



REPORT | Cash 6 September 2024 | No. 5

Motifs and themes on new banknotes from 2028

Denmark needs new banknotes to ensure that cash remains a secure and efficient means of payment in the future. The new series of banknotes will be issued from 2028, replacing the current series from 2009 with bridges and ancient artefacts. In this report, you can read about the motifs and themes that will adorn the new banknotes, along with why and how they were chosen.

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Important achievements and the sea as motifs

The motifs on one side of the new banknotes will be important achievements and the people behind them. The achievements and people are fairy tales and Hans Christian Andersen, astronomy and Tycho Brahe, the Earth's core and Inge Lehmann, the Thule Expedition and Arnarulunnguaq. The motifs on the other side of the banknotes have the sea as a recurring theme.



A process with broad involvement

The final decision on motifs and theme was made by an expert group with the participation of external experts and Danmarks Nationalbank. Their decision was based on suggestions for motifs from museums, research and educational institutions within the arts, culture and natural sciences, and the results of a questionnaire survey with the participation of Danish and Greenlandic citizens.



New banknotes in circulation from 2028

In collaboration with external suppliers, Danmarks Nationalbank will now begin the work of finalising the final concept and graphic design of the banknotes. The design of the new banknote series is expected to be finalised in Q1 2026, when Danmarks Nationalbank will announce their final appearance. The new banknotes will go into circulation from 2028.

DANMARKS NATIONALBANK

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Keywords

Cash

Payments

Money

Bank notes and coins

01

Choice of motifs and themes

The use of cash has decreased in Denmark in recent years, but it will still be needed in the future. Cash is used as a means of payment in shops and between private individuals, and has a number of special characteristics at the individual and societal level in Denmark.¹

Danmarks Nationalbank began work on a new banknote series in autumn 2023 to ensure that cash remains a safe and efficient means of payment in the future. A lot has happened in the development of banknotes since the current 2009 banknote series featuring Danish bridges and ancient artefacts was designed. New technology has made it possible to improve the security of banknotes, which, together with a clearer watermark, will strengthen defences against counterfeiting, see box 1.

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New banknotes from 2028

The new series will consist of four banknotes: 50, 100, 200 and 500-krone. The series will be issued from 2028 and will replace the current banknote series from 2009 with Danish bridges and ancient artefacts. On the new banknotes, the watermark, which is the most important security feature, will have a more prominent role than on the current banknote series.

In the coming months, Danmarks Nationalbank will work on illustrating achievements, people and the reverse theme, as well as determining the overall graphic expression and aesthetics of the banknotes so that the overall concept appears coherent. Working closely with in-house banknote production experts, the concept will be further developed and refined before the final concept is handed over to an external printing company. In collaboration with the external printing company the concept will be finalised and prepared for mass production. The design of the new banknote series is expected to be finalised in Q1 2026, when Danmarks Nationalbank will announce the final appearance of the series that will go into circulation from 2028.

The new banknotes will – like the current ones – be legal tender in both Denmark and Greenland. The Faroe Islands have their own banknote series with their own motifs. The Faroe Islands are therefore not part of the work on the new banknotes.

The road to new banknotes



Source: Danmarks Nationalbank

¹ See Jakob Mølgaard Heisel, The role of cash in a society with low usage of cash, *Danmarks Nationalbank Analysis*, no. 21, November 2023 (*Jink*).

In addition to being a means of payment, banknotes are also a tangible symbol of a country's identity and therefore have cultural and historical significance.² A successful banknote is not only a secure means of payment – it is also a piece of applied art whose motifs embrace and represent those who use it. That's why Danmarks Nationalbank aims to create a secure and aesthetically pleasing new banknote series that is professionally produced, recognisable to the public and incorporates the latest banknote security technology.

The final decision on motifs and theme was made by an expert group with the participation of external experts and Danmarks Nationalbank. The decision is based on suggestions for motifs from museums, research and educational institutions within the arts, culture and natural sciences, and the results of a survey with the participation of Danish and Greenlandic citizens. The concept for the front of the new banknotes is "Important achievements and the people behind them", while the motifs on the back of the banknotes are themed around the sea.

Internationally recognised achievements with their roots in Denmark and Greenland

The four achievements and people chosen are Hans Christian Andersen and fairy tales, Tycho Brahe and astronomy, Inge Lehmann and the Earth's core, and Arnarulunnguaq and the Thule Expedition. They are all behind important achievements that are internationally recognised and have very special significance for Denmark and Greenland.

They range from outer space to the Earth's innermost core. They take us on a journey through the wondrous world of adventure and the relentless forces of nature. The achievements span many different fields, but share a common foundation of courage, curiosity and dedication. Each has expanded our understanding of the world, and collectively they bind us together.

Each banknote value will feature an achievement and a portrait of the person behind it. The achievements will appear in a clear copperplate on the banknotes, while the portraits of the people will be depicted in the banknote watermark. The watermark will play a more prominent role on the new banknote series than it does on the current series. It has not yet been decided how the illustrations of the achievements and portraits will look, nor has it been decided which people and achievements will appear on which denominations.

The sea brings banknotes into the present with links to our shared past

The motifs on the back of the banknotes will all have a sea theme. The sea is a central part of our shared identity. It binds us together and represents our view of the world. Historically, the sea has shaped our society and culture through seafaring, trade and fishing. We also use the sea nowadays as a sanctuary that invites activity, reflection and relaxation. The sea can therefore help to bring the banknotes into the present, with many of the chosen achievements dating back many years. The sea continues to shape our future with a focus on sustainable energy and biodiversity.

A process with broad involvement

Danmarks Nationalbank has invited a wide range of stakeholders to give their input on motifs and themes for the new banknotes, see box 2. The final decision was based on input from museums and research and educational institutions within art, culture and science, external experts and Danish and Greenlandic citizens.

² See Danmarks Nationalbank, Dansk pengehistorie 2005-2020 (Danish monetary history 2005-2020, in Danish only), volume 7, January 2023 (*link*) and see Jakob Mølgaard Heisel, The role of cash in a society with low usage of cash, *Danmarks Nationalbank Analysis*, no. 21, November 2023 (*link*).

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Broad involvement of museums, research and educational institutions, experts and citizens

Danmarks Nationalbank has involved the following groups in the work with motifs and themes for the new banknotes:

- Museums and research and educational institutions
- Experts in banknotes, art, culture and science
- Citizens from Denmark and Greenland.

Work on motifs and themes for the new banknotes started in autumn 2023. Subsequently, a wide range of research and educational institutions and museums in the fields of art, culture and science were invited to contribute with their suggestions for themes and motifs.

Danmarks Nationalbank received more than 150 suggestions for different themes and motifs. During the spring, the proposals received were sorted, categorised and further examined by Danmarks Nationalbank. This work resulted in a cross-cutting concept with a number of motifs and themes that would be suitable to adorn the banknotes.

The motifs and themes formed the overall list of ideas for an expert group to narrow down in April 2024.

In May 2024, the general public was given the opportunity to express their opinion on the selected motifs and themes before the expert group met again at the end of June 2024 to make the final decision on which motifs and themes will be featured on the front and back of the new banknotes from 2028.

Timeline: Working with motifs and themes on the new banknotes

- 30 November 2023: Danmarks Nationalbank announces that Denmark will have new banknotes from 2028.
- 29 January 2024: Museums and research and educational institutions are invited to provide input.
- 8 March 2024: Deadline for museums and research and educational institutions to provide input for new banknotes.
- 24 April 2024: Expert group holds first meeting to select motifs and themes.
- 13 May 2024: General public invited to answer a questionnaire about the motifs and themes of the new banknotes.
- 2 June 2024: Deadline for completion of the questionnaire.
- 17 June 2024: Expert group holds second meeting to present results from public involvement.
- 24 June 2024: Expert group holds a third meeting for the final decision.
- 6 September 2024: The report on the choice of theme and motifs is published.

Source: Danmarks Nationalbank.

Motifs and themes

The chosen motifs and themes range from outer space to the Earth's inner core. They take us on a journey through the wondrous world of fairy tale and the relentless forces of nature. The achievements span many different fields, but share a common foundation of courage, curiosity and dedication. Each has expanded our understanding of the world, and collectively they bind us together.

FRONT - Important achievements and the people behind them



The Earth's core and Inge Lehmann

Until 1936, experts believed that the Earth consisted of a liquid inner core. Inge Lehmann changed that perception. With her readings of seismological measurements, she put forward her groundbreaking theory that the Earth has a solid inner core. Inge Lehmann's discovery was a major scientific achievement that revolutionised the understanding of the Earth's internal structure and contributed to the development of modern geophysics. Throughout her lifelong work in science, Inge Lehmann made many discoveries that contributed to our understanding of the Earth's deep interior. She achieved great recognition and respect for her scientific discoveries abroad, but in Denmark she remained largely unknown. By depicting Inge Lehmann and the Earth's inner core on the new banknotes, the focus is on a great scientific achievement and on Inge Lehmann as a role model in her field.



The Thule Expedition and Arnarulunnguaq

The Fifth Thule Expedition (1921-1924) was the largest and most significant of the seven expeditions. The 18,000 kilometre expedition went from Greenland to Canada and on to Alaska to end up in Russia. Expedition participant Arnarulunnguaq contributed extensive and crucial knowledge about survival in the extreme climates the journey travelled through. Her courage and dedication are considered crucial to the success of the expedition. The expedition's discoveries formed the basis of one of the world's most extensive Arctic collections, now housed at the National Museum in Copenhagen. Arnarulunnguaq and the Thule Expedition provide a unique opportunity to tie the banknote series together across the kingdom.



Fairy tales and Hans Christian Andersen

Hans Christian Andersen's fairy tales are famous, loved, read and re-read around the world. They resonate with readers young and old – and have done so for almost 200 years. The universal issues they address transcend borders, time and place. They also have a unique and specific meaning for many Danes that can make the banknotes relatable. They live on through generations and remain relevant today because they open our eyes to important questions about being human.



Astronomy and Tycho Brahe

Today's advanced space technology dates back to the 16th century, when Tycho Brahe revolutionised astronomy by developing accurate measuring instruments and collecting extensive data about the celestial bodies. His work is the foundation of the knowledge we now have about astronomy. His landmark discoveries in the world of astronomy open up a wealth of powerful images that can contribute to a beautiful and detailed banknote, symbolising that the contribution of the individual can also have a significant impact on posterity.

REVERSE - The sea



The sea is a central part of our shared identity. It binds us together and also represents our view of the world. Historically, the sea has shaped our society and culture through seafaring, trade and fishing. We also use the sea nowadays as a sanctuary that invites activity, reflection and relaxation. The sea continues to shape our future with a focus on sustainable energy and biodiversity.

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Museums and research and educational institutions

In January 2024, Danmarks Nationalbank invited a number of museums, research and educational institutions in the fields of art, culture and science to propose motifs and themes for the future banknotes, see box 3.³ The museums and research and educational institutions were invited based on various relevant parameters.

Firstly, state-owned or state-recognised museums and accredited research and educational institutions were invited. Secondly, the museums and research and educational institutions invited represented a wide range of disciplines. The institutions invited were chosen because they represent different disciplines, from which motifs are particularly well-suited to adorn the new banknotes. These include motifs of animals, plants, literature, science and architecture, all of which could suggest of many different and suitable motifs and themes for the banknotes.

Danmarks Nationalbank also wanted to invite institutions from different parts of the country. That's why major museums, research and educational institutions from different parts of the country were invited as much as possible. The size of museums was measured by visitor numbers, and the size of research and educational institutions was by student numbers. Danmarks Nationalbank also wanted to ensure that museums, research and educational institutions from Denmark and Greenland were invited, as Danish banknotes are also used in Greenland. The Greenland National Museum was therefore also invited to make its proposals for the new banknotes.

More than 150 proposals from museums, research and educational institutions

The museums, research and educational institutions were all invited to provide between four and eight proposals for motifs and themes within their subject area. In the invitation, Danmarks Nationalbank recommended that the proposed motifs and themes should have some important meaning for society, be relevant and relatable to the population and easily recognisable, as this makes it easier to determine whether a banknote is genuine or counterfeit when used for payment.

Danmarks Nationalbank did not set any requirements for the type of motifs and the concept for the new banknote series was not yet known at this time. The motifs could therefore be anything from people, plants and animals to iconic artworks and architecture, historical and cultural references or events and symbols.

The proposals should therefore not be finalised design concepts nor processed graphic representations, as this decision will be made by Danmarks Nationalbank in the subsequent design process that follows this publication of the selected motifs and themes on the banknotes, see box 1.

³ 27 of the invited museums and institutions chose to submit proposals to Danmarks Nationalbank.

⁴ The Faroe Islands have their own banknotes with Faroese motifs, which is why Faroese museums, research and educational institutions, experts and citizens were not involved in the selection of motifs and themes.

By the deadline of 8 March 2024, Danmarks Nationalbank had received more than 150 motif suggestions, including 40 people and more than 100 animals, plants and historical objects, works of art, buildings, events, patterns, etc.

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The list of invited museums, research and educational institutions

- Aarhus School of Architecture
- ARos
- · Astronomy, Aarhus University
- · Biology, Aalborg University
- · Department of Biology, University of Southern Denmark
- · DAC (Danish Architecture Centre)
- Danish Museum of Science & Technology
- · The Danish Film Institute
- The Danish National School of Performing Arts
- Den Gamle By
- Designmuseum Danmark
- Design School Kolding
- The Royal Academy of Music, Aarhus/Aalborg
- The Royal Danish Academy Architecture, Design, Conservation (Architecture and Design)
- The Royal Danish Academy of Music
- Dramaturgy and Musicology, Aarhus University
- The Fisheries and Maritime Museum
- Geophysics and Space Technology, Technical University of Denmark
- Greenland National Museum & Archives
- National Institute of Aquatic Resources, DTU Aqua
- Department of Geoscience, Aarhus University
- Department of Geosciences and Natural Resource Management, University of Copenhagen
- The Royal Danish Collection
- Comparative Literature, University of Copenhagen
- Comparative Literature, University of Southern Denmark
- Louisiana Museum of Modern Art
- M/S Maritime Museum of Denmark
- Moesgaard Museum
- National Museum of Denmark
- Nature and Culture Communication, University College of Northern Denmark
- Ny Carlsberg Glyptotek
- Museum Odense
- Science Museums, Aarhus University
- Skagens Museum
- National Gallery of Denmark
- Denmark Natural History Museum (Zoological Museum, Geological Museum, Botanical Museum and Botanical Gardens)
- Theatre and Performance Studies, University of Copenhagen.

Note: 27 of the invited museums and institutions chose to submit proposals to Danmarks Nationalbank.

Source: Danmarks Nationalbank.

A desire to engage users of the banknote

From the extensive material, it became clear that museums and research and educational institutions had many suggestions for people that were largely linked to their discoveries and impact on society. This created the foundation for the concept of "Important achievements and the people behind them".

The core elements of the concept are an illustration of the achievement and a portrait of the person behind it. The idea for the concept was developed from a desire to utilise the copper print in the banknotes to engage users of the banknotes. This was done by showing illustrations of achievements that have and have had relevance and impact on society in the copper print of the banknotes. Another key element of the concept is that the portrait of the person behind the achievement appears in the banknotes' main security feature, the watermark, which is what appears when the banknote is held up to the light. This invites the public to explore the design of the banknotes and examine their most important security feature, ensuring a secure and aesthetic new banknote series.

Danmarks Nationalbank compiled a list of 22 achievements and the people behind them based on the concept to be included in the first presentation to the expert group. The list was created based on suggestions from museums and research and educational institutions. When compiling the list, various parameters were emphasised, including which achievements or people were suggested most frequently. ⁵ A summary of the 22 achievements and individuals is shown in box 4.

When selecting which people and achievements to include in the list, Danmarks Nationalbank had to sort through many suggestions from museums and research and educational institutions. Some proposed people were discarded because they are already portrayed on some of the newer banknote series, while others were discarded because there are not enough images to establish a portrait for the banknotes. Suggestions for portraits of royalty and living people were also discarded, as Danmarks Nationalbank has no tradition of portraying them on Danish banknotes. Danmarks Nationalbank also added a few suggestions to the list to increase the versatility of the list's subject areas.

A common theme that ties the banknote series together

Once the concept for the front of the banknotes was finalised, it was clear that a common theme for the motifs on the reverse could help tie the banknote series together across the four denominations, 50, 100, 200 and 500-krone. After a major sorting and categorisation process of the museums' and research and educational institutions' suggestions for motifs and themes, four themes stood out: the sea, flowers, everyday life and animals. The possibility of mixing the themes was also open at this point.

The large number of suggestions for the themes were included in the presentation to the expert group and later in the public involvement to gain greater insight into which themes would resonate most with the population.



The concept invites the public to explore the design of the banknotes and examine the most important security feature.

⁵ Inge Lehmann and her discovery of the Earth's solid inner core was highlighted by six different museums, research and educational institutions. In comparison, the next most frequently proposed people and achievements were suggested by two different institutions.

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The Thule Expedition

Danish design and architecture

Research into yeast cultures

Fairytales

Children's poetry

The Earth's core

Poetry

Research in continental drift

Rap music

Kap music

Geology

Mill technology

Danish design

Barndommens Gade (Literature)

Astronomy

Acting

Silent films

Depictions of society

Descriptions of everyday life

Cirkeline

Grundtvigianism

Philosophy

Art

Portrait

Arnarulunnguaq

Expedition participant

Arne Jacobsen

Architect, design

Emil Christian Hansen

Biologist

H.C. Andersen

Writer, poet, thinker

Halfdan Rasmussen

Poet

Inge Lehmann

Seismologist, State Geodesist

Inger Christensen

Poet, writer

Marie Hammer

Zoologist

Natasja Saad

Rapper, singer, songwriter

Niels Steensen (Steno)

Theologian, physician, geologist

Poul La Cour

Physicist, inventor, teacher

Poul Henningsen (PH)

Architect, copywriter, debater

Tove Ditlevsen

Writer, poet

Tycho Brahe

Astronom

Ove Sprogøe

Actor

Asta Nielsen

Actor

Benny Andersen

Poet, composer

Dan Turèll

Writer, poet, musician

Hanne Hastrup
Cartoonist, writer

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N.F.S. Grundtvig Priest, thinker, poet, political figure

Søren Kierkegaard

Philosopher, thinker, theologian, writer

Vilhelm Hammershøi

Painter

REVERSE

Themes

Flowers

Animals

The sea

Everyday life

Composites

A combination of the themes

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03

Expert group

Based on the established concept and the selected motifs and themes, Danmarks Nationalbank appointed an expert group to initially select a number of motifs and themes prior to public involvement.

The expert group was composed of experts in banknotes, art, culture and science, whose insight and expertise would help ensure that the chosen motifs and themes reflected Danish and Greenlandic culture and society in a relatable, modern and relevant way, see box 4. The group's work focused solely on the conceptual level in an effort to find suitable themes and motifs for the banknotes. The overall aesthetic expression is determined by Danmarks Nationalbank in the subsequent design process.

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Danmarks Nationalbank's expert group for the selection of motifs for new banknotes

External experts

Anne Hedensted Steffensen, CEO of Danske Rederier, Vice Chair of the Board of Directors and Jubilee Foundation of Danmarks Nationalbank

Else Marie Kofod, former head and chief archivist, Danish folklore archives Gert Posselt. Senior Editor. The Danish Language and Literature Society

Mikkel Bogh, Director and Professor, Centre for Practice-based Art Studies, University of Copenhagen

Minik Thorleif Rosing, Professor, Geology, University of Copenhagen

Mårten Gomer, Product Manager Banknotes and Coins, Sveriges Riksbank

Ulla Tofte, Director, National History Museum

Participants from Danmarks Nationalbank

Christian Kettel Thomsen, Governor of Danmarks Nationalbank (Chairman) Niels Kaas, Treasurer Daniel Krarup Rosenstrøm, Head of Purchasing and Quality Jeanette Skov Jensen, Head of Design

Observers

Rasmus Junggreen Lassen, Office Manager, Ministry of Industry, Business and Financial Affairs Carina Moselund Jensen, Head of Secretariat, Danmarks Nationalbank Jakob Mølgaard Heisel, Head of Cash Services and Analysis, Danmarks Nationalbank

Source: Danmarks Nationalbank.

Achievements with a big impact on our culture and society

Prior to the first meeting of the expert group on 24 April 2024, Danmarks Nationalbank asked the members to select achievements and portraits from the list, see box 3, and to justify their choice, for example based on the person and the achievement's influence on culture and society, as well as their expectation of recognisability for the general public. The members also had to decide which achievements would be best suited to be illustrated, as it was decided that the achievements would be the main illustration on the front of the banknote. Members were not bound by the list and could make their own suggestions for people and achievements.

The expert group members were also asked to select themes for the back of the notes from the list and justify their choice of theme, e.g. based on the extent to which they felt it represented Danish and Greenlandic culture and society.

The expert group's review of the selected portraits and achievements initially resulted in broad support for six achievements represented by seismologist and state geodesist Inge Lehmann, author Tove Ditlevsen, expedition participant Arnarulunnguaq, poet and composer Benny Andersen, astronomer Tycho Brahe and architect and designer Arne Jacobsen.

Following the review, the members chose to expand the number of portraits and achievements from six to eight, see table 1. This would provide a better basis for either choosing a common theme or putting together a mixed series based on the outcome of the public involvement. ⁶ In this light, the expert group chose to allow author Hans Christian Andersen and physiologist, doctor and researcher Marie Krogh to also be included in the public involvement.

Hans Christian Andersen was part of the list of people from museums, research and educational institutions, while Marie Krogh was brought up as an alternative proposal at the expert group meeting, citing her achievements in medical science and her role as a pioneer for female scientists. At the same time, Hans Christian Andersen could also be included in a series focusing on literature or popular figures if a recurring theme was to be established, while Marie Krogh could be included in a series with people and achievements related to science.

The expert group then selected the eight achievements and people to be included in the public involvement process, see table 1.

TABLE 1
Selected people and achievements at the expert group meeting 24 April 2024

Achievement	Person
The Earth's core	Inge Lehmann
The Thule Expedition	Arnarulunnguaq
Barndommens Gade (Literature)	Tove Ditlevsen
Depictions of society	Benny Andersen
Astronomy	Tycho Brahe
Danish design and architecture	Arne Jacobsen
Fairy tales	Hans Christian Andersen
Treatment of diabetes	Marie Krogh

Note: People and achievements are ranked by most positive feedback at the meeting. All achievements and people were included in public involvement that took place from 13 May - 2 June 2024. Source: Danmarks Nationalbank.

⁶ An example of a recurring theme could be a series focusing on science, where all portraits, achievements and motifs relate to science.

Broad support for the sea, flowers or everyday life on the back of the banknotes

The expert group's review of themes for the back of the banknotes resulted in broad support for the sea, flowers and everyday life as potential reverse side themes. Among the arguments was that the sea has great importance for our past, present and future. It is also a versatile theme that can include a wide range of relevant motifs, including animals and plants. One of the arguments in favour of flowers as a theme was that it allows for beautiful motifs suitable for banknotes. Everyday life, on the other hand, could give the banknotes a modern look and make the motifs relatable. All the themes also allowed for Denmark and Greenland to be represented.

There was also a clear desire among the members of the expert group for a reverse theme that would tie the motifs together across the banknote series, as well as a theme relatable to the general public. This contributed to a combination of the themes (composite) being rejected.

04

Public involvement

Banknotes have traditionally been given both cultural and historical significance – almost as a tangible symbol of a country's identity. Danmarks Nationalbank therefore wanted to involve the Danish and Greenlandic public in the development of the new banknotes – also to ensure an open process. Several other central banks have also opted to include public input in the development of new banknotes in recent years, including the European Central Bank.⁷

The primary purpose of involving the Danish and Greenlandic public in the development of the new banknotes was to give them the opportunity to express their opinions and give Danmarks Nationalbank and the expert group insight into which motifs and themes resonate most with the population. This provided a more solid foundation on which to make the final decision. It can also help to increase the security of the banknotes if the users of the banknotes are involved in selection of their motifs at an early stage. It should mean that the public are more aware of the appearance of banknotes and thus better able to spot counterfeit banknotes when using them for payments.

From 13 May to 2 June 2024, anyone could participate in Danmarks Nationalbank's survey on achievements, people and themes for the new banknotes, see box 5. This is the first time Danmarks Nationalbank has directly asked the citizens of Denmark and Greenland for their opinion on what should be on the banknotes. More than 76,000 Danish and Greenlandic citizens participated in the survey. The questionnaire was available in Danish, Greenlandic and English.

In the survey, citizens were presented with eight achievements and people, as well as three reverse themes chosen by the expert group based on suggestions from museums, research and educational institutions and Danmarks Nationalbank. They were asked to rate the achievements, people and themes based on a number of relevant parameters. In the questionnaire, respondents were asked about the suitability of the achievements, people and themes on the new banknotes, relevance now and in the future, representativeness and recognisability. These questions give an indication of the importance and relevance of the topics and themes to the population. The questions provide insight into whether the themes and motifs represent the people who will use the new banknotes for payments. Finally, the public had the opportunity to make suggestions for other achievements and people.

Important to raise awareness of the survey

To achieve as many responses as possible, Danmarks Nationalbank focused on ensuring a high level of awareness of public involvement, including ensuring awareness of the survey among the Danish and Greenlandic population. Therefore, on 13 May 2024, Danmarks Nationalbank held a press conference on public participation in connection with the opening of the survey, and the press was regularly invited to publish stories that spread awareness of the opportunity to express an opinion.

In the period leading up to the end of public involvement period on 2 June 2024, Danmarks Nationalbank also ran campaigns to spread awareness of the questionnaire, including via Danmarks Nationalbank's own profiles on Facebook



More than 76,000 citizens participated in the new banknote survey.

 $^{^{7}}$ See European Central Bank, The redesign process (\underline{link}).

and Instagram. The survey was also brought to the attention of a number of libraries, research and educational institutions, interest organisations such as Ældre Sagen and several disability organisations via Pengeinstitutternes Kontaktudvalg. Finally, Danmarks Nationalbank focused on raising awareness of the questionnaire among the Greenlandic population, for example, via Greenlandic media and a social media campaign targeted at the Greenlandic population.

Danmarks Nationalbank also conducted an independent survey with more than 1,000 representative citizens to compare the results based on the respondents who accessed the questionnaire via Danmarks Nationalbank's website, campaigns and social media with the results based on the representative sample. There were no major discrepancies between the results from the representative sample and the overall results from respondents who accessed the questionnaire via website, campaigns and social media.⁸

In the following sections, we present the results of public involvement based solely on the responses from the more than 76,000 citizens who accessed the questionnaire via Danmarks Nationalbank's website, campaigns and social media.

⁸ To ensure that as many people as possible could access and participate in the survey, Danmarks Nationalbank chose not to include documentation of participation in the form of background variables, IP address or similar. Therefore, a representative survey with more than 1,000 respondents was conducted. The maximum deviation between the results from the representative sample and the results from Danmarks Nationalbank's website, campaigns and social media was +/- 0.5 points. The overall responses do not show any signs that one type of citizen (attitudes) is heavily overrepresented, e.g. signs of unrealistically fast response times, unusual clumping of response times or many identical responses.

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Public involvement in choosing themes and motifs for new banknotes

From 13 May - 2 June 2024, Danmarks Nationalbank surveyed the public's opinion on a number of motifs and themes for the future banknotes, including which people and achievements would be best suited to appear on the future banknotes. The data collection was conducted by Ramboll Xact and is based on responses from 76,311 people. Independently of this survey, Norstat, on behalf of Ramboll Xact, asked a representative sample of 1,004 people over the age of 18 about the same questions during the first period of public involvement (from 13 May - 20 May 2024).

Respondents answered a series of questions about which front designs best represent the Kingdom of Denmark and which designs they could best relate to, which are most recognisable to them and which they believe are relevant now and in the future. Similarly, respondents were asked which reverse theme they consider most suitable for the future banknotes, including how well it represents the Kingdom, is important and relatable to the respondent and is relevant now and in the future. Finally, the respondents were given the opportunity to make their own suggestions for the notes, including other people and achievements. The types of questions from public involvement are represented below:

Question 1 (note reverse theme):

On a scale of 0-10, rate how suitable you think the theme would be for the upcoming banknote series.

Question 2 (note reverse theme):

Evaluate the following statements about the theme [the sea]...

- 1. The theme represents the Kingdom of Denmark well.
- 2. The theme is important to me.
- 3. The topic is relevant now and in the future.
- 4. The theme can make the notes easy to recognise.

Question 3 (note front motifs):

On a scale of 0-10, rate how suitable you think the achievement and the person behind it would be for the upcoming banknote series.

Question 4 (note front motifs):

Evaluate the following statements about [Inge Lehmann and the Earth's core]...

- 1. The person and achievement represent the Kingdom of Denmark.
- 2. The person and achievement are easy to relate to.
- 3. The person and achievement are relevant now and in the future.
- 4. The person and the achievement can make the notes easy to recognise.

I know the person and the achievement.

Question 5 (note front motifs):

Do you have any other suggestions for an achievement and a person that would be suited for portrayal on the new banknotes? (Please note that no living people are depicted).

- 1. Person.
- 2. Achievement.

Source: Danmarks Nationalbank.

Good support for the achievements and people

The public involvement results show that there is general support for the eight selected achievements and the people behind them.

When it comes to the question of how well the achievement and the person behind it will be suited to the upcoming banknote series, Hans Christian Andersen and fairy tales were the strongest in the study. On a scale from 0 to 10, 2 out of 3 respondents gave Hans Christian Andersen and fairy tales a score of 9 or 10. On average, respondents gave Hans Christian Andersen and fairy tales a score of 8.7, see table 2.

Tycho Brahe, Tove Ditlevsen, Arne Jacobsen and their respective achievements all score above 7 in the respondents' assessment of the person and achievement, while Inge Lehmann, Marie Krogh, Arnarulunnguaq and Benny Andersen are in the bottom half – all with a score between 5.6 and 6.4.

The results emphasise that general support for the selected motifs and themes is good. However, the results are only an expression of the respondents' immediate impression and knowledge of the achievements and people and only give a first indication of their preferences among the selected motifs and themes.

TABLE 2

Hans Christian Andersen and fairy tales were strongest in public involvement

Person and achievement	Average score	
Hans Christian Andersen and fairy tales	8.7	
Tycho Brahe and astronomy	7.4	
Tove Ditlevsen and Barndommens Gade	7.1	
Arne Jacobsen and Danish architecture and design	7.1	
Inge Lehmann and the Earth's core	6.4	
Marie Krogh and the treatment of diabetes	6.4	
Arnarulunnguaq and the Thule Expedition	5.9	
Benny Andersen and depictions of society	5.6	

Note: The value indicates the average score for the achievements and the people behind them based on the statement: "On a scale from 0-10, rate how well the achievement and the person behind it will fit on the upcoming banknote series". People and achievements are ranked by highest score.

Source: Danmarks Nationalbanken's citizen involvement 2024.

In addition to the respondents' immediate assessment and knowledge of the eight proposals for achievements and people, Danmarks Nationalbank asked about five statements that are particularly relevant to Danmarks Nationalbank in its desire to create a secure and aesthetic banknote series that represents the users. The questions broadly follow the input requested and received by the European Central Bank for the launch of new banknotes.⁹

The statements include questions about awareness of the achievement and person (familiarity), the relevance of the achievement and person now and in the future (relevance), how well they represent the Kingdom of Denmark (representation), how easy the achievement and person are to relate to (relatable), and how recognisable they will be on future banknotes

⁹ See European Central Bank, The redesign process (*link*).

(recognisability). The results from the five sub-questions are shown in chart 1. The chart on the left shows the least known achievements and people among the public who also scored the lowest in the first question. The chart on the right shows the most famous people and achievements.

Lesser-known achievements and people are also highly relevant to the public.

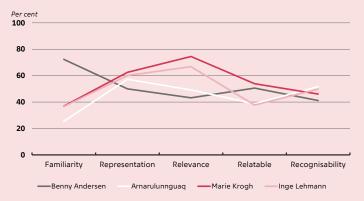
Among the achievements and people that are less well-known to the respondents are Marie Krogh and Inge Lehmann. However, around 7 out of 10 respondents believe that they and their achievements are highly relevant now and in the future. Around 6 out of 10 respondents also believed Marie Krogh and Inge Lehmann and their achievements are also good representatives of the Kingdom of Denmark. The same applies to Arnarulunnguaq and the Thule Expedition – otherwise the least known of the eight people and achievements in the public involvement, see chart 1.

Among the most famous people and achievements, Hans Christian Andersen and fairy tales rated highest across all statements about the front motifs. More than 9 out of 10 respondents indicated that Hans Christian Andersen and fairy tales represent the Kingdom of Denmark well, are easy to relate to and can be a recognisable motif. The results also suggest that Tycho Brahe, Arne Jacobsen and Tove Ditlevsen and their achievements are all well known in Denmark and Greenland. According to the respondents, Tycho Brahe and Arne Jacobsen in particular and their achievements, represent the Kingdom of Denmark well, as they are known by the population, their achievements are relatable, and they are relevant both now and in the future.

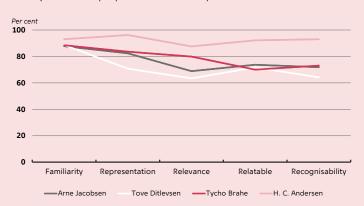
CHART 1

Lesser known achievements and people are relevant to the public

Percentage of respondents who said "yes" to the five statements about the front motifs (least known people and achievements)



Percentage of respondents who said "yes" to the five statements about the front motifs (most famous people and achievements)



Source: Danmarks Nationalbank

Finally, a sample of the Greenlandic responses ¹⁰ gives a clear indication that the Thule Expedition and Arnarulunnguaq are strong in Greenland. Along with Hans Christian Andersen and fairy tales, Arnarulunnguaq and the Thule Expedition scored close to 9 in the respondents' immediate assessment and knowledge of the two proposed front motifs. This should also be seen in light of the fact that half of all respondents (Danish and Greenlandic) state that Arnarulunnguaq and the Thule Expedition will be good representatives of the Kingdom of Denmark on the upcoming banknote series.

A lot of interest in contributing people and achievements

The survey also shows that around 45 per cent of respondents chose to write one or more people in the text fields as an alternative to the eight people included in the public involvement. As a result, Danmarks Nationalbank has received approximately 45,000 person suggestions from more than 1,750 different people through the questionnaire's text fields. The vast majority of such proposals were supported by achievements, whereas only a few respondents suggested achievements without associated person suggestions.

The five people most often mentioned in the text fields were nuclear physicist Niels Bohr, singer Kim Larsen, journalist and author Lise Nørgaard, author Karen Blixen and priest and poet N. F. S. Grundtvig. 5 per cent of all responses received nominated Niels Bohr as an alternative portrait suggestion for the front, while 2 to 4 per cent of respondents nominated the other four candidates.

The proposals must be weighed against the fact that the results of the public involvement show that there is broad support for the selected achievements and people. For example, more than 40 per cent of respondents gave Arne Jacobsen, Tycho Brahe and Hans Christian Andersen a score of 9 or 10 in their initial assessment of how suitable they are for a future banknote series. It's also worth mentioning that 2 out of 3 of the public involvement respondents indicated that Marie Krogh and Inge Lehmann are good representatives of the Kingdom of Denmark and that their achievements are relevant now and in the future, just as Arnarulunnguaq scored well in the Greenlandic responses. This indicates that there are already strong portrait opportunities among the eight selected for public involvement. ¹¹

Finally, 1 out of 5 respondents provided input in the "Other comments" field. Among the most frequent input from respondents is a desire for gender balance on the new banknotes and colour preferences.

The sea is the most popular theme for the reverse of the banknotes

Of the three possible themes, respondents across the Danish and Greenlandic responses to the public involvement survey rated "The Sea" as the most suitable for the reverse of the banknotes, see table 3.

Based on the respondents' initial assessment of the reverse themes, it is clear that the sea is the theme that is most relevant them and represents the Kingdom of Denmark. This applies to more than 8 out of 10 respondents, see chart 2. Several respondents also emphasised in the free text fields of the questionnaire that the sea connects Denmark and Greenland, and that there are strong connections to the sea and coastal areas where nature can be a focal point.

¹⁰ Between 13 May and 2 June 2024, Danmarks Nationalbank received at least 400 responses in Greenlandic. The responses are characterised by the questionnaire being answered/completed in Greenlandic and/or answered via the targeted campaigns in Greenland. However, respondents from Greenland may also have responded to the survey via social media or the Danmarks Nationalbank's website in Danish/English, which is why this is only a sample (minimum) of all Greenlandic responses.
¹¹ Niels Bohr and Karen Blixen were also portrayed on the latest series of banknotes from 1997.

Almost 2 out of 3 respondents also indicated that the theme is important to them. The sea theme can therefore help create a banknote series that represents those who use the banknotes.

In the free text fields in the Greenlandic responses¹², the theme "The Sea" is also strongly represented with a focus on nature, fishing and shipping. The sea as a theme on the reverse of the banknotes can help to bind them together across the Danish Realm, according to the responses.

TABLE 3

The sea will be best suited as a reverse theme according to the public

Themes	Average score
The sea	7.6
Flowers	5.4
Everyday life	4.5

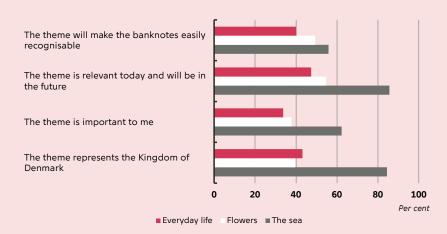
Note: The value indicates the average score based on the statement: "On a scale from 0 - 10, rate how well the theme will fit on the upcoming banknote series". The themes are ranked according to the highest score in public involvement based on the responses on Danmarks Nationalbank's website, etc.

Source: Danmarks Nationalbank.

CHART 2

The sea would make a great reverse theme according to citizens

Percentage of all respondents who said "yes" to the respective reverse theme statements



Note: The questions give an indication of the importance of the reverse themes to the population, and thus how the banknotes represent the public who will use the new banknotes for payments.

Source: Danmarks Nationalbank.

 $^{^{12}}$ See footnote 10 for the definition of Greenlandic responses in the questionnaire survey.

05

Deciding on the choice of motifs and themes

Based on suggestions from museums and research and educational institutions in the fields of art, culture and science, discussions in the expert group and the results of the public involvement, the expert group has decided which achievements and people will be featured on the front of the new banknotes and which theme will be featured on the reverse of the banknotes.

The concept for the front of the new banknotes is "Important achievements and the people behind them", while the motifs on the back of the banknotes are themed around the sea. The achievements and people that will be depicted on the front of the banknotes are Tycho Brahe and astronomy, Inge Lehmann and the Earth's core, Hans Christian Andersen and fairy tales, as well as Arnarulunnguaq and the Thule Expedition. The achievement will appear in copperplate on the banknote, while the portrait will be visible in the banknote's watermark. It will therefore be the achievement that stands out most when looking at the banknote. The portraits will be visible when the banknote is held up to the light.

The choice of the four achievements means that the achievements range from outer space to the Earth's inner core. They take us on a journey through the wondrous world of fairy tales and the relentless forces of nature. The achievements span many different fields, but share a common foundation of courage, curiosity and dedication. Each has expanded our understanding of the world, and collectively they bind us together.

The people and achievements selected are also based on suggestions from museums and research and educational institutions. They have been among the most popular with the expert group members, and are all relevant now and in the future according to the majority of the respondents who participated in the public involvement process. The sea as a reverse theme was also the most popular in the public involvement and expert groups, while many of the motifs from museums and research and educational institutions could also be related to the sea.

A number of aspects have been taken into account when deciding on the motifs and themes for the new banknotes. Among other things, motifs from Greenland and Denmark were wanted on the new banknotes. In addition, the aim was to ensure an equal distribution of men and women in the portraits on the banknotes, which has been achieved with the chosen people and achievements. It has also been positive that the banknotes can also highlight important and decisive achievements that, for various reasons, have not been known or recognised in their time. Finally, the fact that the selected achievements are internationally recognised and rooted in Denmark and Greenland has played a role.

In terms of geographical distribution, the sea opens up the possibility of showing motifs from both Denmark and Greenland. The achievements also collectively influenced Denmark and Greenland and represent diverse areas of culture, nature and science. The chosen motifs and theme therefore provide a unique opportunity to fulfil the desire for a banknote series that embraces the diversity of those who use the banknote.



Achievements range from outer space to the Earth's inner core. They take us on a journey through the wondrous world of fairy tales and the relentless forces of nature.

Overall, the motifs and theme provide an opportunity to show the versatility of Danish and Greenlandic culture. This will be reflected on the individual banknotes and will characterise the banknote series as a whole. The motifs and themes were also chosen because individually they are well suited to adorn the new banknotes, while together they can tell a coherent story.

Reasons for choosing Inge Lehmann and the discovery of the Earth's core

Until 1936, experts believed that the Earth consisted of a liquid inner core. Inge Lehmann changed that perception. With her readings of seismological measurements, she put forward her groundbreaking theory that the Earth has a solid inner core. Inge Lehmann's discovery was a major scientific achievement that revolutionised the understanding of the Earth's internal structure and contributed to the development of modern geophysics. Throughout her lifelong and tireless work in science, Inge Lehmann made many other discoveries that contributed to our understanding of the Earth's deep interior. She achieved great recognition and respect for her scientific discoveries abroad, but in Denmark she remained largely unknown.

When Danmarks Nationalbank started working on the new banknotes by inviting museums and research and educational institutions to suggest designs, Inge Lehmann was the person suggested most often. In the subsequent discussions in the expert group, her achievement and persona was also the most popular. Not surprisingly, the results of the public involvement showed that Inge Lehmann is not widely known to the Danish and Greenlandic population. Nevertheless, the results showed that around 60 per cent of respondents believe she represents the Kingdom of Denmark well, while 2 out of 3 indicate that her achievement is relevant now and in the future. By depicting Inge Lehmann and the Earth's inner core on the new banknotes, the focus is on a great scientific achievement and on Inge Lehmann as a role model in her field.

Reasons for choosing Arnarulunnguaq and the Thule Expedition

Between 1912 and 1933, seven Arctic expeditions were carried out from Thule Station in North Greenland. The Fifth Thule Expedition (1921-1924) was the largest and most significant of the seven expeditions. The 18,000 kilometre expedition went from Greenland to Canada and on to Alaska to end up in Russia. Expedition participant Arnarulunnguaq contributed extensive and crucial knowledge about survival in the extreme climates the journey travelled through. Her courage and dedication are considered crucial to the success of the expedition. The expedition's discoveries formed the basis of one of the world's most extensive Arctic collections, now housed at the National Museum in Copenhagen. 14

In the Greenlandic responses to the questionnaire on themes and motifs for the new banknotes, Arnarulunnguaq and the Thule Expedition were the most positively rated people and achievements. Arnarulunnguaq and the Thule Expedition provide a unique opportunity to tie the banknote series together across Denmark and Greenland. The positive opinions are not only supported by the Greenlandic responses. More than half of the Danish respondents answered yes to Arnarulunnguaq and the Thule Expedition representing the Kingdom of Denmark. Based on Arnarulunnguaq's unique and decisive contribution to the realisation of the fifth Thule Expedition and the positive feedback from Greenland and Denmark in the public involvement, Danmarks Nationalbank and the expert group have therefore decided that Arnarulunnguaq and the fifth Thule Expedition should be depicted on the new banknotes.

¹³ Read more about the Thule Expeditions in Den Store Danske encyclopaedia (*link*).

¹⁴ Read more about the Thule Expedition on the National Museum's website (*link*).

Reasons for choosing Hans Christian Andersen and fairy tales

Hans Christian Andersen's fairy tales are famous, loved, read and re-read around the world. Their marvellous universe immediately appeals to the child's imagination, but his unique ability to depict eternal human dilemmas adds a deeper layer to the fairy tales that also expands the adult reader's inner world. Hans Christian Andersen's fairy tales resonate with readers young and old all over the world, and have done so for more than 200 years. They live on through generations and are still relevant today because they open our eyes to important, universal human issues.

Hans Christian Andersen's fairy tales open up a wealth of beautiful and suitable motifs for the new banknotes. The universal issues of fairy tales transcend borders, time and place. They also have a unique and specific meaning for many Danes and can thus contribute to making the banknotes' motifs recognisable and relatable. In public involvement, Hans Christian Andersen and his fairy tales were the clear favourite across all questions. Hans Christian Andersen's fairy tales were also mentioned by the museums and research and educational institutions that were invited to suggest motifs and were emphasised during the expert group discussions. Danmarks Nationalbank and the expert group consequently decided that Hans Christian Andersen and his fairy tales will be depicted on the new banknotes.¹⁵

Reasons for choosing Tycho Brahe and astronomy

Today's advanced space technology dates back to the 16th century, when astronomer Tycho Brahe's observations paved the way for parts of modern astronomy. He literally changed our worldview and laid the foundation for later discoveries that the sun is the centre of the solar system. He innovated and revolutionised astronomy by developing accurate measuring instruments and collecting extensive data on celestial bodies. This led to the discovery of a new star called Stella Nova in 1572, and his work is the foundation of our knowledge of astronomy today. Tycho Brahe's achievements thus symbolise that the contribution of the individual in this world can also have a decisive and farreaching impact on posterity.

Tycho Brahe's extensive research and landmark discoveries in the world of astronomy open up a wealth of powerful images suitable for banknotes. His discoveries were also highlighted by the expert group and by the research and educational institutions and museums that were invited to suggest designs and themes for the new banknotes. It was also evident from the public involvement results that he was highly recognised by the respondents, while being rated highly across the questions on representativeness and relevance now and in the future. With this in mind, Danmarks Nationalbank decided that motifs of Tycho Brahe and astronomy will adorn the new banknotes.

Reasons for choosing the sea as a theme

The sea is a central part of our shared identity. It binds us together and represents our view of the world. We are anchored in the life and currents of the sea that fascinate us and symbolise hope and possibility. The sea is a home for animals and plants and a sanctuary for humans. Historically, the sea has shaped our society and culture through seafaring, trade and fishing. We also use the sea nowadays as a sanctuary that invites activity, reflection and relaxation. The sea continues to shape our future with a focus on sustainable energy and biodiversity.

¹⁵ Hans Christian Andersen has previously been portrayed on the banknote series from 1952. However, the results from the broad involvement of the public, experts and professional institutions show strong support for Hans Christian Andersen and fairy tales is. For example, more than 95 per cent of respondents in the public involvement survey indicated that Hans Christian Andersen and his fairy tales represent the Kingdom of Denmark, while more than 90 per cent have stated that Hans Christian Andersen and his fairy tales are easy to relate to.

While many of the chosen exploits for the front of the banknotes date back more than 100 years, seascapes can help bring the banknotes into the present. The sea is a geographical feature of Denmark and Greenland, which are surrounded and bound together by water. The theme provides an opportunity to show the connection people in Denmark and Greenland have to the sea and coastal areas, and how nature can be the focal point.

The public involvement results also support the choice of the sea as the theme for the reverse of the banknotes. The sea was rated the highest of the three selected themes.

"The Sea" was also the theme that received the most support in the discussions in the expert group, and many of the suggestions that Danmarks Nationalbank received from museums and research and educational institutions could also be related to the sea. With this in mind, the sea has been chosen as the theme for the motifs on the reverse of the new banknotes.

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The analysis consists of a Danish, English and Greenlandic version. In case of doubt as to the correctness of the translation, the Danish version will prevail.

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Editing completed on 30 August 2024

