

Exam assignment TIK4021 – Spring 2021

The assignment has two parts.

- In part 1, please answer all 6 questions. Each answer should have a length of 300-400 words. Use the course literature and, if needed, examples.
- In part 2, please select one task. This part should be around 4000 words. Use the course literature and feel free to use examples or a specific case.
- Total word length for the entire exam: 6000 words (+/- 20%), everything included (front page, list of references, etc.).
- Language: ESST students must write their paper in English, while TIK students may choose between English and Norwegian.

Part 1 – Short answers / Answer all six questions:

This part of the assignment weighs approximately 30% of the grading.

1. How has innovation policy developed over time since the Second World War ended?
2. What does it mean to have a mission-oriented innovation policy?
3. Name 2-3 different ways through which university research can be commercialized
4. Explain the concept of a socio-technical regime in studies of sustainability transitions
5. Explain what is meant by the notion of path dependence and lock-in
6. Discuss 3 ways in which the nature of digital technologies affects how firms manage and organise digital innovation processes

Part 2 – Long answer / Choose one task:

Select one of these topics for a longer writing exercise. This part of the assignment weights approximately 70% of the grading. Use relevant course literature, and the tasks are also easier to answer if you select some concrete examples to illustrate your points.

1. Define a topic/goal that you believe would be well-suited for mission-oriented innovation policy. Discuss why this would be an appropriate mission and how you would expect innovation to come out of it.
2. Present arguments for and against the claim that universities should be more active in commercializing their research.



3. Select an established Norwegian industry that has undergone digital transformation and analyse the drivers behind it. Discuss some of the challenges that digitalisation poses for actors in established industries.
4. Innovation and collaboration in the public sector is an increasingly pursued goal. Select a case of innovation in the public sector and explain how this may contribute to address current societal challenges and / or to preserve the Norwegian welfare state.
5. A reduction of CO₂ emissions sufficient to meet the targets set in the Paris Agreement (2015) requires a transformation of the energy system. Describe some of the changes required and the main reasons for why it is difficult to change the energy system.
6. Use the innovation literature to discuss the role of the Norwegian oil & gas industry in a sustainability transition perspective. You should discuss the potential for positive and negative impacts, and you should discuss the role of firms as well as policy.