



# Job marketplaces and recruitment in the generative AI era

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**Schibsted Nordic Marketplaces / Jobs**

Photo of a serene Norwegian fjord reflecting the surrounding snowy mountains. On one side of the fjord, there's a modern corporate building made of glass and steel, representing the blend of nature and business in Norway.

# What I have generated content about

1. Schibsted briefly and our AI principles
2. Why AI will reshape recruitment & where it starts
3. Past and future of recruitment process (with examples)
4. Some ending remarks and suggestions

**Empowering** people in their daily lives.  
As a **fearless** force for change.  
In a society built on **trust** and transparency.

# Schibsted and its brands

- almost 1 billion monthly visits

## Nordic Marketplaces



## News Media



## Growth & Investments



# Key Schibsted facts

+ 60  
brands

~ 6,000  
employees

~ 1 billion  
monthly visits

NOK 2.4 billion  
EBITDA 2022

# Schibsted's framework for **responsible** AI



Fairness  
Accountability  
Sustainability  
Transparency

# Say goodbye to language barriers



The original: Schibsted's CEO Kristin Skogen Lund talking to employees about the quarterly results



French



Polish



German

Schibsted

# ... our CEO even with **Mandarin** and **Hindi**



Chinese



Hindi

## 2. Why AI will reshape recruitment & where it starts

Illustration of an advanced recruitment process: Centered in the image, a job candidate, representing a mix of cultures, is enveloped in AI wonders. Transparent screens project their professional journey, 3D graphics illustrate their skills matrix, and digital connectors link to their references. The background showcases a harmonious blend of nature and advanced urban infrastructure, emphasizing an optimistic future where AI elevates human capabilities.



# Why Skynet is knocking on recruiter's doors



Jobs are unique. People are unique. Matching requires (artificial) intelligence.



Job posting, job search, application & candidate selection are loosely coupled.

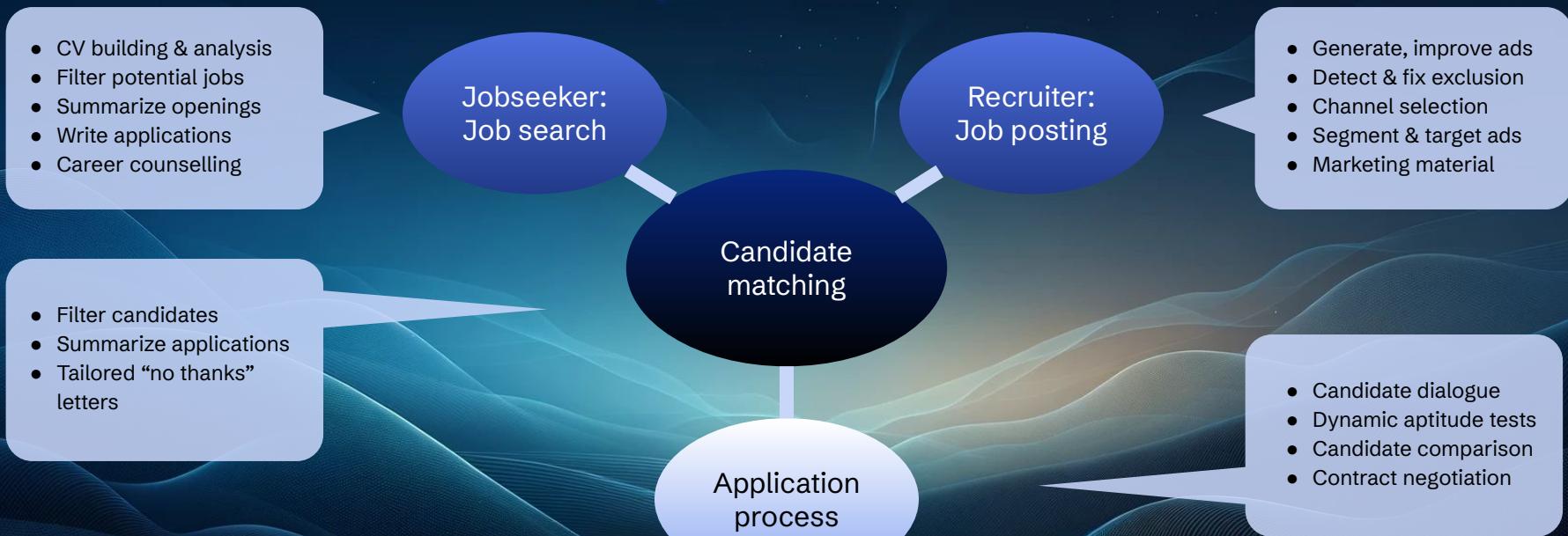


LLMs are revolutionizing textual interaction – essentially the core of job search.



Job market today is more 1800s than we care to admit. It's not exactly TikTok.

# Opportunities across the board: 17 sample areas



Wide image in 16:9 aspect ratio: A tranquil background with a gradient transition from dark blue at the bottom to semi-dark blue at the top. Subtle wisps of even darker blue float upwards, reminiscent of gentle night clouds, creating a peaceful setting for slide content.

### 3. Past and future of recruitment process

Illustration of a transitional meeting environment: On the left, a vintage Norwegian-style room with wooden walls, where two men and two women, representing different ethnicities, converse over paper job listings. As the room transitions to the right, it morphs into a sleek, technologically advanced setting. Here, four robots with gleaming surfaces discuss recruitment strategies using holographic displays, highlighting the evolutionary journey from manual to AI-driven recruitment.



## Job search in the 1800s

1. A manager (or his secretary) writes a job advertisement.
2. A man reads the advertisement in the newspaper.
3. The man writes an application letter and mails it to the company.
4. The hiring manager (...) reads the applications and picks the top men
5. After interviews, the best man for the job is chosen and hired.

...some time (thankfully) passes...



## Job search in 2025

1. Hiring need is defined (with AI assistance) together with colleagues
2. A jobseeker has specified their interests and skills (...)
1. Job marketplace's job is to facilitate a match between the two (...)
2. Opportunities are summarized to jobseeker, one click apply process
3. Candidate selection and screening is facilitated, inclusively.

[Legg til favoritt](#)

Utlept

## Launch Your Career: Join a leading, global organizational consulting firm

**Arbeidsgiver:** Korn Ferry**Stillingsittel:** Executive Assistant**Frist:** Snarest**Ansettelsesform:** Fast[Bli kjent med Korn Ferry](#)

This is a unique opportunity to gain hands-on experience from one of the leading organizational consulting firms in the world. We work with the top companies across the globe and are continuously growing while consistently setting ambitious goals, also for our own people. Therefore, we are now looking for two Executive Assistants to join our Executive Search team.

You will be working with the Executive Search team, consisting of seasoned professionals and colleagues that will support you and your professional development in a global human capital advisory firm. You will be contributing to all phases of client projects such as administrative tasks, documentation, research, client contact, and strategic planning.

To succeed in this role, we believe you are a curious and flexible team player with a growth mindset. We deliver high-quality services which require an eye for detail and a sincere focus on quality simultaneously as having the ability to manage complexity.

**Responsibilities:**

- Serve as a central point of contact for administrative inquiries including producing documentation required during a project, such as pitches, long lists, short lists, candidate reports, and reference reports, amongst others.
- Coordinate travel schedules and meetings.
- Maintain and update various project management and CRM systems used in the organization.
- Research.
- Assisting Associates and Partners on various projects.



### Spørsmål om stillingen

**Kontaktperson:** Korn Ferry[Send melding](#)[Søk her](#)[Hjemmeside](#)[Følg firma](#)

95 følger dette firmaet

**Vika Atrium, Munkedamsveien 45, 0250 Oslo**

# Demo time



Could you act as an expert recruiter and say if the ad I have linked is inclusive. Can you also give advice if some wordings are biased, and how one could improve them?

<https://www.finn.no/job/fulltime/ad.html?finnkode=315167602>



Finished browsing

The ad appears to be neutral and inclusive in its wording, focusing on the qualifications and responsibilities of the job rather than any particular type of individual. It also promotes a growth mindset and teamwork which are positive and inclusive traits. However, to further improve inclusivity, consider avoiding terms like "seasoned professionals" which might deter early-career individuals. Instead, emphasize the supportive and learning-oriented environment. Additionally, you might want to add an Equal Opportunity Employer statement and encourage individuals from diverse backgrounds to apply, to explicitly show your commitment to inclusivity.

After downloading a PDF of my LinkedIn resume and pasting it to ChatGPT, it was ready to act as a recruiter...

# Would Joonas be suitable for this role?

## Positive Points:

- Relevant Experience:** Joonas has extensive experience in business management, development, strategy, and digital services, which could be beneficial in the strategic planning aspect of the Executive Assistant role.
- Multilingual Skills:** While he doesn't speak Norwegian as required by the ad, Joonas has proficiency in multiple languages including English which is a key requirement.
- Education:** He holds a Master of Science degree in Strategy, Industrial Engineering, and Management which aligns with the educational qualifications sought in the job ad.
- Industry Knowledge:** His role at Schibsted, a notable marketplace organization in the Nordics, and his involvement in recruitment and analytics could offer valuable insights in assisting executive search projects.

## Negative Points:

- Mismatch in Career Level:** The Executive Assistant role seems to be a step back in terms of career progression for Joonas, who has held Director level positions and has substantial management experience. This might affect his motivation and satisfaction in an assistant role.
- Lack of Administrative Experience:** The job ad highlights a variety of administrative tasks which do not seem to be a significant part of Joonas' past roles based on the provided profile.
- Language Proficiency:** The lack of Norwegian language skills could be a disadvantage as per the job advertisement's requirements.
- Technical Skills:** The ad emphasizes Microsoft Office skills and a focus on quality and detail, which aren't explicitly mentioned in Joonas' profile.

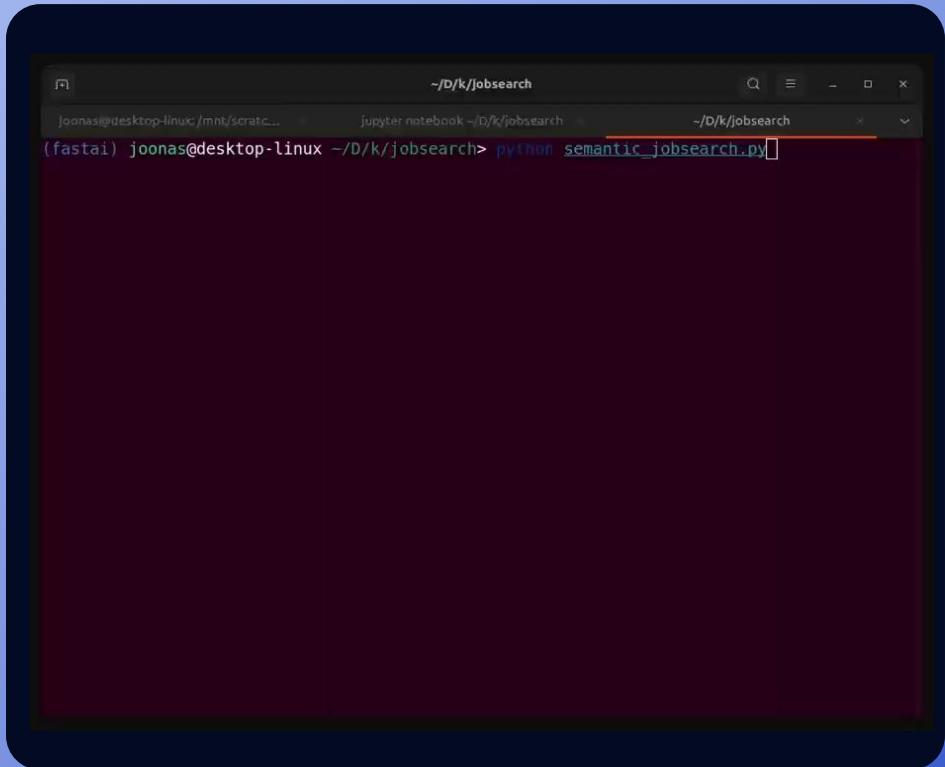
# With AI tools developing at fast pace (and accelerating development), it's easily within our grasp

- **\$1.38 to summarize 1000 job ads with OpenAI ChatGPT model**
- **\$0.64 for machine translating 1000 job ad titles to English**
- **ChatGPT, CoPilot and model libraries like Huggingface make prototyping a breeze**

Time taken:  
< 2 hours including documenting

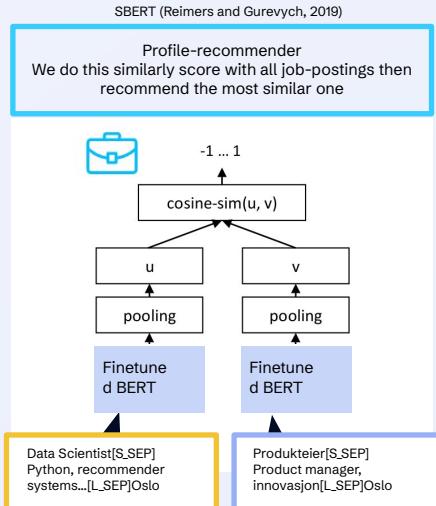
```
1 from sentence_transformers import SentenceTransformer
2 import pandas as pd
3 import numpy as np
4 from sklearn.metrics.pairwise import cosine_similarity
5
6 # Load a pre-trained Sentence Transformer model
7 print('Loading model...')
8 model = SentenceTransformer('multi-qampnet-base-dot-v1')
9
10 # Open the CSV file and read the job titles
11 df = pd.read_csv('jobtitles_en.csv')
12 sentences = df['ENGLISH_JOBTITLE'].values.tolist()
13
14 # Encode the sentences using the Sentence Transformer
15 print('Encoding sentences...')
16 sentence_embeddings = model.encode(sentences)
17
18 while True:
19     search_query = input('\nEnter a search query or q to quit: ')
20     if search_query == 'q': break
21
22     search_query_embedding = model.encode(search_query)
23     scores = cosine_similarity(sentence_embeddings, search_query_embedding[np.newaxis])
24
25     print('Top 10 results:')
26     for idx, score in sorted(enumerate(scores.flatten()),
27                             key=lambda x: x[1], reverse=True)[:10]:
28         # Get JOBID from dataframe
29         jobid = df.iloc[idx]['JOBID']
30         print(f'#{jobid}: {sentences[idx]} ({score*100:.0f}%)')
```

**Searching with keywords will  
be a thing of the past  
in a few years**

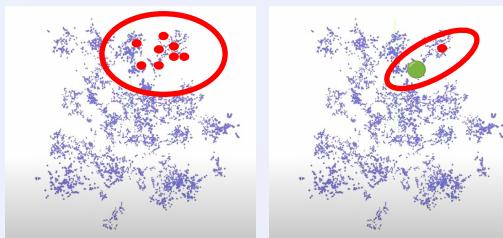


# Deep end: Advanced language models can be used to match jobs to user profiles (FINN.no use case)

## 1. Training custom SBERT models in Norwegian with FINN data

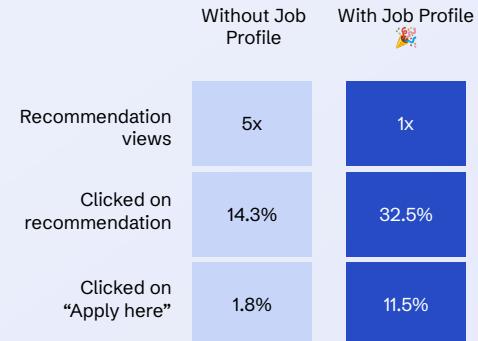


## 2. Creating embedding spaces of all job ads with SBERT model



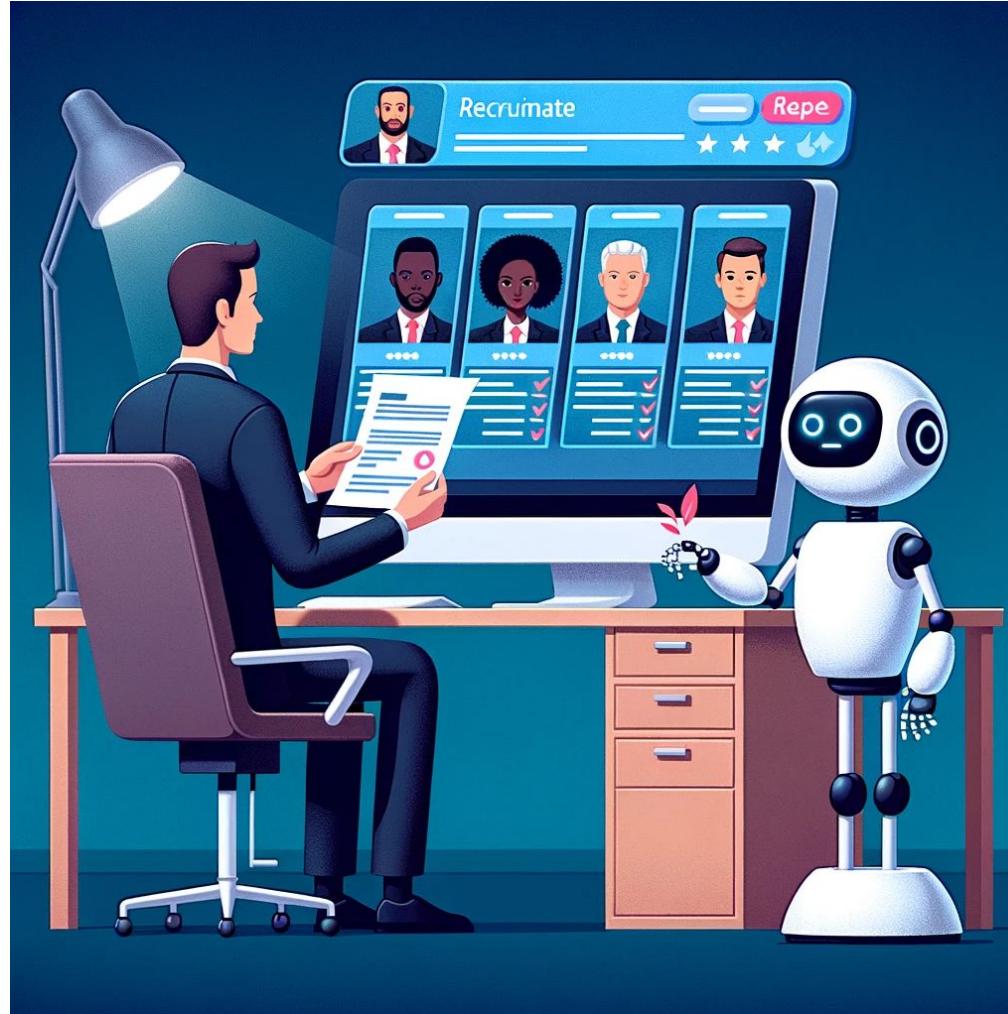
- Each blue dot represents a job-posting on Finn
- Each red dot represents a job viewed by a user
- Jobs we recommend
- Job profile

## 3. Using the job profile data + model results in 2-3x conversion



# 4. A few parting thoughts

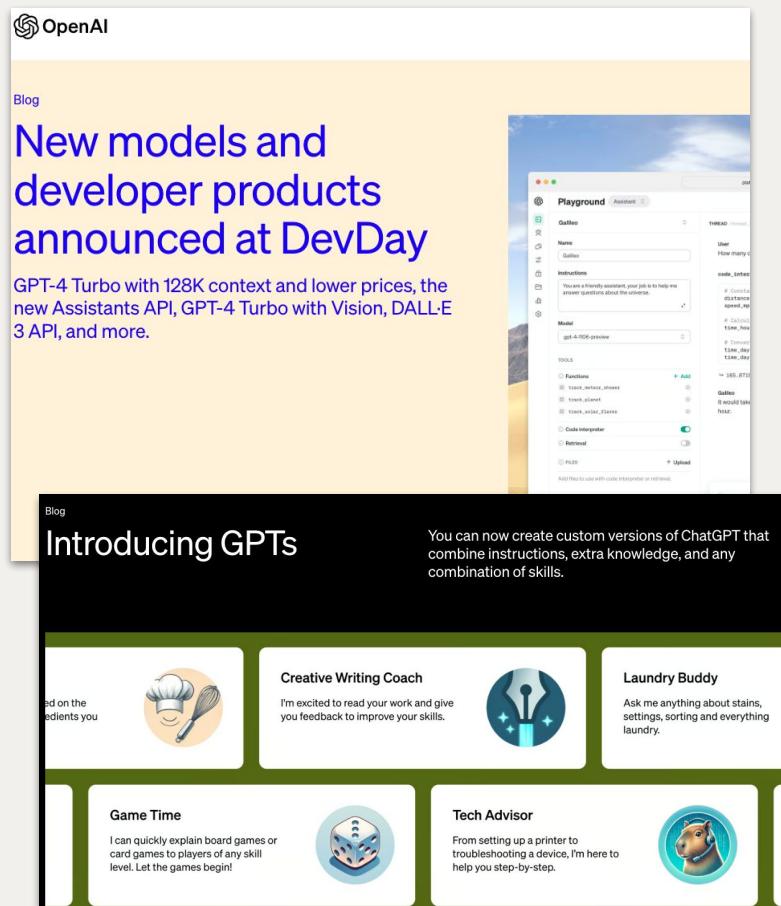
Illustration set in a modern office: A recruiter, representing diverse ethnicity, sits at a sleek desk with a large monitor. On the screen, AI algorithms automatically sort and highlight top candidate profiles. Beside the recruiter, a small robot assistant hands over a printed resume, symbolizing the tangible assistance AI provides in the present-day recruitment process.



**The capability of large language (and image) models  
will double and their unit price  
will be cut in half every 18 months**  
- Pihlajamaa's law

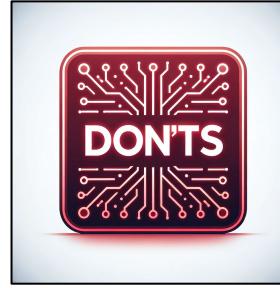
# OpenAI developer summit - 6th November

- **GPT 4 Turbo announced**
  - Trained up to April 2023
  - 3x cheaper input, 2x cheaper output
  - 128k context (300 pages), 4-64x
  - Function calling and JSON generation improved
    - easier integration & API use
- **GPT 4 Vision** - explain and reason with images
- **GPT 3.5 Turbo enhanced as well**
  - Context expanded to 16k
  - JSON and API improvements included
- **Assistants API for easy-to-create assistants**
  - Includes capabilities for data retrieval and function calling - roll out your own internal or external bots and services
  - Planned leaderboards, monetization, ...
- **DALL-E 3, leading image generator now in API**
- **Text-to-speech in addition to Speech-to-text**
- **Copyright shield, model tuning, ...**





Vector design of a 'DOs' sign on a white background: A square with rounded corners, illuminated in a vibrant green color. The word 'DOs' is prominently displayed in the center in sleek white font, with faint AI circuit patterns glowing in a softer green, signifying things to embrace in a modern, tech-driven context.



Vector design of a 'DON'Ts' sign on a white background: A square with rounded corners, illuminated in a deep crimson color. The word 'DON'Ts' is prominently showcased in the center in sleek white font, with faint AI circuit patterns glowing in a softer red, highlighting things to avoid in a modern, tech-driven manner.

- 1. If you aren't already experimenting with ChatGPT yourself, you can start with “Write me a resume for my next job”.**
- 2. Have A Plan™ how your platform will use AI in the next 3 months.**
- 3. Have A Pitch to your customers how your using AI to help them, and if needed, a timeline for it.**
- 4. Implementation starts with resources & empowering the product developers. Not just great ideas - we all have them.**
- 1. LLMs will not solve recommendations, scoring or search - they're only part of the solution**
- 2. Don't wire a text generator to your production systems and expect it to work 100 % - that's a likely path to some viral publicity you might not want - plan for hallucinations**
- 3. It's a pretty powerful hammer, but keep your mind on the end user and customer needs**

# Thank you!

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# Schibsted

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## Nordic Marketplaces