

This document discusses multiple key themes, mainly around public sector data management, interagency collaboration, event-driven services, and challenges in implementing interoperable systems addressed during the Norway visit. Here's an outline of the main themes, supported by relevant quotes from the interviews:

OSLO - Day One

1. Interagency Collaboration and Decentralized Coordination

The transcripts highlight the lack of a centralized plan in data sharing and service integration across government agencies. Instead, collaboration arises organically, often driven by mutual needs rather than mandated directives.

- Quote: "So it wasn't a centralized plan, it was like, as we...you said before with the plan as we go...you saw that you have these needs and you find ways to actually get the results you wanted...through mutual cooperation between private and public sector"
- Quote: "It's not that the government said that, okay, you should cooperate...these agencies said, okay, we recognize..."

2. Event-Driven Service Triggers

The concept of life events triggering services is explored. Events such as losing a job or a change in personal circumstances prompt a series of automated, interconnected services across agencies. The discussion covers the potential of formalizing event definitions to standardize how services are activated.

- Quote: "This is the life event that triggers a set of services. So, the life event has to be described in a formal way. We don't have a formal way for this..."
- Quote: "A live event triggers the need for a service...this service described with CPSV, change uses and change data"

3. Registries and a "Single Point of Truth"

There is a strong emphasis on creating reliable registries as a single source of truth. Registries should ideally hold validated data and prevent redundancies across systems. The document identifies challenges due to differing registry structures and legal mandates, especially when they involve multiple registries for similar data points.

- Quote: "The idea is to have a single point of truth of a registry. I think that this is the fundamental thing"
- Quote: "For example, in Greece, we might have different registries with similar or the same information. And the problem is, which one do you use as the...single point of proof"

4. Data Sharing, Security, and Citizen Identity

Discussions around secure citizen identification show a reliance on centralized identity structures, like Norway's unique ID system and Bank ID for accessing services. The complexity of issuing IDs, especially for younger citizens or for specific sectors like education, highlights the need for secure, interoperable identification across systems.

- Quote: "It's a multi-factor authentication...private sector is using it as well"
- Quote: "We are trying to bridge the academic world with the bank ID EID world...to try to issue a public EID for children"

5. Data Paradigm Shift from Document-Based to Data-Centric Systems

A significant shift is discussed: moving from document-centric to data-centric models, reducing dependency on paper and formal documents. This approach promotes digital transformation by focusing on data integrity rather than paper-based records.

- Quote: "The registries is the option that we have to become completely paperless...moving from a document paradigm to a data-centric paradigm 100%" (p. 13).
- Quote: "Even the European Commission...spend money to create document management systems...we still have to, you know, adhere to the standard..." (p. 15).

6. Challenges with Municipalities and Local Authorities

Local municipalities, being autonomous, often have different procedures and systems. This autonomy complicates efforts to standardize services across municipalities. Central organizations attempt to coordinate, but there is limited mandate to enforce interoperability standards.

- Quote: "Coordinating the work with the life events on the government level is not easy but achievable...but coming to the municipalities, we have to coordinate by some goodwill"
- Quote: "There is an association...that we're trying to get...to coordinate"

7. Data Sovereignty and Privacy Concerns

The transcripts repeatedly mention the importance of data sovereignty, particularly regarding citizen privacy and control over personal information. This theme discusses how agencies and systems need to provide secure access to data, maintaining a balance between availability and privacy.

- Quote: "This registry that you have, the people's registry is...also used as a simple point of truth for getting the information for one person...we try to make sure the data stays protected, especially across borders"
- Quote: "We need the digital representation...to validate this without asking for additional certificates. It's a cultural challenge, and data sovereignty is at its core"

8. Evolution of Standards and Terminology Alignment

The conversations illustrate a pressing need for standardized terminology across agencies and countries. As teams from various regions come together, differing terms and interpretations create confusion, emphasizing the need for a unified vocabulary around core concepts like "base data," "life events," and "high-value datasets."

- Quote: "We need to agree on common terminology...For example, high-value dataset is defined by European legislation, and...we often spend hours debating what we mean by foundational data or base registries" .
- Quote: "In Denmark, they called it basic data; each country seems to use different terms, which complicates alignment".

9. Interoperability and API Challenges

The document addresses technological limitations, such as the absence of consistent APIs across agencies, which complicates data sharing. The lack of a central mandate to ensure systems interoperate leads to inefficiencies, as individual municipalities may develop or purchase systems independently.

- Quote: "We are ending up with 360 different solutions...Alten provides tools for interoperability, but many municipalities still hesitate to adopt shared systems" .
- Quote: "When procuring new systems, it's rarely specified that they should be interoperable...it's very, very slow".

10. User-Centric Service Design

There is a push towards designing services around user needs, especially in contexts where life events (like marriage, employment changes, or relocation) require data to flow seamlessly between services. This theme emphasizes the need for flexible services that adapt to user journeys instead of forcing users through rigid workflows.

- Quote: "The user-centric approach means that you cannot put these services in a line...each person's journey is unique, so the services need to adapt accordingly".
- Quote: "We use events that describe changes in a person's life...triggering relevant services...we choreograph these based on what the citizen actually needs" .

11. Public-Private Sector Trust and Bank ID System

The document describes Norway's unique reliance on Bank ID, a system initially developed by private banks but now used across public services. This model underscores a high level of trust between public and private sectors, yet also presents unique challenges regarding control and audit standards.

- Quote: "The Bank ID is used as a multi-factor authentication...90% of citizens rely on it, and the private sector uses it too, even though it was initially a banking solution".

- Quote: “While trusting banks with this responsibility has been practical...it does raise questions about how much control we have”.

12. Technical Debt and Legacy Systems

Participants expressed frustration with older systems and “technical debt,” where outdated technologies and practices hinder modernization. Much of the discussion suggests a need to overhaul or replace legacy systems to make way for more flexible, data-driven architectures.

- Quote: “We’re going back to the basics...even though Norway is known for digital services, we still have some outdated processes holding us back”.
- Quote: “Some of these systems were never designed for interoperability...we need to reimagine them as services built around current data standards”.

13. Challenges of Municipal Autonomy

While municipalities are independent and autonomous, this freedom poses challenges for nationwide service standardization. Local authorities often procure systems independently, leading to fragmentation and difficulties in creating unified national services.

- Quote: “We have 357 municipalities, each autonomous...coordinating them is nearly impossible, even though they all serve similar functions”.
- Quote: “Municipalities often prefer to handle things their own way, and while there is an association, it doesn’t have the mandate to enforce solutions across all municipalities”.

14. The Shift to Linked Data and Decentralized Architectures

In an effort to modernize, there is considerable interest in linked data and decentralized architectures. The EU’s push for open standards and interoperable data systems is mentioned as a motivator for Norway’s own exploration into these technologies, indicating a shift toward more interconnected and flexible data management models.

- Quote: “The EU’s focus on linked data, open standards, and decentralized IDs is influencing us...we’re experimenting with these to see if they can address some of our current challenges”.
- Quote: “We’re looking to align with data spaces...implementing IoT and digital twin solutions across local authorities could drastically improve interagency workflows” .

15. Cultural Shifts and Change Management

Beyond technical and procedural changes, the discussions reveal a broader need for cultural transformation. Public sector employees and citizens alike must adapt to new digital paradigms and data-centric models, which require shifts in mindset and acceptance of novel technologies.

- Quote: “The shift from paper-based documents to data-centric services isn’t just technical—it’s a cultural challenge” (p. 14).
- Quote: “We’re asking citizens to think differently about their relationship with the government...it’s about building trust in these new systems and models” (p. 2).

16. European Influences and Cross-Border Collaboration

Norway’s digital strategy is influenced by EU regulations and initiatives, with efforts to align local standards with European frameworks. Collaborative projects and cross-border data initiatives are increasingly essential as Norway seeks interoperability within the broader European context.

- Quote: “We shouldn’t sit here in Norway and invent something new...collaborating with EU frameworks will bring us up to speed with standards that are developing across Europe” (p. 11).
- Quote: “We are aligning with the EU on concepts like data sovereignty, linked data, and IoT to ensure that our systems can interact across borders” (p. 52).

17. Decentralized Identity and Digital Authentication Across Age Groups

Identity management and digital authentication extend beyond adults, with discussions around creating secure ID solutions for minors, particularly for academic and social media use. This theme addresses the need for secure, age-appropriate authentication mechanisms to protect younger users in digital environments.

- **Quote:** “We’re trying to bridge the academic world with the Bank ID system...to issue a public EID for children...so they can access services and social media with verified age” (p. 19).
- **Quote:** “Bank ID is excellent for adults, but for younger age groups, schools are creating separate identities, which is not ideal” (p. 17).

18. Process-Driven vs. Event-Driven Service Models

There is a philosophical distinction drawn between process-driven and event-driven approaches. In process-driven models, services follow strict, predefined workflows, while event-driven models adapt based on life events or real-time changes in user data. This shift aligns services more closely with citizen needs and enables dynamic responses to personal events.

- **Quote:** “Events trigger services...for instance, if someone loses their job, that event should automatically activate a chain of support services” (p. 4).
- **Quote:** “We’re moving from a process-driven model to one that choreographs services based on actual life events, a more flexible approach” (p. 5).

19. Digital Inclusion and Accessibility Standards

Inclusivity is a significant theme, with efforts to design services that meet universal design and accessibility standards. There is mention of guidelines that mandate accessible digital services, ensuring that all citizens, including those with disabilities, can access public sector services effectively.

- **Quote:** “The standards for universal design are essential...an independent part of our work is ensuring all services adhere to these guidelines for accessibility” (p. 34).
- **Quote:** “We need to provide digital solutions that are universally accessible to uphold inclusivity across our systems” (p. 34).

20. Legacy of European Standards and Their Adaptation

The conversation delves into the historical development of European standards, particularly with frameworks like the Core Public Service Vocabulary (CPSV) and Data Catalog Vocabulary (DCAT). These frameworks serve as the backbone for data description and service definitions, although Norway finds itself modifying and extending them to meet unique needs.

- **Quote:** “We use CPSV and DCAT for defining services and data...however, we’ve extended these frameworks to incorporate life events and other localized requirements” (p. 3).
- **Quote:** “We work closely with European standards but find ourselves adapting them to suit Norwegian needs, like extending CPSV to cover events” (p. 8).

21. Challenges with Public Sector Innovation and Risk Aversion

Government agencies often exhibit a risk-averse culture, which can stifle innovation. The transcripts mention how municipalities and other bodies lean toward low-risk options, often delaying or complicating the adoption of shared solutions or new technologies.

- **Quote:** “Municipalities tend to avoid risk...they prefer public procurement over innovating on shared solutions, which delays unified development” (p. 44).
- **Quote:** “Innovation is challenging when agencies are inherently risk-averse and slow to adopt new solutions” (p. 47).

22. The Role of Shared Data Catalogs and Semantic Consistency

Shared data catalogs are a central theme, with discussions about how Norway is implementing catalogs to create a unified semantic layer. This approach helps avoid redundancies and misinterpretations by standardizing data descriptions across agencies, promoting better data interoperability.

- **Quote:** “We use a shared data catalog...adhering to CPSM3 with an extension of events, ensuring services are defined consistently” (p. 1).
- **Quote:** “Semantic consistency across services and data is key...without it, data integration becomes chaotic” (p. 3).

23. Legal Foundations and Legislative Hurdles for Data Access

Legal structures often complicate access to data across agencies. The document touches on the need to establish clear legal frameworks that allow agencies to access and share data without violating privacy or other legal constraints.

- **Quote:** “There is often a need to work on getting a legal foundation to access data...every top manager talks about data sharing, but without legal structure, it’s challenging” (p. 104).
- **Quote:** “Agencies need clear legal foundations to access data...many policies restrict data sharing, which slows down service integration” (p. 14).

24. Digital Twins and IoT Integration in Smart Cities

As part of the push for digitalization, Norway is exploring the use of digital twins and IoT in smart city initiatives. These technologies enable real-time data tracking and simulation, aiding city planners and public administrators in creating responsive urban environments.

- **Quote:** “We need digital twins and IoT solutions to better manage smart cities...these technologies provide a real-time view of infrastructure and enable proactive management” (p. 52).
- **Quote:** “Digital twin solutions are being implemented in pilot projects across the EU...they’re essential for the future of interconnected smart city services” (p. 52).

25. Impact of Funding and Resource Constraints

A recurring theme is the impact of funding constraints on the pace and quality of digital transformation projects. Municipalities, in particular, face budget limitations, which restrict their ability to implement or maintain high-tech solutions without external support or shared resources.

- **Quote:** “Smaller municipalities often don’t have the resources to implement sophisticated digital solutions...shared solutions could be a lifeline, but funding is a challenge” (p. 42).
- **Quote:** “Many projects are constrained by limited funds, which delays digital transformation and makes sustaining long-term projects difficult” (p. 16).

26. Citizen Engagement and Education on Digital Services

As digital services expand, there is a need to engage and educate citizens on how to use these platforms. Ensuring that citizens understand and trust new systems is key to the success of digital transformation efforts, as is fostering a digital-first mindset.

- **Quote:** “We’re asking citizens to think differently about their relationship with the government...engagement and education are critical for this shift” (p. 2).
- **Quote:** “We need to foster a digital-first mindset among citizens, making sure they feel comfortable and empowered using digital services” (p. 13).

Additional Themes from Oslo Day One

- **Foundational Data and Base Registries:** The discussions highlight the importance of foundational data, referred to using various terms such as "base data," "foundational data," and "master data" [1-3]. These are core datasets about citizens, businesses, and other entities that underpin numerous public services. The sources emphasize that well-maintained base registries, containing this foundational data, are crucial for efficient and effective public service delivery. [4-7]
- A key point of discussion is the need for a **national framework** to govern foundational data and base registries in Norway. This framework would address issues such as data quality, access, and interoperability. [8, 9]
- **Master Data Management:** The concept of "master data," a term commonly used in the private sector, is presented as a potentially useful framework for managing foundational data in the public sector. [2, 10]
- The conversation highlights the challenges faced in Norway due to a lack of consistent terminology and a comprehensive national strategy for managing this data. [8, 11]
- **Once-Only Principle:** The once-only principle, a core element of efficient digital government, is a recurring theme. [6, 12] The idea is to minimize administrative burden on citizens and businesses by ensuring that they only need to provide information to the government once.
- The sources explore the application of the once-only principle in various contexts:
- **Reporting Obligations:** Simplifying reporting procedures and reducing the burden on businesses by ensuring they only submit information once. [12-14]
- **Public Service Provision:** Enabling citizens to access public services without repeatedly providing the same information to different agencies. [12, 15]
- The sources acknowledge the challenges of implementing the once-only principle, particularly the need for robust base registries and clear data governance frameworks. [6, 16]
- **Life Events and Seamless Service Delivery:** The concept of structuring public services around "life events" is discussed as a means to improve user experience and service delivery. [17-20] The sources use the example of death and inheritance to illustrate how services can be coordinated and streamlined around a specific life event. [21-23]
- **Challenges of Coordination:** Coordinating services across different levels of government (national, regional, and municipal) is a recurring challenge, particularly when it comes to life event services. [24-28]
- **Interoperability and Data Exchange:** The need for interoperability between systems and seamless data exchange is emphasized as crucial for successful life event services. [28, 29]

- **Trust and Data Sharing:** Trust is identified as a crucial element for successful data sharing, both within the public sector and between the public and private sectors. [30-33]
- The sources acknowledge that trust between public and private sectors is particularly fragile in Greece. [30, 31]
- The discussion explores potential solutions, such as data spaces and trust frameworks, to facilitate secure and trustworthy data sharing. [31, 34]
- **Digitalization vs. Efficiency:** The speakers distinguish between simply digitizing existing paper-based processes and achieving genuine digital transformation that leverages data and technology to create more efficient and user-centric services. [7, 35]
- **Moving Beyond Electronic Paper:** The sources criticize efforts that merely replicate paper forms in a digital format, emphasizing the need for a data-centric approach to truly transform public service delivery. [35, 36]
- **National Service Catalogue:** The sources discuss the need for a comprehensive national service catalog in Norway. [37, 38] While a basic taxonomy of services exists, there's no centralized, up-to-date catalog covering all public services. [38, 39]
- **Role of Technology and AI:** The sources touch upon the potential of technologies like AI to streamline processes, improve data quality, and enable more proactive and personalized service delivery. [40-43] Examples discussed include:
 - Extracting reporting obligations from legislation using AI. [40, 41]
 - Using AI assistants to guide citizens through complex service processes. [42]

It's important to note that the transcript represents a dynamic conversation, so these themes interweave and overlap throughout the discussion.

Key Themes from the Norway Meetings - Day Two

The Brønnøysund meeting addressed several key themes regarding the digitization of public services and the establishment of central registries. The main themes revolve around collaboration between public and private sectors, data minimization, digital solutions, challenges in registry coordination, and the evolution of open-source platforms. Below are the main themes, supported by quotes from the transcript.

1. Collaboration Between Public and Private Sectors

The discussion emphasized the importance of collaboration between the public and private sectors for effective service delivery. This partnership model is crucial to ensuring that public services do not compete with private services but instead create synergy that drives efficiency.

- **Quote:** "Good active dialogue between public and private sectors to deliver efficient public services."

This quote reflects the consensus on the need for partnership rather than competition between these sectors.

2. Challenges in Registry Coordination

The complexity of establishing a central coordinating register, like the CCR, was a recurring theme. There was a detailed exploration of how the different registries had previously used inconsistent identifiers, causing duplication of information and inefficiencies.

- **Quote:** "The legislation was inconsistent with regards to the definition of entities. This caused difficulties in exchanging information between these registers in a secure way."
- **Quote:** "The CCR were established in 1995... Basic information was collected in one place, in one register."

This discussion highlighted the problems caused by the absence of a standardized identifier across different registries, which led to multiple reporting requirements for entities. The CCR's establishment addressed these issues by providing a unified registry with a unique identifier for all entities.

3. Data Minimization and Information Sharing

The concept of data minimization was also discussed, focusing on avoiding unnecessary data collection and ensuring that data sharing between different governmental entities was efficient and secure.

- **Quote:** "Data minimization efforts."
- **Quote:** "The CCR serves like a point of truth for the other registries. The other registries get the information from the CCR."

The principle here was to ensure that only necessary data is shared and accessed by those who need it, thereby protecting data privacy while improving administrative efficiency.

4. Digital Solutions for Registry and Public Interaction

There were extensive discussions around making digital solutions available for everyone, including the use of open-source platforms and initiatives to improve digital services like Altinn.

- **Quote:** "Altinn is a Norwegian internet portal that facilitates digital communication between businesses, private individuals, and public agencies... It serves as a platform where users can access various government services."
- **Quote:** "We are moving to new Altinn... The Altinn cooperation funding model is 50-50 financing between public sector bodies depending on transaction."

This shows the transition to a more proactive and open-source approach, emphasizing the benefits of shared development and financing.

5. Open-Source and Future-Proofing Digital Services

Open-source solutions were a significant part of the discussion. The move towards open-source and sustainable digital services was portrayed as necessary for building resilient and adaptable public services.

- **Quote:** "Dying technical solutions - towards open source (this is the open source hook)."
- **Quote:** "Altinn public studio... Digital public goods alliance - Altinn is there."

The aim is to create more adaptable, collaborative solutions that can benefit from a broader community of developers and innovators, reducing dependency on outdated technologies.

6. Practical Issues and Registry Integration

Practical integration challenges, such as data discrepancies and the need for consistent updates across registries, were addressed as well.

- **Quote:** "There is a mandatory registration for those who are going to register in the associated registry, and there is an obligation to share information."
- **Quote:** "We pick this information up from the register of employees, and we get this information once a month."

The CCR's role in aggregating data from various sources and maintaining data accuracy through periodic updates is critical to ensuring the integrity of public data.

7. Trust and Transparency in Public Administration

A critical theme in the discussion was the need to establish and maintain trust between citizens and public administration. This effort includes initiatives aimed at increasing transparency and allowing citizens to access decisions made by government agencies.

- **Quote:** "The Transparency Program Initiative... every public administration had to publish their decisions, otherwise, if they were not published in this repository, they were not legal."
- **Quote:** "In Greece, we had the need for that because it was a black box."

These quotes illustrate the importance of transparency initiatives, such as the repository where all administrative decisions are published, which aims to rebuild citizen trust by ensuring open access to government activities.

8. Standardization and Common Terminology

The lack of standardized terminology and definitions across registries was highlighted as a major obstacle to data consistency. Establishing common definitions for terms such as "registry," "base registry," and "legal entity" is crucial to ensuring that different entities understand and manage information consistently.

- **Quote:** "We found out that the common understanding of what is a registry... only 29 percent of what was recorded as registries were actual registries."
- **Quote:** "We have to define what we call registry in the public sector... Just to have a common understanding."

This theme emphasizes the importance of shared terminology to ensure effective communication and coordination between different public sector entities.

9. Citizen-Centric Digital Services

There was significant emphasis on designing digital services that prioritize the needs of citizens. This approach involves providing easy access to information, minimizing bureaucratic hurdles, and offering centralized services that simplify interactions with government bodies.

- **Quote:** “We have set up the workshop that will take place on the 10th of December in Athens at the National Center for Public Administration. We will also create a website for the outputs to stay there after the end of the workshop.”
- **Quote:** “For us, it was a catalyst to proceed with digitalization because we had the technology there for years, but... during COVID, it was a catalyst for them to happen quicker.”

This highlights the role of citizen-centric initiatives and the acceleration of digital adoption during the COVID-19 pandemic, which pushed the public sector to prioritize and improve digital services for the benefit of citizens.

10. Registry of Registries and Base Registries

The concept of a “registry of registries” and the establishment of base registries were discussed as critical components for improving data interoperability and reliability. The base registries are meant to serve as authoritative sources of information, while the registry of registries helps ensure that data consumers know where to find specific data.

- **Quote:** “We need a registry of registries that you should have mandatory if you need this information... and by looking, I say, you know, you can have an open API.”
- **Quote:** “This is what we were proposing because where it says people's registry... this is how we came up with the seven boxes, which should be the base registries.”

The discussion highlighted the need to identify and establish reliable sources of truth for core data, such as population, real estate, vehicles, and legal entities, to ensure consistency and accuracy in public administration processes.

11. Data Interoperability and Open API Requirements

Ensuring interoperability between different data registries was highlighted as both a challenge and a priority. The idea of using open APIs was explored as a potential solution to facilitate real-time data sharing and minimize manual efforts.

- **Quote:** “There are ad hoc interoperabilities designed between those registries, but they are really ad hoc. There's no open API...”

- **Quote:** “We had decided to include OpenAPI as a mandatory practice, and it was not accepted... Ministers are really possessive of their data.”

The struggle to achieve seamless interoperability between registries stems from organizational silos and resistance to sharing data, reflecting broader challenges in fostering open data ecosystems.

12. Practical Solutions for Local Challenges

Practical issues such as local capabilities, funding models, and managing existing technical debt were also discussed. These practicalities influence the overall pace and success of digital transformation projects.

- **Quote:** “Altinn cooperation funding model (this model was in place) 50-50 financing. Public sector bodies pay depending on transactions.”
- **Quote:** “We are moving towards open source, but we have dying technical solutions that need replacing.”

These quotes underscore the need for realistic, practical approaches, including sustainable funding models and strategies for overcoming technical limitations, to ensure the continued evolution of digital public services.

13. Public Participation and Crowd-Sourced Initiatives

A noteworthy theme was the use of crowd-sourced approaches for developing registries and documenting public processes. Engaging public servants in recording procedures allowed for better coverage and a sense of ownership, which contributed to the project's success.

- **Quote:** “We called it the wikification process because we also used the crowdsource method... It was a collective effort.”
- **Quote:** “The ministries themselves had to record the procedures that belonged to them, so they felt this sort of ownership.”

Involving multiple stakeholders, particularly public servants who are directly responsible for processes, enhances accuracy and ensures that documentation efforts reflect real-world practices.

14. Importance of Legal and Regulatory Frameworks

The development of digital public services also requires a supportive legal and regulatory environment. The discussion highlighted challenges in aligning legislative requirements with digital practices.

- **Quote:** “We need digital ready legislation... the ministries need guidelines for establishing new registries.”
- **Quote:** “The legal framework must be there to support open data and digital service mandates.”

This theme emphasizes the critical role of laws and regulations in shaping and supporting digital transformation, especially in terms of data sharing and new registry setups.

15. Resilience and Adaptation in Crisis

Another emerging theme was the way the COVID-19 pandemic acted as a catalyst for accelerating digital adoption and innovation within public administration.

- **Quote:** “During COVID, because a lot of things had to happen very quickly, it was a catalyst for digital solutions to happen.”
- **Quote:** “COVID pushed public agencies to think outside traditional methods and adapt faster to new technological solutions.”

The pandemic drove rapid changes in public service delivery, revealing both vulnerabilities and the potential for innovation under pressure.

16. Need for Capacity Building and Skill Development

Ensuring that public servants are equipped with the right skills and knowledge to handle digital transformation was also discussed. Training and capacity building were highlighted as key to overcoming resistance and ensuring effective implementation.

- **Quote:** “Local capability of municipalities—this is essential to ensure digital services are actually used and not just developed.”
- **Quote:** “We need expertise to help other teams acquire new skills or technology knowledge.”

Capacity building is essential to empower staff and stakeholders to fully engage with and effectively utilize new digital tools and systems.

17. Proactive and Preemptive Digital Services

There was also an emphasis on moving towards proactive services that anticipate citizen needs rather than relying on citizens to initiate every interaction.

- **Quote:** “Altinn towards preemptive proactive services—anticipating what the citizen needs instead of waiting for them to apply.”

- **Quote:** "We aim to provide proactive services based on life events, minimizing bureaucratic burden on citizens."

Proactive services mark a shift towards a more user-centric and responsive government, where services are delivered in a timely manner based on predictable needs, reducing administrative burdens for citizens.

Main Themes from the Norway Meetings - Day Three

This Brønnøysund meeting touched upon various significant themes related to digital transformation, cross-border collaboration, data sharing, and user-centric service design. The underlying goals are to simplify public administration, improve transparency, foster collaboration, and ultimately create a more efficient and trustworthy public service landscape.

1. **Digital Governance and Simplification** The meeting extensively discussed the simplification of bureaucratic processes through digital solutions. One of the major initiatives is the use of "METOS," which is a registry aimed at cataloging and organizing government procedures to simplify administrative processes.

Transcript Support: "This thread is called mythos in Greek...to help public servants get out of the labyrinth of bureaucracy that we face in Greece, and I suppose it's more or less similar in many countries"【5†source】.

This quote underscores the purpose of METOS: to help both citizens and public servants navigate and simplify the complexities of bureaucracy.

2. **Data Sharing and Digital Ecosystems** There is a significant emphasis on the importance of data sharing among government entities and the public. The meeting introduced the concept of a "Digitalization Circular," which is a directive aimed at enhancing data interoperability across different administrative levels.

Transcript Support: "In September, the government launched a new digitalization circular... aimed to increase data sharing and harness all the opportunities in data and data-driven innovation"【5†source】.

The reference to data sharing and a digitalization circular points to the government's push toward an integrated digital ecosystem to promote smarter task-solving and improved public services.

3. **Integration and Interoperability** The speakers discussed the integration of services and data among government organizations and third-party service providers. This effort aims to foster cross-border data usage, enable collaboration, and improve service delivery to citizens and businesses alike.

Transcript Support: "We shall simplify and innovate through collaborating and data sharing. We shall create trust in society by providing transparency and accurate data"【5†source】.

The above quotes emphasize the goals of simplifying government interactions and making data accessible for public benefit.

4. **Public-Private Partnerships and API Use** The importance of public-private collaboration in building digital solutions was highlighted, with specific examples of how private companies can use government data to create new services. APIs (Application Programming Interfaces) were mentioned as a crucial tool to facilitate data sharing.

Transcript Support: "We also have the METOS API, which is our way to offer information to third parties. It is open, and you can use the API to get it"【5†source】.

This demonstrates the government's efforts to open up data for broader innovation, allowing private developers to use the METOS API for creating applications that can benefit citizens.

5. **User-Centric Approach and Feedback Loops** Another key theme discussed was designing services with the end user in mind. The meeting described how government services should evolve based on feedback from citizens, making processes more transparent and user-friendly.

Transcript Support: "The benefits are many for citizens and businesses because they have a portal, a single portal to seek information about services...They can also call on, let's say, this process or ask for more information about the step of their application"【5†source】.

The single portal and feedback options highlight a user-centric model that ensures citizens are not only aware of services but also able to interact effectively with them.

Additional Themes from the Norway Meetings - Day Three

1. **Cross-Border Collaboration and the Nordic Smart Government Initiative** The meeting highlighted the significance of international collaboration, particularly focusing on the Nordic Smart Government and Business (NSG&B) initiative. This initiative aims to create value for small and medium-sized enterprises (SMEs) by making real-time business data accessible across the Nordic region, fostering integration and economic growth.

Transcript Support: "Launched by the Nordic Ministers of Business in May 2018 and supported by Nordic Innovation, NSG&B aims to create value for small and medium-sized enterprises (SMEs) by making real-time business data accessible and usable for innovation and growth across the Nordic region"【5†source】.

This cross-border initiative aligns with the broader goal of making the Nordic region the most integrated and sustainable globally by 2030.

2. **Decentralization and Metadata Handling** The discussion also touched on the concept of decentralization in how data is handled and presented. Instead of storing all data centrally, platforms like Dialog Porten compile information dynamically, based on user identification, during an active session.

Transcript Support: “Dialog Porten is a common metadata storage based in one’s ID to create a thread (story/dialog) for each entity (person/legal entity)... it compiles them on the fly, not through the central register”【5†source】.

This theme emphasizes the drive toward more dynamic and individualized data presentation, improving user experience while maintaining data integrity.

3. **Integration of Traditional and Digital Solutions** A recurring theme was the coexistence of traditional and digital solutions in public service delivery. Many government services are transitioning from paper-based to digital formats, yet there remains a focus on integrating these approaches to meet the needs of all citizens, regardless of their digital literacy.

Transcript Support: “Electrified Paper (old pdf forms)” and “Altinn is also α ΣΗΔΕ (electronic management system)”【5†source】.

The integration of “electrified paper” into existing electronic systems shows a balanced approach to modernization, ensuring no citizen is left behind in the digital transition.

4. **AI, Machine Learning, and Process Mining for Governance** The speakers mentioned future projects involving artificial intelligence (AI) and machine learning, particularly in the context of automating government procedures and optimizing processes. There is also a focus on exploring process mining techniques to improve transparency for both end-users and government entities.

Transcript Support: “We are in a continuous process of improving this definition... by making LLMs (Large Language Models) available to automate processes and create new solutions for citizens”【5†source】.

AI and machine learning are seen as transformative tools that will further enhance the effectiveness and efficiency of public administration, leading to more responsive and streamlined services.

5. **Governance Models and Controlled Crowdsourcing** Another point of discussion was the introduction of a unique governance model for METOS, referred to as “controlled crowdsourcing.” This approach involves expanding the pool of editors allowed to update registry information, but maintaining strict oversight and control to ensure quality and accuracy.

Transcript Support: “We have what we call controlled crowdsourcing approach, so it’s crowdsourcing but not with anyone that is interested to contribute, but with specific users with specific roles”【5†source】.

This model leverages a larger group of contributors while ensuring that only qualified individuals make edits, balancing openness with reliability.

6. **Trust and Transparency as Core Values** Trust and transparency were underscored as crucial values in all these digital transformations. The tax entity, for example, is highlighted as the most trusted government body in Norway, serving as a benchmark for other services.

Transcript Support: “The tax entity has the largest trust in Norway”【5†source】.

By ensuring transparency in data processes and providing reliable services, the government aims to build on this trust, which is foundational to citizen engagement and satisfaction.

7. **Regulatory Framework and Legislative Evolution** The meeting also touched on the role of evolving regulatory frameworks that govern digital transformation. The introduction of new laws for data sharing, as well as ongoing public consultations, were seen as critical steps in ensuring that digital governance aligns with societal needs and legal standards.

Transcript Support: “There is a proposal for a new law... aimed at making it easier for society to find and use public data to create new products, services, and solutions”【5†source】.

This highlights the ongoing efforts to create a conducive legislative environment that encourages data sharing, innovation, and compliance with international standards such as the Open Data Directive.

8. **Role of Cultural Shift in Digital Transformation** Another emerging theme was the need for a cultural shift within government organizations to adapt to digital transformation. Changing the mindset of public sector employees to prioritize data sharing and transparency over siloed operations was presented as a critical success factor.

Transcript Support: "We have been struggling for the organization to understand how important it is to share our data... it's only when our data is used that it creates value"【5†source】.

The cultural shift theme underscores the importance of internal advocacy and training to make sure that digital initiatives are fully embraced by public employees.

9. **Balancing Innovation with Privacy and Security** The meeting recognized the challenges of balancing data-driven innovation with privacy and data security. As the government moves to open data and cross-border data sharing, concerns about data protection and ensuring compliance with privacy regulations were discussed.

Transcript Support: "Not all of our data are open... some data is authorized only for specific sectors"【5†source】.

This illustrates the tension between openness and the need for controlled data access to protect sensitive information, which is crucial in maintaining trust and safeguarding citizens' privacy.

10. **Stakeholder Engagement and Inclusivity** A theme that emerged prominently was the focus on ensuring inclusivity by engaging multiple stakeholders, including private companies, other public sector entities, and international bodies. The meeting frequently mentioned collaboration as a way to ensure that digital services are well-rounded and cater to a wide range of needs.

Transcript Support: "We try to make services that are available both for government agency, public agency, and the private sector"【5†source】.

This theme speaks to the broader goal of creating a participative digital ecosystem where multiple stakeholders contribute to the development and implementation of digital solutions.

- 11. Training and Capacity Building for Digital Competence** Capacity building was another key point of discussion. The meeting stressed the need to develop digital competencies among public servants through training programs, seminars, and digital platforms, to support the transition to more automated and streamlined government services.

Transcript Support: "We are organizing some seminars for the editors in order to accelerate this process"【5†source】.

Training and capacity building are crucial for ensuring that all stakeholders, especially public servants, have the skills and confidence to work effectively with new digital tools and platforms.

- 12. Real-Time and Consent-Based Data Sharing** The meeting also discussed advancements in real-time and consent-based data sharing between businesses and government entities, which is part of the broader Nordic Smart Government and Business initiative. This approach is designed to foster innovation while respecting data ownership and individual privacy.

Transcript Support: "NSG&B seeks to simplify operations for SMEs, reduce administrative burdens, and foster new business opportunities... in an automatic, consent-based, and secure manner"【5†source】.

Consent-based data sharing places control in the hands of the data owners, thereby reinforcing transparency and ethical data practices.

- 13. Experimentation and Prototype Development** Experimentation was discussed as a key aspect of the ongoing digital transformation. By launching pilot projects, the government aims to test innovative ideas, such as AI-driven tools, before implementing them on a broader scale.

Transcript Support: "We have some pilot projects that demonstrate how modern technologies like AI, blockchain, and others can be beneficial for central and local administration"【5†source】.

Experimentation through pilot projects serves as a way to de-risk innovation, allowing governments to test new solutions on a smaller scale before a full rollout.

Themes from Norway Meetings - Day Four

1. Modernization of Registry Systems

The modernization of Norway's national registry systems focused on unifying the systems from multiple platforms to a single modular system. This shift aimed at improving data standardization, automation, and accessibility across different government registers.

Supporting Quote:

- "The registers were run on 14 different systems... they were siblings, sort of... but of course this technology that was built on was getting old."

2. Automation and Case Handling

The emphasis was on automating case handling processes to reduce manual workloads and improve efficiency. The goal was for AI systems to handle routine tasks, with human intervention only when necessary.

Supporting Quote:

- "The main goal is to automate... in the best case, there is no need for any human to intervene."

3. AI Adoption in Public Sector

AI was presented as a transformative tool to improve productivity, efficiency, and decision-making across public sector services. The government aims for 80% AI adoption in government agencies by 2025, rising to 100% by 2030.

Supporting Quotes:

- "AI-based systems must be transparent; AI systems must facilitate inclusion, diversity, and equal treatment."

4. Ethical AI and Human Oversight

Human involvement in AI decision-making was seen as crucial for ethical use, particularly to prevent issues like AI "hallucinations." Human oversight ensures accountability and helps maintain public trust in AI systems.

Supporting Quote:

- "It will be necessary to have evaluations and a human in the loop... sometimes AI systems can go their own way and make up results, which is unacceptable in the public sector."

5. Event-Driven Architectures and Data Handling

The adoption of event-driven architectures was highlighted, allowing for responsive, real-time data handling. Components of the system can now react to data changes dynamically, improving the overall adaptability.

Supporting Quote:

- "It is very event-based... both the messaging mechanisms are event-based, and there are processes that listen to external events that necessitate changes in the data."

6. Interoperability and Cross-Border Services

Improving interoperability among agencies was a significant focus, aiming to reduce citizen involvement in carrying documents between departments. Cross-border digital services were also discussed, with emphasis on enabling seamless data transfer across European countries.

Supporting Quotes:

- "The problem we want to solve is that agency A cannot get the document from agency B right away... So we use the citizen as a middleman, as a carrier."
- "The aim is for a standardized system that works across Europe to enable cross-border services."

7. Blockchain Technology

Blockchain was considered for its potential to improve transparency and security, specifically for shareholder registers. The exploration of blockchain as part of Norway's registry systems was seen as a promising innovation.

Supporting Quote:

- "We have looked into ways to use blockchain, particularly for the shareholder register."

8. Collaboration, Innovation Labs, and Skill Development

The importance of collaboration between public and private sectors was emphasized, alongside the use of innovation labs. These labs enable experimentation and foster innovation in public services. There was also a focus on developing digital competencies across public institutions to support AI and digital transformation.

Supporting Quotes:

- "Effective collaboration between public and private sectors and favourable framework conditions are needed."

- "We are allowed to research something and do proof of concept, even though it is not meant to go into production... because we learn a lot from proof of concepts."

9. Digital and Green Maturity Assessment

Digital and green maturity assessments were introduced to help organizations align with sustainability goals, measuring their readiness in both areas.

Supporting Quote:

- "We are introducing digital and green maturity assessment, which is a self-assessment tool that includes sustainability as an important component."

10. AI Governance and Ethical Compliance

A recurring theme was the development of governance systems and frameworks for ethical AI use, ensuring adherence to EU regulations. This governance included risk evaluations and continuous assessments to safeguard responsible AI usage.

Supporting Quote:

- "We are testing out an AI governance system... It contains policies of the relevant EU legislation when it comes to AI systems."

11. Risk of AI Misuse

Concerns were raised about the potential misuse of AI by criminals to manipulate public systems, and the need for sophisticated AI systems to counter such threats effectively.

Supporting Quote:

- "The criminal people will also use AI to manipulate the systems... We have to have the same skills in the AI system to fight back with accuracy."

12. Machine-to-Machine Communication

The move towards machine-to-machine interfaces was also highlighted to improve data sharing among public agencies, reducing human intervention in data transmission.

Supporting Quote:

- "In a new system, data becomes available immediately... It will be available through machine-to-machine communication, through APIs, or through lookups."

13. Sustainability Reporting

Sustainability reporting was discussed in terms of integrating mandatory and voluntary reporting into a unified, simplified system for greater transparency.

Supporting Quote:

- "We are looking at both mandatory reporting and voluntary reporting... It's important to simplify and achieve transparency."

14. AI for Data Quality and Trust

Ensuring data quality was a major concern when applying AI technologies. Poor quality data could lead to unreliable AI outputs, highlighting the importance of having accurate and well-maintained data to gain meaningful results.

Supporting Quote:

- "The outputs are as good as the inputs... If you feed them with good data, you will get great results."

15. AI for Public Sector Efficiency

AI is seen as a tool to enhance efficiency in the public sector, reduce human resource dependence, and deliver equal treatment for similar cases. These efficiency gains are vital, especially considering the shrinking workforce in the public sector.

Supporting Quote:

- "It can lead to more efficiency and cost savings in the public sector... and lead to more equal treatment if all similar cases are treated in the same way."

16. Experimentation and Proof of Concepts

The public sector was encouraged to experiment with AI, create proof-of-concept projects, and learn from them. This cultural approach aims to encourage a learning environment while also managing financial risks.

Supporting Quote:

- "We are allowed to research something and do proof of concept, even though it is not meant to go into production... because we learn a lot from proof of concepts and it helps in the development phase."

17. AI Training and Competency Building

Building digital competency within public institutions, especially concerning AI, was highlighted. The government aims to empower public sector workers with the knowledge to develop and implement AI systems effectively.

Supporting Quote:

- "The AI team consists of representatives from different departments, working to explore and responsibly utilize opportunities offered by AI."