fixed price and delivery date
- Give 2/3 money to vendor

- Test without incidents
- Put into production
- Enjoy the system for 10 years without changes!
How to develop the perfect public sector solution
The reality of executing a project in the public sector

Make the legislation

Do the analysis

Ask for all the money

16,000 pages of specification

Fixed price and delivery date

Give 2/3 money to vendor

Reality check!

Test, fail and extend project

Put into production while accepting errors/risks

Take system out of production
What challenges do you see when trying to work agile in public organizations?

Join the live pool at: www.slido.com
Activity code: #Deloitte
What challenges do you see when trying to work agile in public organizations?

- governance
- regulations
- political games
- priorities
- politics
- budget
- culture
- changing priorities
- requirements
- participation
- consensus
- show me the data
- security
- bang
Who are we?

Terkel Tolstrup
Nordic Agile Commercial Lead

- Equity Partner in Deloitte Denmark
- Strategic advisor for senior executives in the public sector for the largest agile transformations in Denmark
- Main author of book about implementing agile ways of working in the public sector in Denmark
- More than 15 years of extensive experience within transforming IT organizations, projects and programs
- Specialized in agile methodologies and technical advisory with experience in multiple largescale agile transformations
- Worked with agility since 2002

Troels Vincents Hjortholm
Nordic Agile Community Lead

- Senior manager in Deloitte Denmark
- Initiator of some of the largest agile delivery programs in the public sector
- Designed full scale SAFe public delivery programs
- More than 12 years of experience in designing and implementing agile ways of working in the public sector
- Deep practical experience within agile transformations from portfolio and program level to solution and team level
- Has introduced the SAFe framework to more than 300 people
- Leading Deloitte’s Nordic Agile Community
Three central circumstances for agility in the public sector
To ensure agility in the public sector, three circumstances must be taken into account and acted upon and in accordance with.

1. Legislation
   How to work agile while pinned under legislation?

2. Sourcing
   How to ensure an agile delivery on project outcome?

3. Financing
   How to finance public sector projects the agile way?
Agility in the public sector

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How many have, as part of an agile project, changed any legislative documents?

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How many have, as part of an agile project, changed any legislative documents?

- No, we did not change legislative documents: 49%
- No, but we should have: 30%
- Yes we changed legislative documents: 22%
Levels of legislation
Some levels of legislation are very difficult to change whereas other levels are easier

- **Constitution**: The basis for all legislation
- **Principal acts**: A legislation adopted by the politicians.
- **Amendment Acts**: Amendments to principal acts decided by the politicians. Acts that provide amendments to be made to one or more principal acts.
- **Consolidation Acts**: An administrative consolidation of an original principal act and the succeeding amendment acts.
- **Promulgation**: A promulgation is issued by the administrative authorities. The purpose of the promulgation is usually to elaborate the act (framework legislation). (also called statutory instrument and other names)
- **Technical exhibit to a promulgation**: A technical exhibit to a promulgation typically refers to data deliveries or integrations to public systems.
Digitalization of legislation
The Danish government has agreed on 7 principles of digitalization to make new legislation easier to digitize.

Three initiatives to make digitalization of legislation easier

1. **Obligatory assessments**
   - To highlight and assess implementation consequences.
   - From proposal to final passing of legislation.

2. **Install government agency**
   - To ensure implementation consequences are properly clarified.
   - To uphold the seven principles.
   - Review drafts, guides politicians and include external experts for input.

3. **Review of existing legislation**
   - To be reviewed on an ongoing basis to ensure digitalization of legislation.
   - The focus is *not* to add an extra layer of regulation.
   - To simplify legislation and the administration behind it.
Review of existing legislation
• To be reviewed on an ongoing basis to ensure digitalization of legislation.
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Install government agency
• To ensure implementation consequences are properly clarified.
• To uphold the seven principles.
• Review drafts, guides politicians and include external experts for input.

Obligatory assessment
• To highlight and assess implementation consequences.
• From proposal to final passing of legislation.

Is more analysis on legislation before implementation the right way to go?

Three initiatives to make digitalization of legislation easier
1. Simple & clear rules
2. Digital communication
3. Enable automatic case work

Homogeneous terms & reuse of data
Safe & secure handling of data
Use of public IT-infrastructure
Prevent fraud & mistakes
The evolvement of Agile Teams and DevOps

Barriers have been broken down between Business, Development and Operations

Working in Agile Teams started with a demand for better and more effective collaboration between Business and Development. Having broken down the wall by introducing agile ways of working, a new demand was created for the same level of alignment between Development and Operations.
One more barrier to break down - Introducing Agile Legislation

The need for similar collaboration is now appearing between Business and Legislation

Today, the internal developments of companies working agile has created a need for similar collaboration to occur with legislators outside the business – introducing Agile Legislation. By mastering Agile Legislation, the chance to work agile in otherwise fixed settings are appearing.
Agile mindset versus traditional (non-agile) agency mindset

Similarly to the shift in mindset in IT and business organizations, legislators in Government bodies will also have to adopt an agile mindset.

**TRADITIONAL MINDSET**
- Avoid change
- No failure tolerance
- Fix the requirements
- One time delivery
- Development through fixed scope
- Plan, build, test, deliver big bang
- Stick to the plan

**AGILE MINDSET**
- Welcome change
- Embrace failing fast
- Build & feedback loops
- Continuous delivery
- Value-driven development
- Small value-add slices
- Improve through discovery
Three case examples for Agile Legislation
For closer collaboration between legislative bodies and digitalization initiatives

**CASE 1:** Update legislation to digital realities

**CASE 2:** Legislators/jurists part of agile teams

**CASE 3:** Agile collaboration for compliance excellence

Levels of legislation that may be affected:
- **Constitution**
- **Principal acts**
- **Amendment Acts**
- **Consolidation Acts**
- **Promulgation**
- **Technical exhibit to a promulgation**

Political levels of legislation:
- Interpretation of legislation

- Levels of legislation that may be affected
CASE 1: Highly Regulated Public Institution
Update legislation to digital realities

Previously, the requirements from legislation would be transformed to business requirements and then developed. Once in the development phase, complex rules and exceptions in the legislation would result in delayed IT deliverables because no dialogue would be created with legislation on alternative ways to ensure the law could be upheld.

1. Legislation
A new legislation is active and has to be supported with business processes and IT systems

2. Business requirements
The legislation is translated into business processes and IT requirements

3. Development
At the development phase the supporting IT systems are developed based on the business requirements. Here complex rules and exceptions from the legislation becomes clear, typically resulting in further needs for development.

4. Further IT development for complex rules and exceptions
A first product has been development but to comply with all rules and exceptions of the legislation further development is needed. This results in delay.

5. GO LIVE
The solution is now ready to go live following a period of delay.
CASE 1: Highly Regulated Public Institution
Update legislation to digital realities

Instead of delaying IT development, the relevant legislative documents are adjusted to allow for a faster go-live.

1. Legislation
A new legislation is active and has to be supported with business processes and IT systems

2. Business Requirements
Legislation is translated into business processes and IT requirements

3. Development
Developing the product based on requirements

4. Adjust relevant legislative documents
The learnings from the development process results in updated legislative documents

5. GO LIVE
The product is now ready to go live.
CASE 1: Highly Regulated Public Institution
Update legislation to digital realities

CASE RESULTS
Highly Regulated Public Institution

Go live on time
CASE 2: Government agency
Legislators part of agile release trains

When legislation is considered part of the value stream and agile release trains, it is possible to:

- Write new legislation as part of the value stream
- Be aligned with and update legislation at all times
- Adjust interpretation of legislation at every release
- Reduce risk of complex legislation being the reason for delays in IT systems
- Easier interpret legislation into business requirements
- Incorporate ideas from IT into legislation, e.g. to enable usage of new technologies such as cloud
- Change the mindset around legislation being rigid
CASE 2: Government agency
Legislators part of agile release trains

CASE RESULTS
Government agency

Many simplifications based on ideas from agile teams
Ideas from agile teams passed in congress
CASE 3: Company Compliance Program
The traditional collaboration between a company and a compliance agency.

Traditional collaboration for compliance
CASE 3: Company Compliance Program
Agile collaboration between a company and an agency in achieving compliance.
CASE 3: Company Compliance Program
Close collaboration between a company and an agency in achieving compliance.

CASE RESULTS
Company Compliance Program

- Frequent reporting
- 30 releases in year
- Better solution for both Authority and private company
- Public authority adjusted compliance requirements
- Less resources needed from the company.
Recommendations
Suggested principles to support Agile Legislation

Definition:
Agile Legislation is the practice of reducing the time and effort of putting legislation into operation by building upon approaches from Agile and DevOps. Core parts of Agile Legislation are closer collaboration between regulating bodies and Agile delivery organizations along with adjusting legislation, regulations and interpretations thereof.

Introducing 5 principles for Agile Legislation:

1. **Collaboration between legislators and organizations** over receiving legislative documents and proving compliance
2. **Updating legislation and regulations** over extending IT projects
3. **Agile mindset within regulating bodies** over traditional mindset
4. **Prove continuous improvement of compliance** rather than complying to all regulations in one go
5. **Update existing legislation and regulations within agile delivery programs** over having the legislators outside of the agile delivery organizations
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Examples of IT-scandals in the Danish public sector
In the past, several public system developments and implementations have either been cancelled or overrun their budget due to lack of adaptation and agility in planning and execution

<table>
<thead>
<tr>
<th>Solution</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMANDA, The National Labour Market Authority (Cancelled in 2008)</td>
<td>150 million $</td>
</tr>
<tr>
<td>POLSAG, the police case review system (Cancelled in 2012)</td>
<td>Approx. 75 million $</td>
</tr>
<tr>
<td>DeMars, the Danish Defense central IT-system (put into operation in 2004)</td>
<td>Budget overrun by at least 60 million $</td>
</tr>
<tr>
<td>Digital recording, Court of justice (Delayed 1,5 years; implemented in 2009)</td>
<td>Budget overrun by at least 40 million $</td>
</tr>
<tr>
<td>PROASK, the board of workplace injury IT-system (Cancelled in 2014)</td>
<td>25 million $</td>
</tr>
<tr>
<td>DACCIS, the Danish Defense IT-system (Cancelled in 2008)</td>
<td>60 million $</td>
</tr>
</tbody>
</table>

Source: [http://www.dr.dk/nyheder/penge/her-er-8-store-offentlige-it-skandaler-til-milliarde](http://www.dr.dk/nyheder/penge/her-er-8-store-offentlige-it-skandaler-til-milliarde)
Techniques for IT procurement
Different ways of contracting for IT solutions exist

- **In-house development**
  Software is developed through internal developers. External resources are hired on demand.

- **Agile teams on contract**
  Full stack agile teams are hired. The customer remains in charge as Product Owner.

- **Fixed budget, flexible scope**
  Contract includes fixed budget along with both fixed and flexible demands.

- **Fixed contract**
  Fixed contract with agile teams, several releases and change management.

- **Platform and configuration**
  Traditional procurement of platform configuration implemented through agile methods.
Traditional procurement
The procurement phase follows traditional approach

IT solution providers are contracted for the entire development and realization process to build a **specific product elements**. The procurement phase is therefore long, complex and hard to change mid-way.

- The entire solution is represented in **one contract** covering start to finish with the same contractor
- **Large, fixed priced** contracts
- Business demands formulated as **specific solution elements**
- IT solution provider’s **incitement** lies in **economic** gain
- **Responsibility** lies given **100 % with IT solution provider**
- **Hard to adjust** business demands and/or change contractor mid-way

**Fixed priced agreement**
One IT solution provider to build the entire project from specific project requirements
How to ensure successful public solutions with agile methods?
Business demands are broken into mini tenders and outcome based

IT solution providers are booked for a small portion of the solution through mini tenders to build a specific **business outcome**. The procurement phase is therefore shorter and more adaptable to change in IT solution provider and demands.

- **Business demands formulated as** *business outcome*
- **IT solution provider’s incitement** lies in *outcome* delivery fostering new hire
- **Responsibility** of the outcome remains with the **IT solution provider** while **hiring new contract teams** is with the customer
- Easy to **adjust business demands** and/or change IT solution provider mid-way
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Standard solution development in the public sector

The model for state institutions represents a demand for staged development including reporting between stage changes.

The foundation of the model speaks to a traditional approach, where each phase is completed before moving forward. In many cases, resulting in the implementation phase also following a traditional approach to be completed before moving forward.

**Challenges**

- Payment milestones at each project phase.
- Lack of possibility to try out solutions and learn throughout the project.
- Users and industries cannot relate to the project until late in the process.

**Ideas**

- Payment milestones at **implementations**.
- The use of **prototypes** and **early testing** to ensure **learnings**.
- Implement ongoing **demos** instead of reviews.

A number of challenges with the model arise when wanting to follow agile methods. However, they are not hindering the development through agile methods. Ideas can be implemented to the model to support agile ways of working.

- **Requesting yearly** funding to be **released quarterly**
- **Reporting loops** included to validate development and learning
Where do we go from here?
Impediments are not in the path – they **are** the path...

- Mindset shift with legislators
- Maturing good examples from pockets in the public sector
- Public leaders to support and have the courage to go agile
- Rethinking development process and tendering process
- Redesigning standardized public sector IT-project models to agile delivery models
QUESTIONS?
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