**List of possible questions**

### **Conceptual Structure**

*1. General Understanding of Registries*

What is the primary function of the Brønnøysund Register Centre, and how do its registries support that mission?

How would you define a "registry" in the context of public governance, and what key conceptual elements distinguish it from other forms of data collection?

Do you officially use the concept of base registry or any other term that creates a kind of “premier league” of public registries where special provisions/quality criteria apply? Which registries do you identify as base registries?

Could you give us the list of the registries maintained by the Centre and their purpose?

Do you apply common data management rules to all registries to ensure the accuracy and reliability of the data contained within these registries, or does each registry have its own management approach?

In your view, what is the purpose of maintaining registries, particularly in relation to state and societal functions?

Is there a Registry of Registries or any other type of yellow page infrastructure where information about the data kept in the various registries can be found?

*2. Data Management and Integration*

What are the primary challenges you face in integrating data from different sources across various registries?

How does the Centre address the issue of data redundancy across multiple registries?

How many public/private services use data from (base) registries?

Is there a common (national) data governance for all registries?

How do you integrate the concept of Once Only Principal in your registries’ governance?

Do you have an interoperability framework for public registries?

*3. Legal and Privacy Considerations*

What legal frameworks govern the operations of the Brønnøysund Register Centre?

How does the Centre balance public access to register data with the need to protect individuals' privacy?

In cases where sensitive personal data is involved, how does the Centre ensure compliance with data protection laws like GDPR?

*4. Data Accessibility and Transparency*

What mechanisms are in place to make the registries accessible to the public while ensuring data security?

Could you explain how the Centre maintains transparency in data handling and ensures that data provided to the public is trustworthy?

Are there plans to increase data accessibility or to make more registries publicly available in the future?

*5. Innovation and Future Outlook*

How is the Centre leveraging technology to improve data management and the operation of registries?

Are there any ongoing projects or initiatives aimed at modernizing the way registries are managed, or data is shared?

What role do you see for artificial intelligence and machine learning in enhancing the functionality of registries?

*6. International Collaboration and Best Practices*

How does the Brønnøysund Register Centre collaborate with international partners to ensure that its registries adhere to global standards?

What are some of the best practices or lessons learned from other countries' registries systems that have influenced the Centre's operations?

Are there any international benchmarking systems that the Centre uses to measure its performance?

*7. Registry Maintenance and Updates*

How often are the registries updated, and what triggers an update to ensure they remain current?

What challenges do you face when updating or maintaining older registries, particularly in terms of legacy data?

How does the Centre prioritize which registries need modernization or overhaul, and what factors drive those decisions?

*8. Ethical Issues Surrounding Registries*

What ethical concerns arise from the growing reliance on registries, particularly in terms of data misuse or manipulation?

How does the Centre address ethical dilemmas when deciding who can access certain types of registry data?

What measures are in place to prevent the misuse of registry data by external parties, such as businesses or government agencies?

*9. Data Sovereignty and Ownership*

Conceptually, who "owns" the data in a public registry? Is it the individual, the state, or some other entity?

How does the notion of sovereignty interact with the global flow of data, particularly when registries contain information that crosses national boundaries?

How do we address the conceptual conflict between the individual’s right to control their own data and the state’s need for complete and accurate registries?

### **Architecture & Info flows**

* What were the key architectural principles and design choices that underpinned the development of the centralized Register of Business Enterprises, and how did these choices address the limitations of any previous system?
* Does the establishment of the Central Coordinating Register for Legal Entities exemplify a "hub-and-spoke" model of information exchange, and what are the advantages and potential drawbacks of this approach that you have experienced?
* How has the adoption of Service-Oriented Architecture (SOA) principles, as evidenced by the Altinn platform, influenced the design and delivery of electronic services related to business registration?
* What are the information flows within the Altinn platform, and how do these flows contribute to achieving the "once-only" principle, where businesses only need to provide information to the government once?
* What are the main roles of different actors, including the Brønnøysund Register Centre, associated registers, and external stakeholders, in maintaining the integrity, security, and accessibility of information within the Norwegian register ecosystem?
* What are the potential benefits and challenges associated with the "Good Circle in the Use of Information," particularly concerning the evolving role of private information providers who access, refine, and sell business register data?
* How did the decentralized architecture of the pre-reform commerce registers pose challenges to information sharing, consistency, and overall efficiency? To what extent has this been overcome? | *The sources describe a system where 97 district courts maintained separate registers, leading to inconsistencies in processing times, data quality, and geographical limitations on company name protection. This structure likely hindered information exchange between registers and created difficulties for businesses operating across different jurisdictions.*

### **Governance**

* What are the specific roles and responsibilities of different stakeholders (e.g., Ministry of Justice, Ministry of Trade and Industry, Brønnøysund Register Centre, business organizations) in governing the registers, both before and after the reform/new strategy?
* How are decisions made about changes to the registers, such as the introduction of new registers, changes to registration requirements, or the implementation of new technologies?
* What mechanisms are in place to ensure the quality and accuracy of the data held in the registers, and how are these mechanisms monitored and enforced?
* How are issues of data privacy and security addressed in the governance of the registers, especially given the increasing emphasis on electronic filing and data sharing?
* How are the costs of maintaining and developing the registers funded, and what mechanisms are in place to ensure the financial sustainability of the system?
* How does the governance of the registers balance the needs of different stakeholders, such as businesses, the public, and government agencies?
* What are the specific legal and regulatory frameworks that govern the registers, and how have these frameworks evolved over time?
* How is the performance of the registers monitored and evaluated, and what mechanisms are in place to ensure accountability and transparency in the management of the system?
* How does the Norwegian experience with the "Good Circle in the Use of Information" inform the governance of registers in terms of data quality, user engagement, and trust?

### **ALTINN**

* How has the role of Altinn evolved and expanded since its initial launch in 2003, and what factors have driven these changes?
* What are the main components and functionalities of the Altinn platform, and how do they interact to support electronic service delivery to businesses?
* How does Altinn exemplify the concept of "joined-up" or "seamless" government, and what are the benefits and challenges associated with this approach?
* What were the key factors that contributed to the successful implementation of Altinn, and what lessons can be learned from both its successes and challenges?
* What mechanisms are in place to ensure the security and privacy of user data within Altinn, and how are these measures monitored and evaluated?
* How does Altinn address the needs of different types of businesses, including small and medium-sized enterprises (SMEs) that may have varying levels of digital literacy and resources?
* How is the performance of Altinn monitored and evaluated, both in terms of user satisfaction and its contribution to broader government objectives such as reducing administrative burdens and improving efficiency?
* What are the future development plans for Altinn, and how do these plans reflect ongoing technological advancements and evolving user needs in the digital landscape?

### **Legal**

* What legal mechanisms are in place to ensure the accuracy of information submitted by businesses during registration, and what are the consequences for businesses that provide false or misleading information?
* What legal considerations and challenges arose from the decision to centralize the business registers in Brønnøysund, particularly concerning data access and user privacy?
* How does the legal framework balance the public's right to access business information with the legitimate privacy concerns of businesses and individuals listed in the registers?
* How did the introduction of electronic filing and digital signatures through Altinn impact the legal validity and enforceability of documents and transactions conducted through the platform?
* How does Norwegian law address the reuse of data across different registers, and what legal safeguards are in place to prevent the unauthorized access or misuse of this information?
* What specific legal provisions govern the imposition and collection of fees for business registration and related services, and how are these fees determined and enforced?
* How does the legal framework surrounding business registers in Norway align with international standards and best practices, particularly within the European Union and the European Economic Area?

### **Technologies**

#### **General Technology Use**

1. **Data Management & Storage:**
   * What technologies or platforms do you use for managing and storing data within the Brønnøysund Register Centre?
   * How do you ensure the security and integrity of the data stored in your registries?
2. **Cloud Services:**
   * Does the Brønnøysund Register Centre utilize cloud-based infrastructure, and if so, what providers or platforms are used (e.g., AWS, Azure, GCP)?
   * How do you manage the risks and compliance issues associated with cloud storage?
3. **Data Integration:**
   * How do you integrate data across multiple registries to ensure consistency and avoid redundancy?
   * Do you use any specific enterprise service buses (ESBs) or data integration platforms (e.g., Apache Kafka, MuleSoft)?

#### **Software & Systems**

1. **Backend Systems:**
   * What backend software or platforms are used to manage the registries (e.g., custom-built, ERP systems, or COTS)?
   * Are there any open-source solutions utilized in your backend infrastructure?
2. **Public APIs & Data Access:**
   * Does the Brønnøysund Register Centre provide public APIs for third-party access to registry data?
   * How is the security of these APIs ensured, and what standards (e.g., OAuth 2.0, OpenID) do you follow?
3. **Altinn Platform:**
   * What technologies power the Altinn platform, and how does it integrate with other public sector systems?
   * How is user authentication handled for citizens and businesses using the Altinn platform?
4. **Mobile & Web Interfaces:**
   * What front-end technologies are used for the web interfaces that the public interacts with (e.g., React, Angular)?
   * Do you offer mobile-friendly solutions or native apps for accessing registry services?

#### **Security & Compliance**

1. **Cybersecurity:**
   * What cybersecurity measures are in place to protect against data breaches or cyberattacks?
   * Do you use any specific tools or platforms for threat detection and incident response (e.g., SIEM, firewalls)?
2. **Compliance with GDPR & Data Privacy:**
   * How do you ensure compliance with GDPR regulations in your data management and processing activities?
   * What mechanisms are in place to handle data subject requests, such as the right to access or erasure?

#### **Emerging Technologies & Innovation**

1. **Blockchain:**
   * Have you explored the use of blockchain technology for managing registry data, such as for ensuring data immutability or transparency?
2. **AI and Machine Learning:**
   * Are AI or machine learning technologies being used to enhance your operations, for example in automating processes or improving decision-making?
   * How do you ensure transparency and accountability when using AI for critical operations?
3. **Internet of Things (IoT):**
   * Does the Brønnøysund Register Centre have any plans to integrate IoT data into its registries, especially for asset tracking or similar use cases?
4. **Digital Identity Solutions:**
   * How do you manage digital identities for users accessing your platforms?
   * Do you use technologies like biometric authentication, or rely on Norway's BankID system?
5. **5G and Edge Computing:**
   * Have you explored using 5G or edge computing to improve data accessibility or system performance for users in rural or underserved areas?