

Information and data visualization

Saara-Maria Kauppi

Visual communication

Visual communication is the practice of graphically representing information to efficiently, effectively create meaning

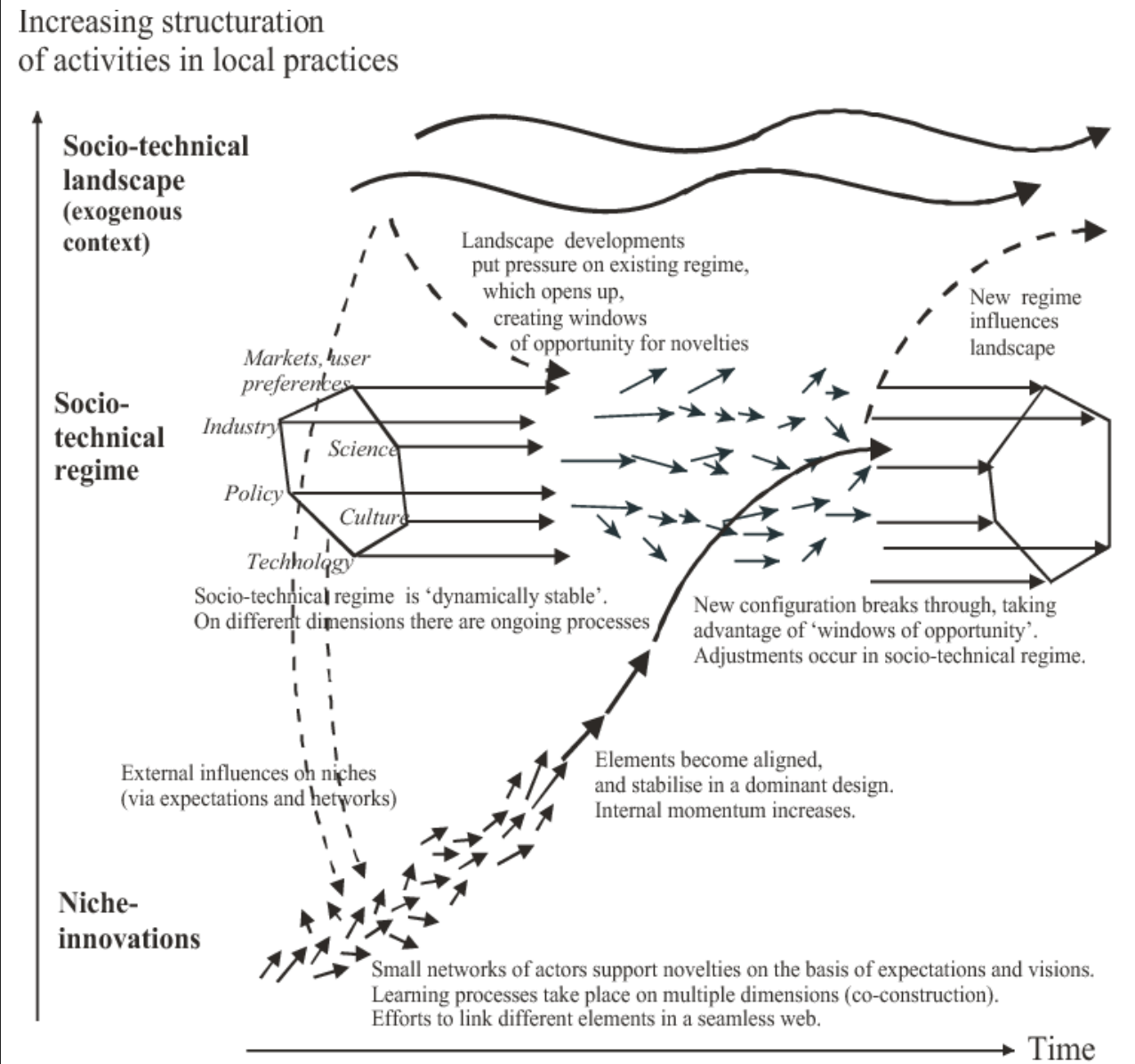
The meaning of visual communication (for me)

- Can be used for many purposes
 - Information visualisation
 - Visual story telling
 - Data visualisation
- Helps to understand complexity
- Helps to focus
- Creates novel understanding
- Aims for beauty, aesthetics

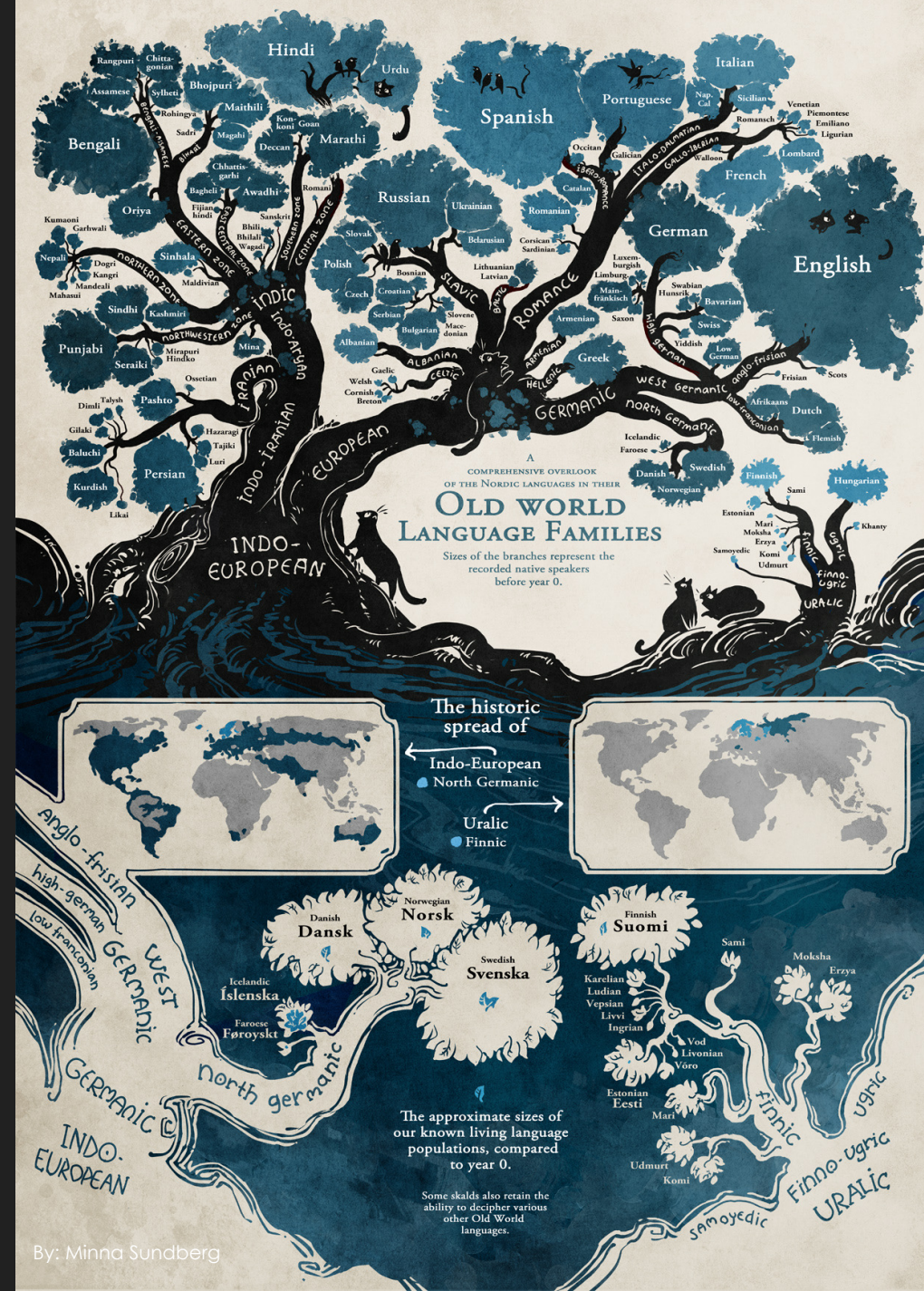
Meaningful Combinations



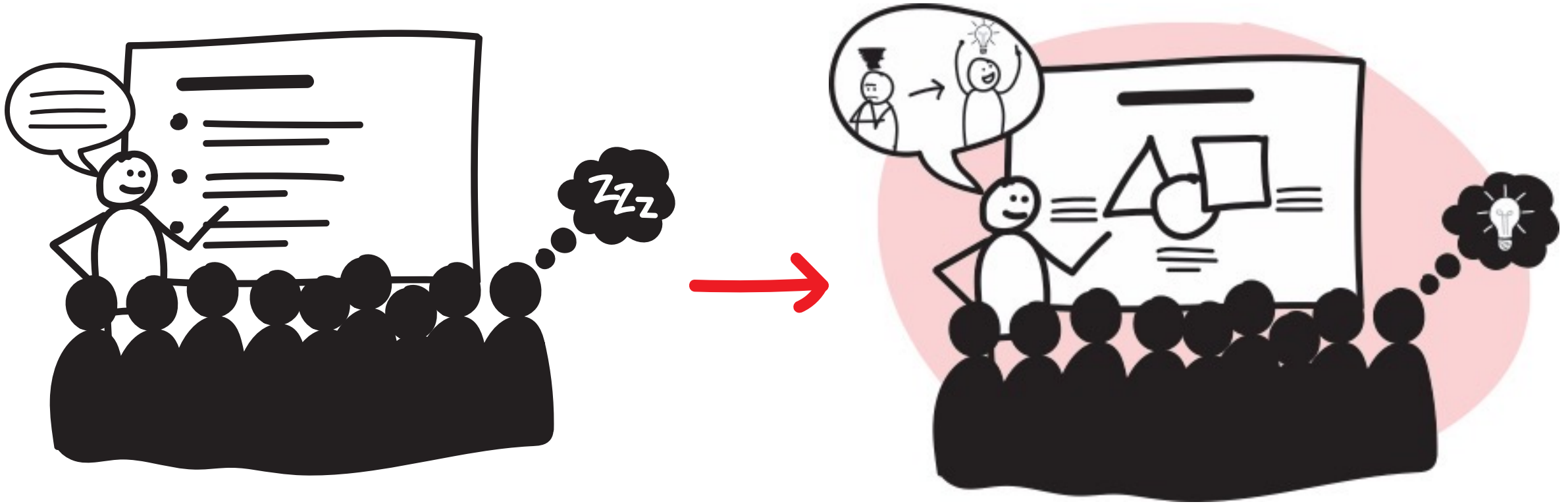
Visualisations help to understand complexity



To better understand
information or to explore

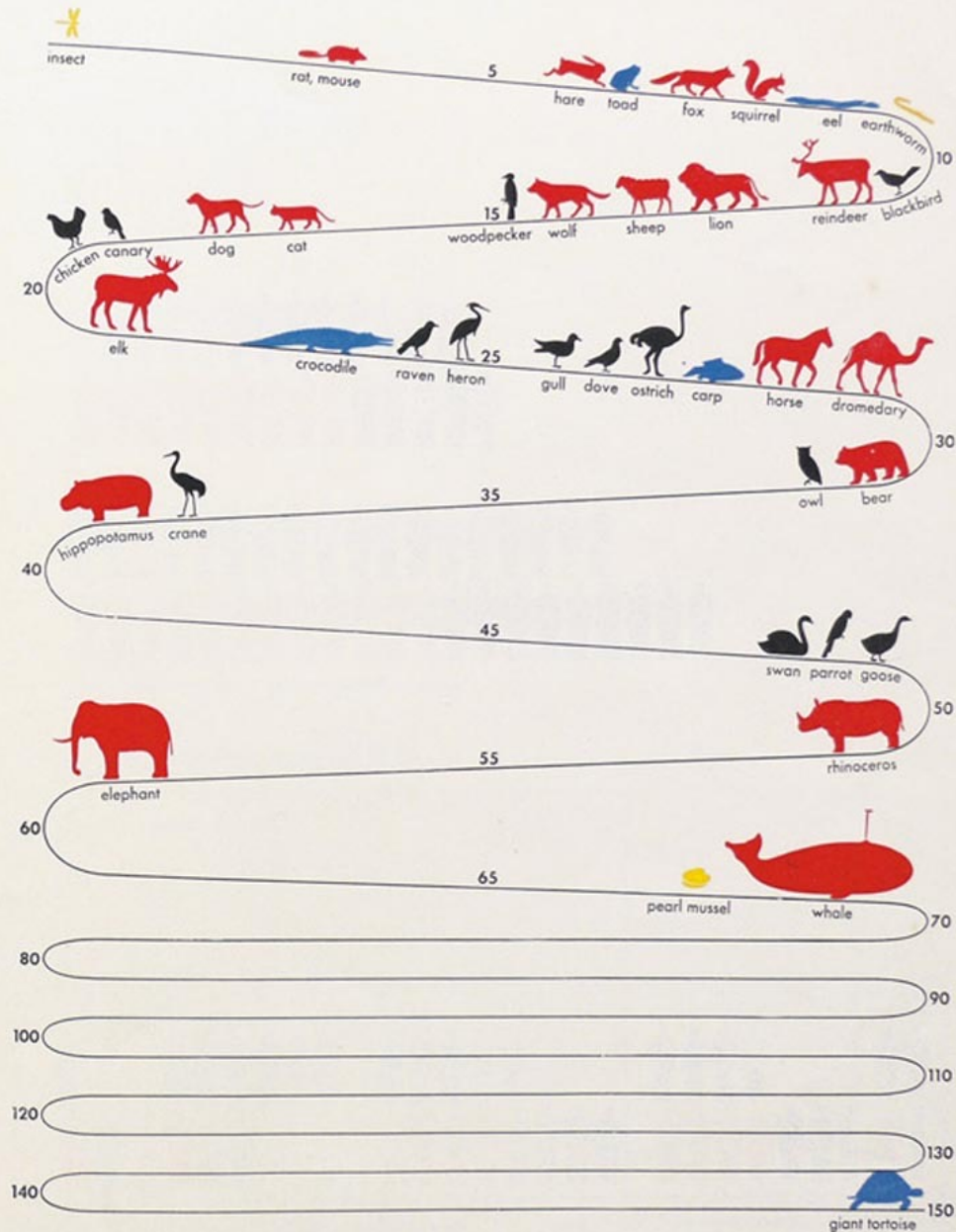


Using images to engage with the audience



Images: Ole Andreas Alsos

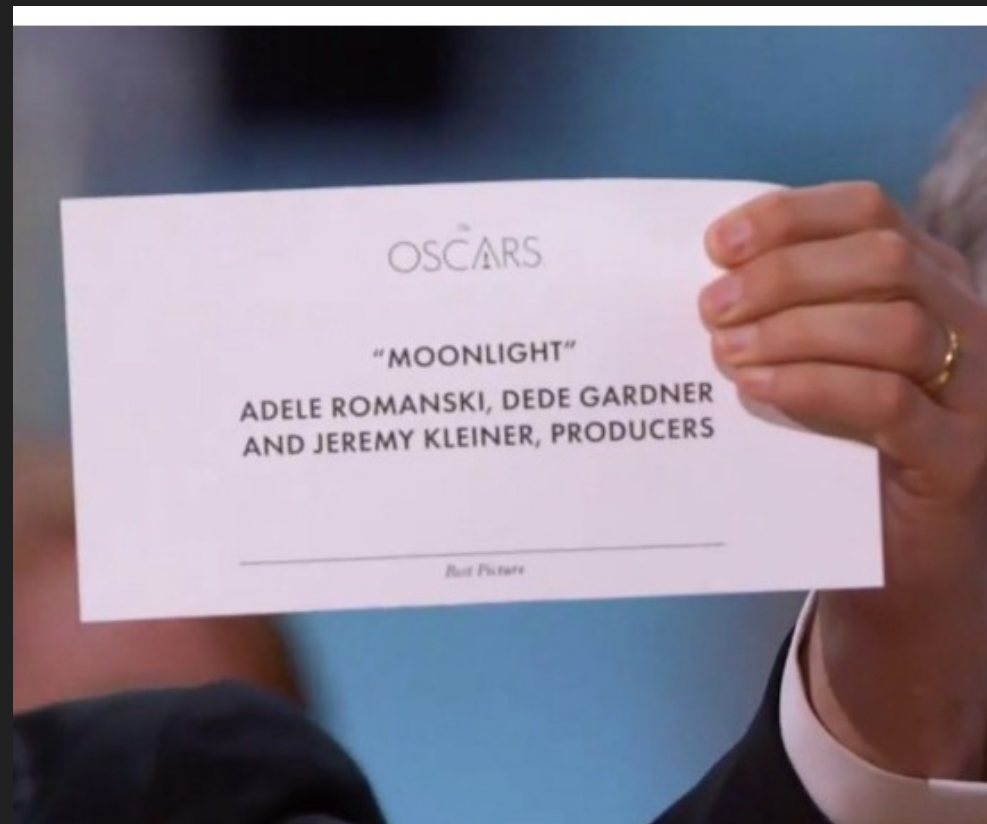
How Long Do Animals Live?



red: mammals black: birds blue: other vertebrates yellow: invertebrates

Average ages which certain animals may be expected to reach, based on reports of zoos and estimates of biologists. Individuals have been reported as far older. (Data from Field Museum of Natural History.)

Prepared for Compton's
Pictured Encyclopedia
© International Foundation
for Visual Education



Original televised screenshot. Image: ABC

before



after



Same text, same elements, but different styling. Image: [benjamin bannister](#)

Proximity





Who

Why

What

How

W W W H

The data

DATA SET 1:

Average rainfall per year

Oslo – 115 days

Bergen – 200 days

Kristiansand – 136 days

Trondheim – 146 days

Tromsø – 160 days

DATA SET 2 :

Visual Communications class growth

2020 – 160 students

2021 – 350 students

2022 – 1050 students

TABLES

City	Average rainfall per year in days
Oslo	115
Bergen	200
Kristiansand	136
Trondheim	146
Tromsø	160

Year	Number of students in Visuell Formidling class
2020	160
2021	350
2022	1050

Average rainfall per year in days

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Number of students in Visuell Formidling class

2020	160
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PRECIPITATION

Oslo	115
Bergen	200
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VISUELL FORMIDLING

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VISUELL FORMIDLING

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PRECIPITATION

200 Bergen

160 Tromsø

146 Trondheim

136 Kristiansand

115 Oslo

GRAPHS

BAR GRAPH

PRECIPITATION

200 Bergen

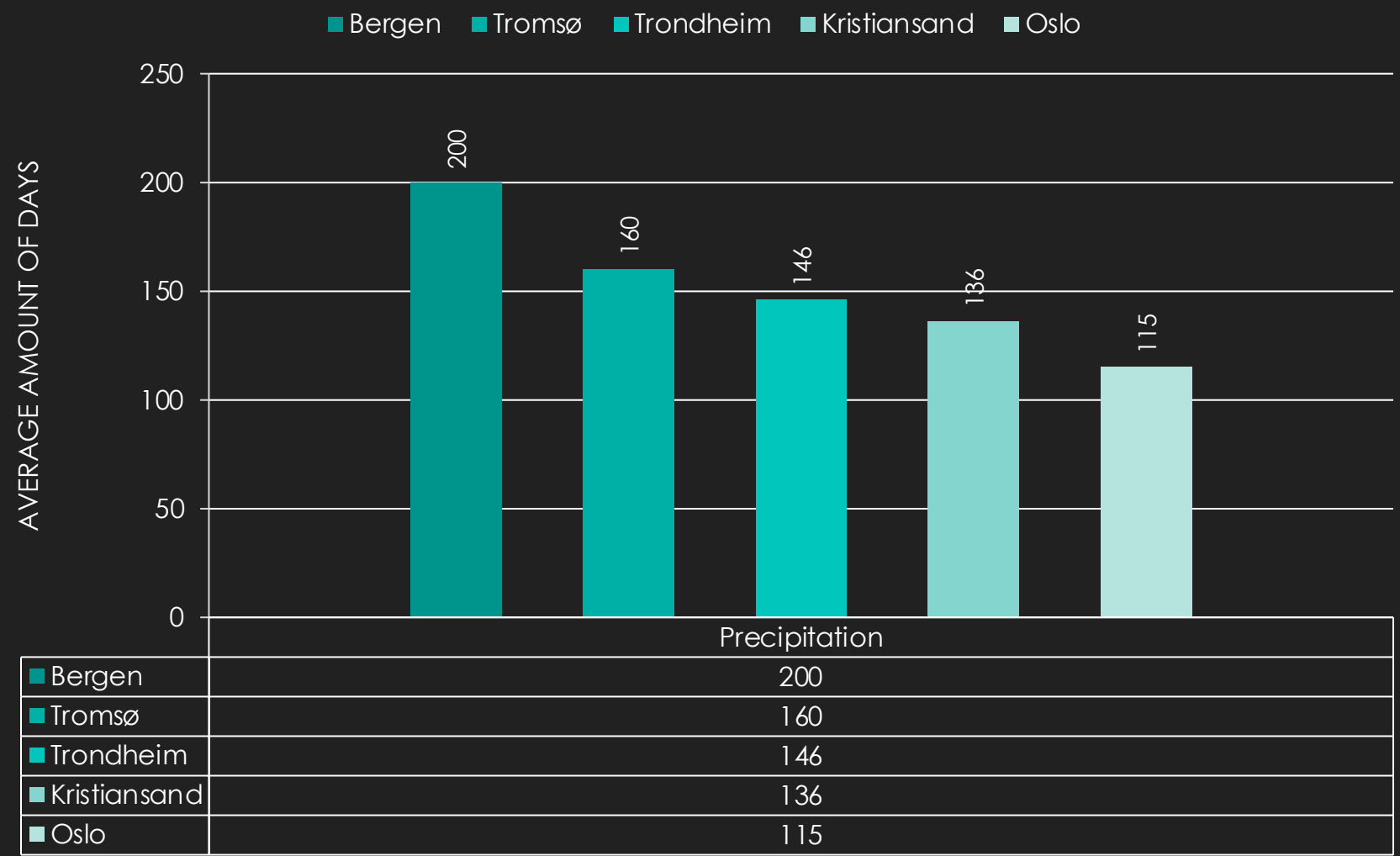
160 Tromsø

146 Trondheim

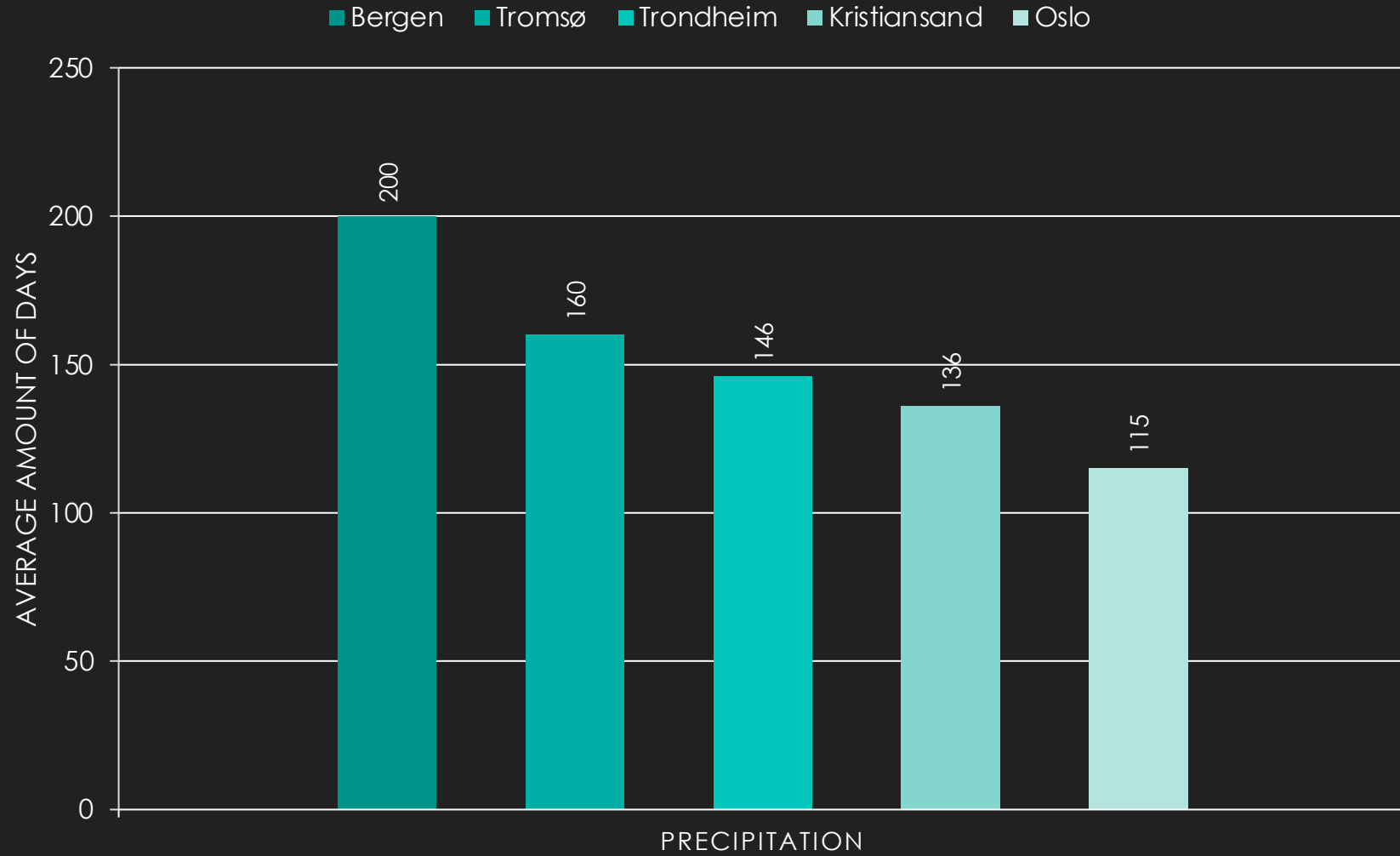
136 Kristiansand

115 Oslo

DAYS OF PRECIPITATION PER YEAR

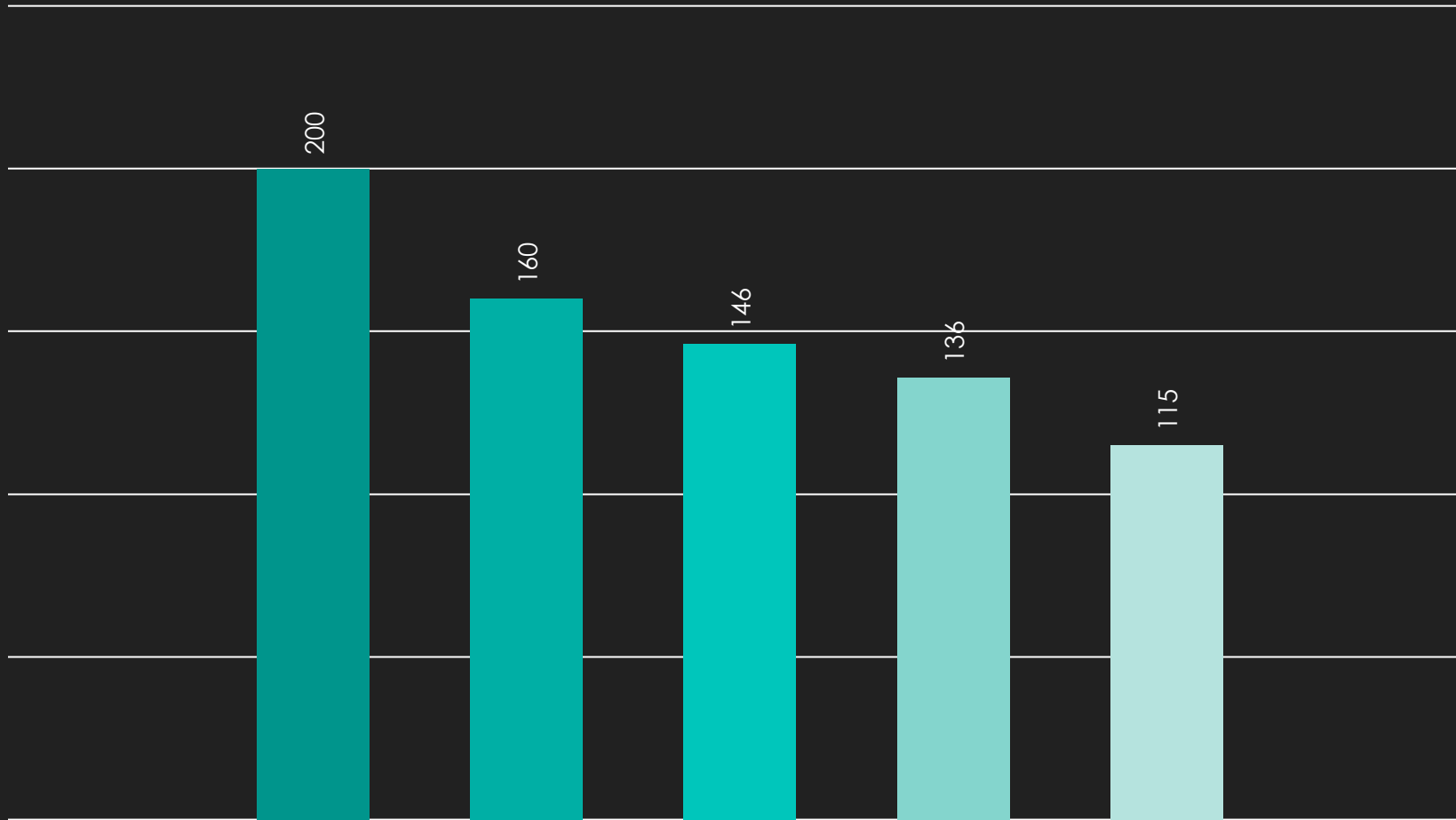


DAYS OF PRECIPITATION PER YEAR

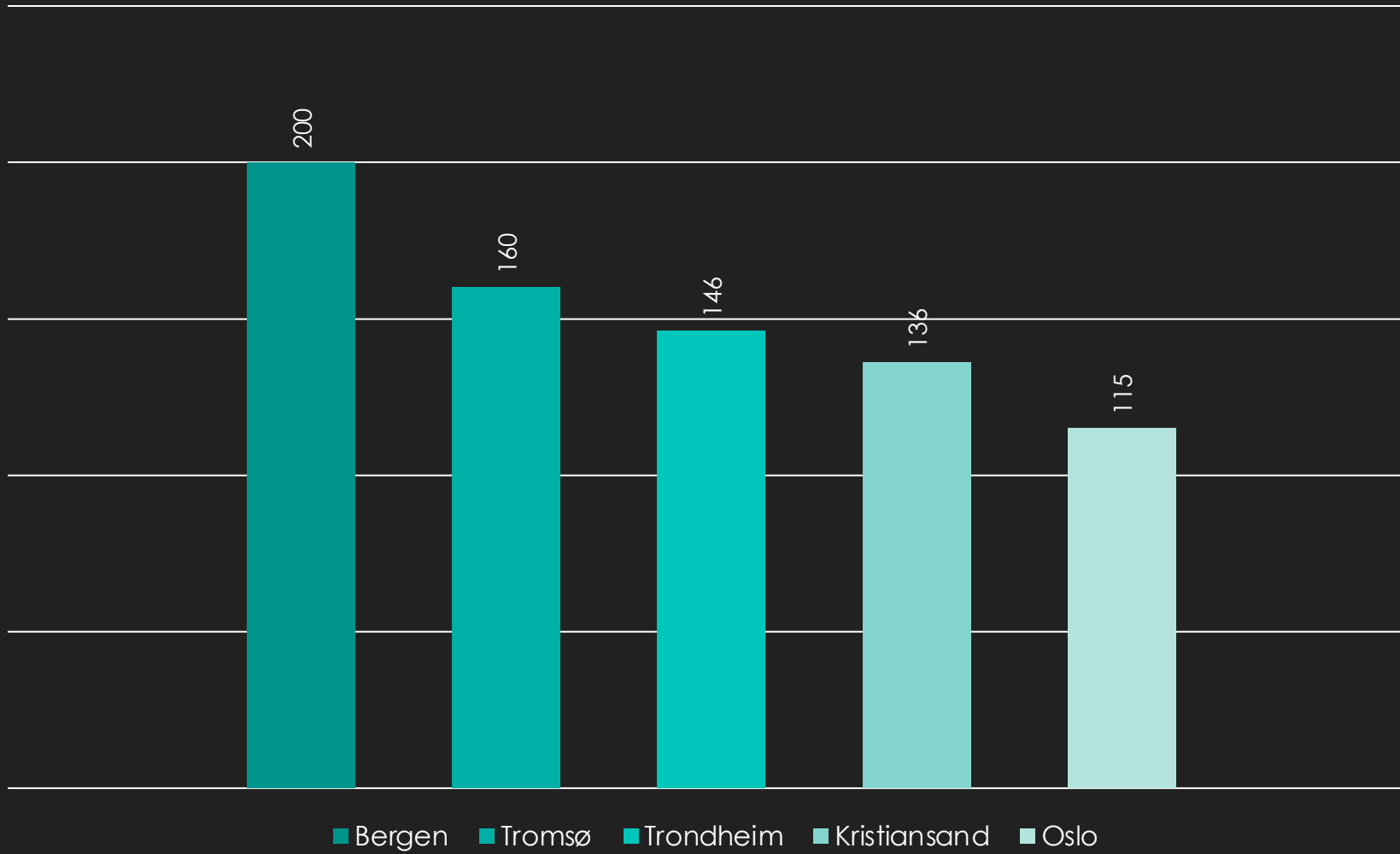


DAYS OF PRECIPITATION PER YEAR

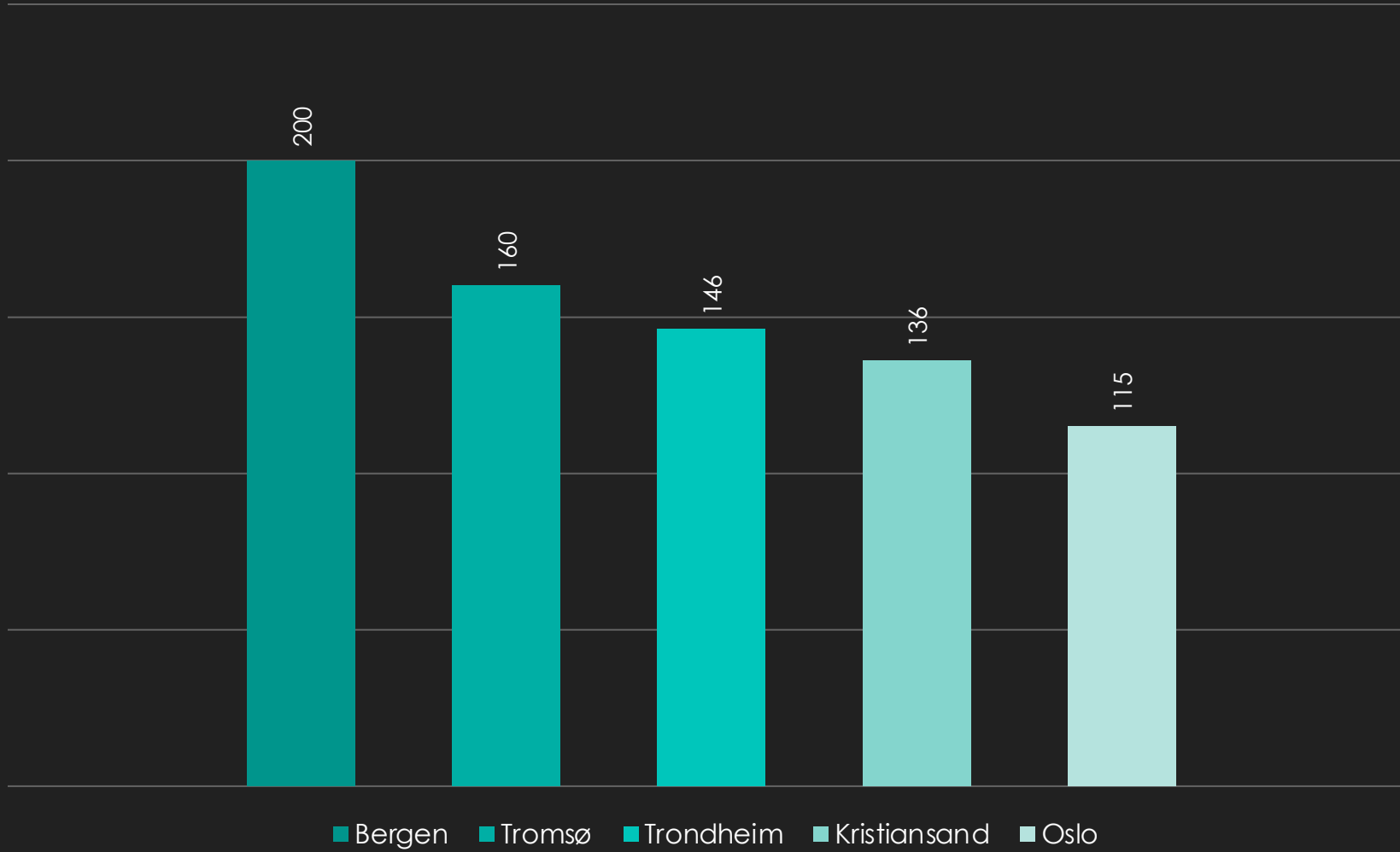
■ Bergen ■ Tromsø ■ Trondheim ■ Kristiansand ■ Oslo



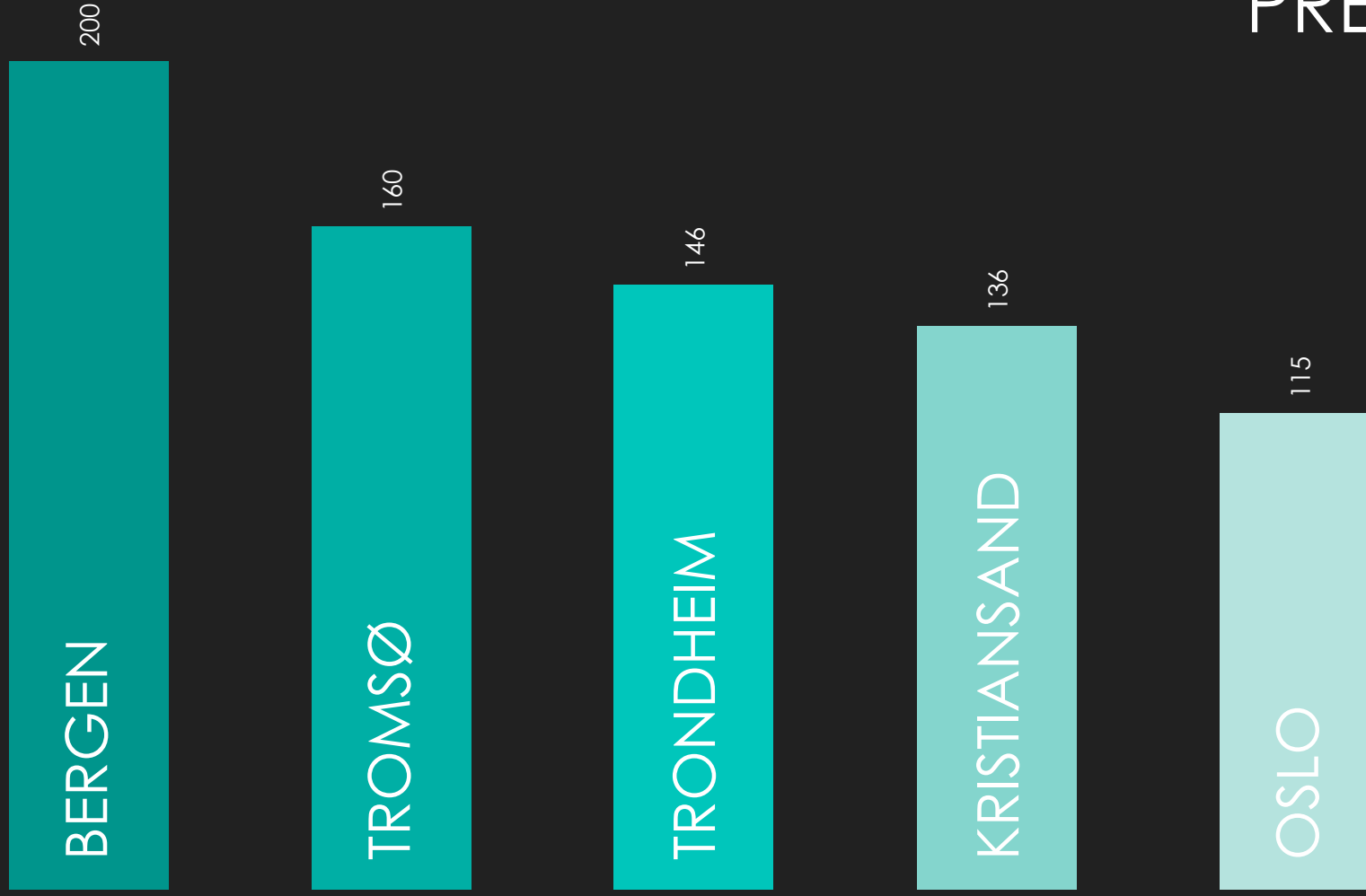
DAYS OF PRECIPITATION PER YEAR



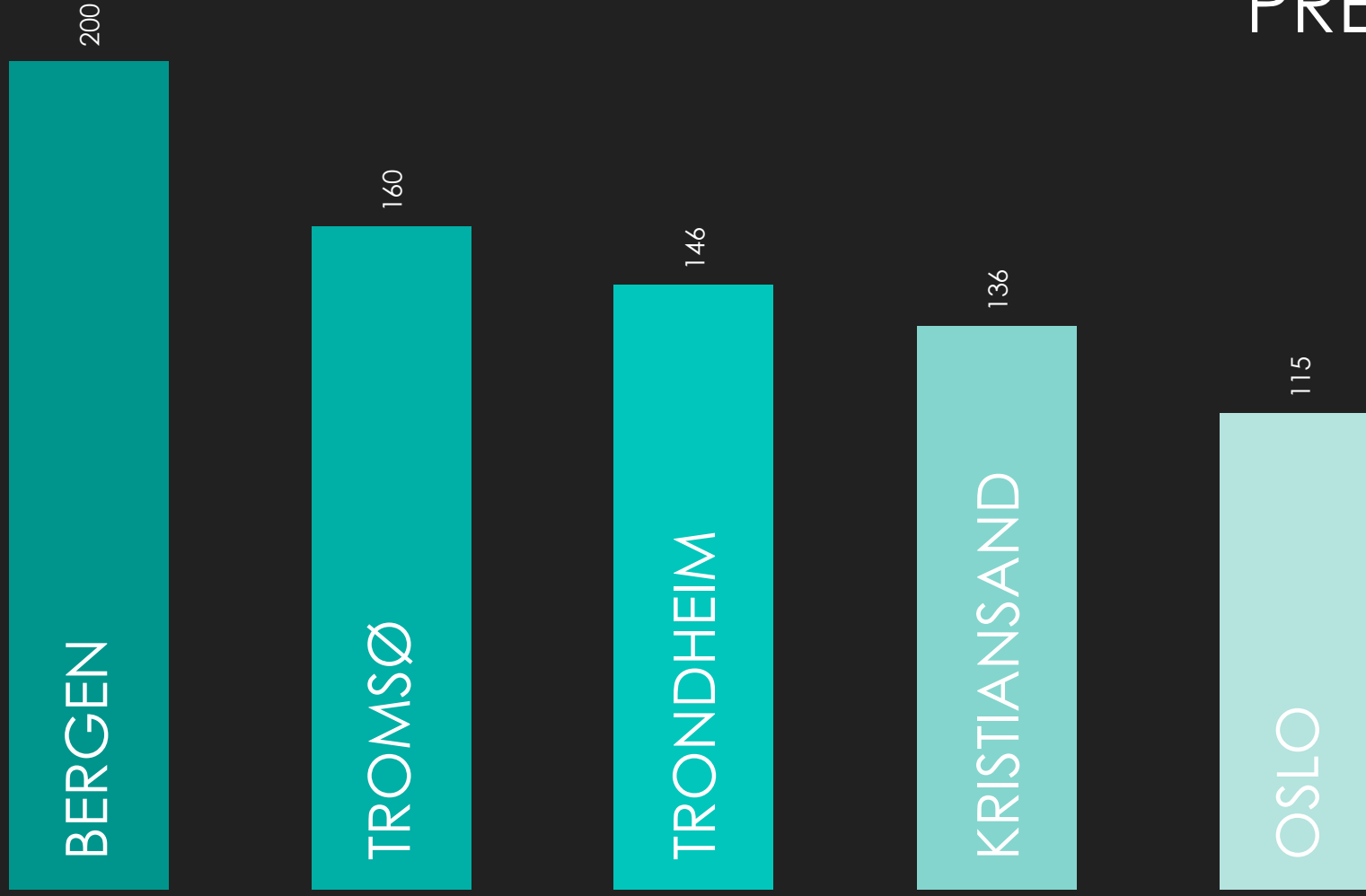
PRECIPITATION

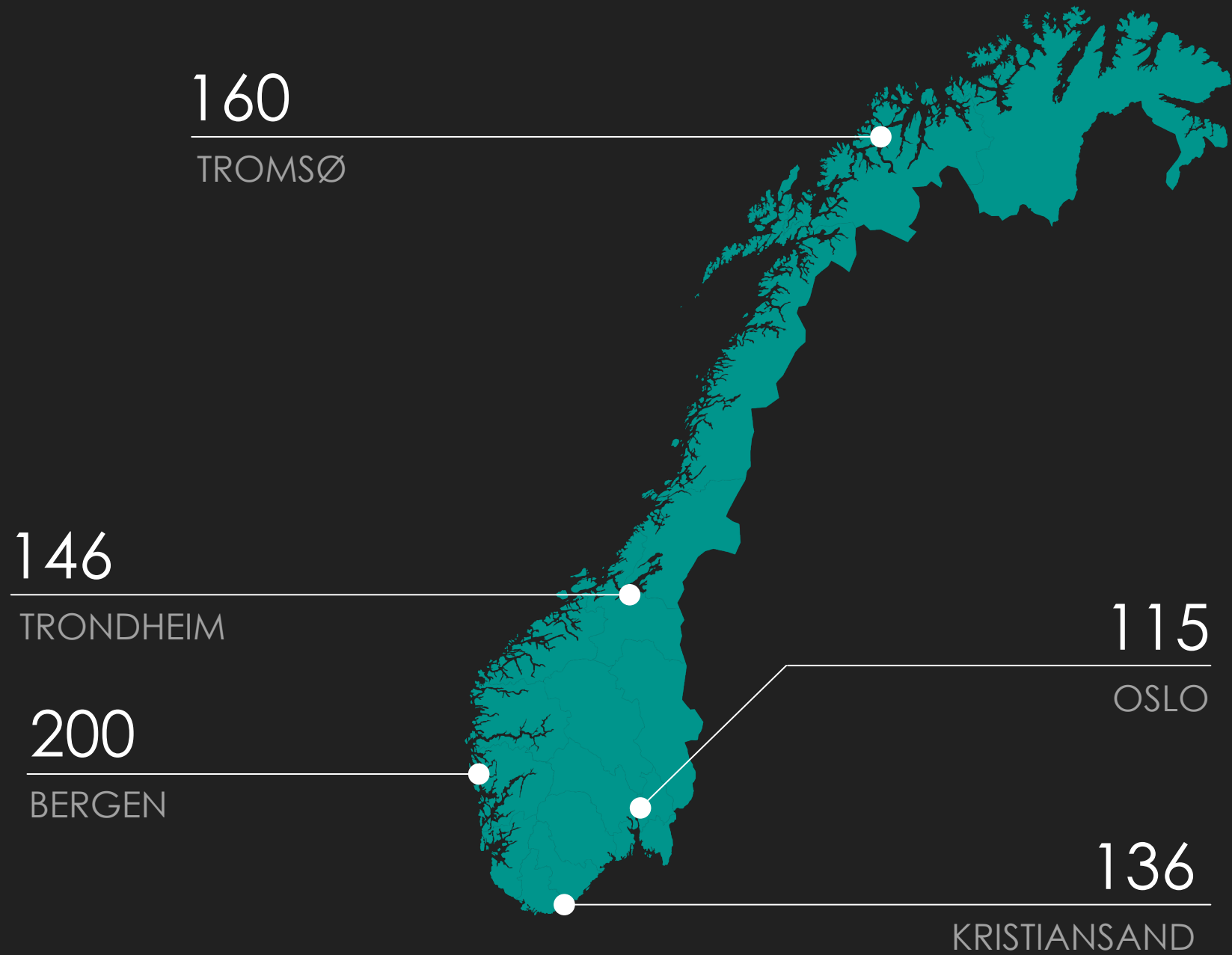


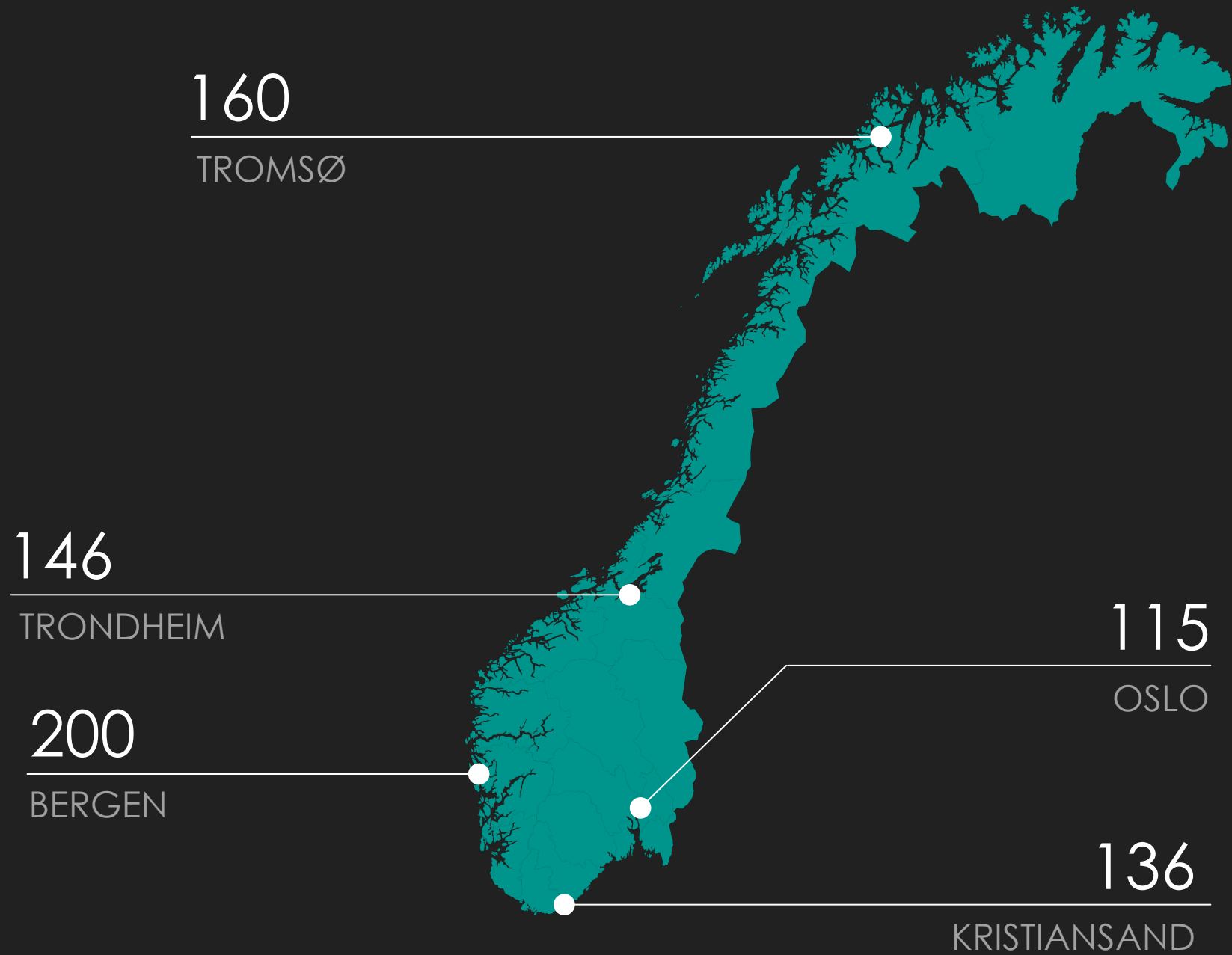
PRECIPITATION



PRECIPITATION





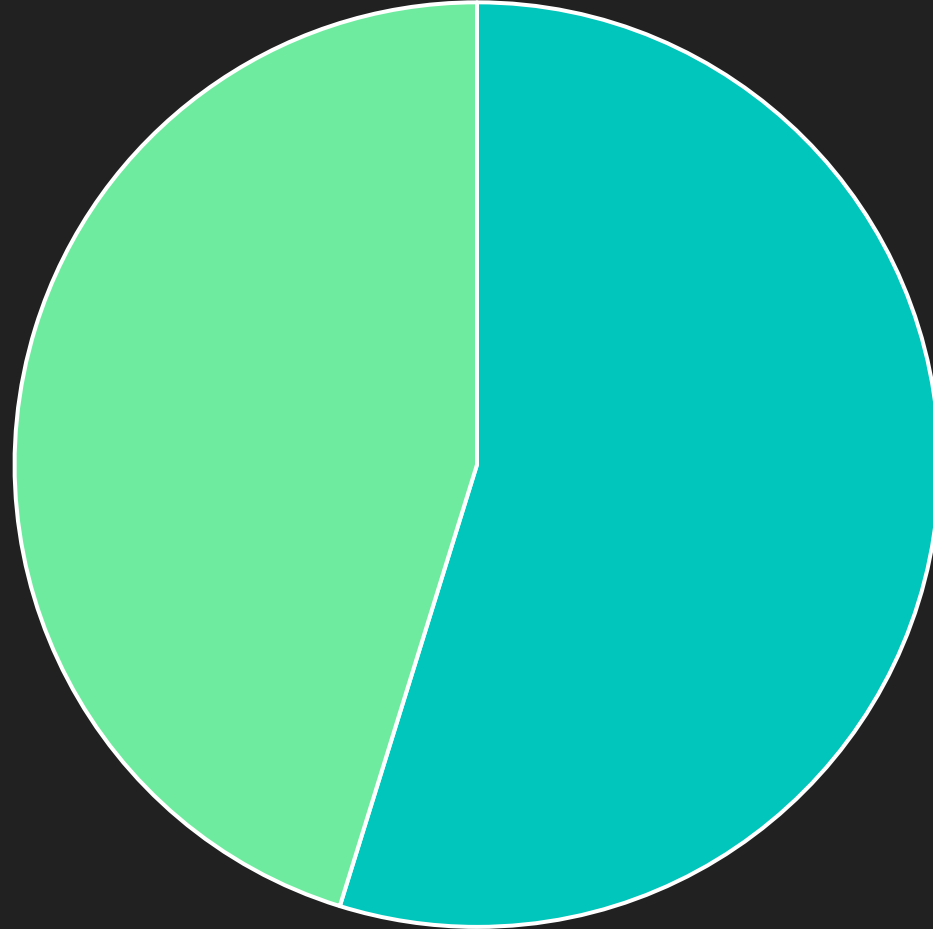


PIE CHART

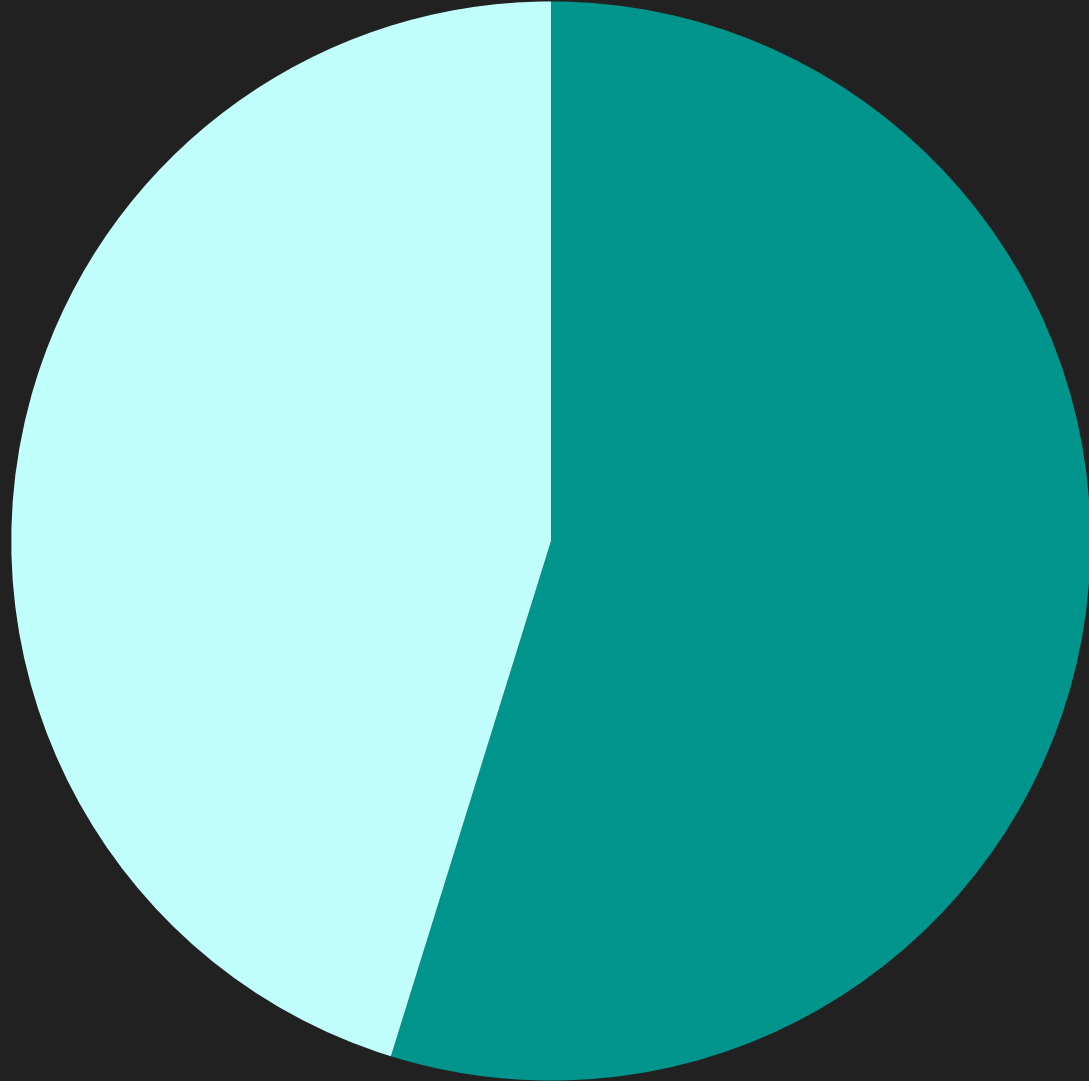
PRECIPITATION

200 Bergen

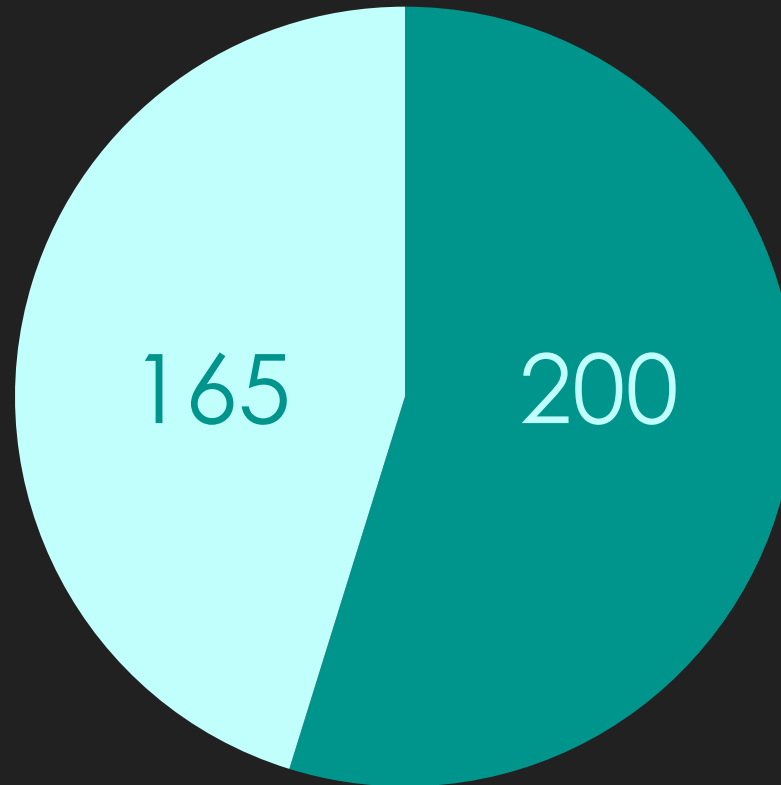
BERGEN



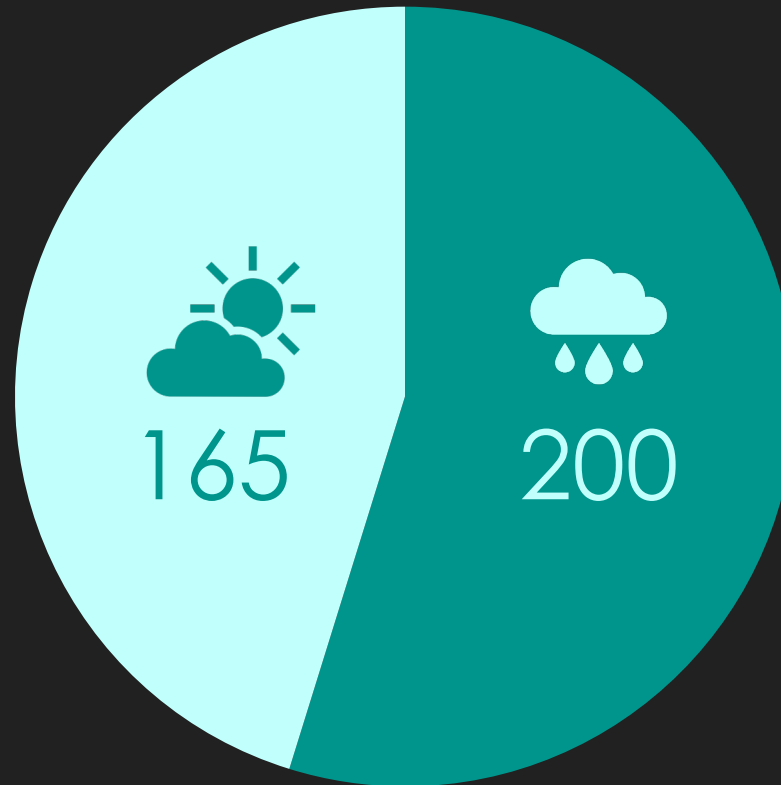
■ PRECIPITATION ■ NONE



BERGEN



BERGEN



LINE GRAPH

VISUELL FORMIDLING

2020	160
2021	350
2022	1050

VISUELL FORMIDLING

160

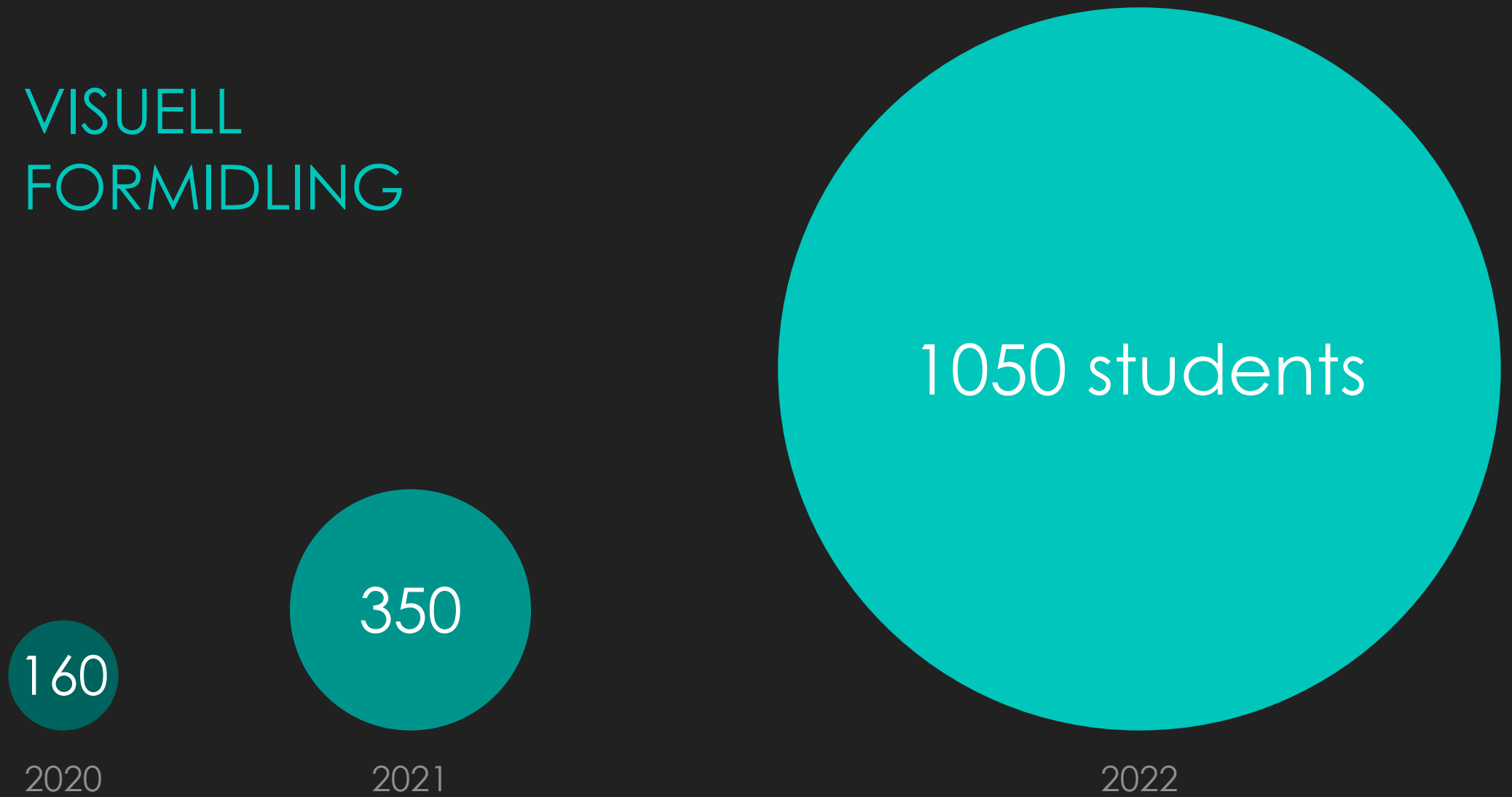
2020

350

2021

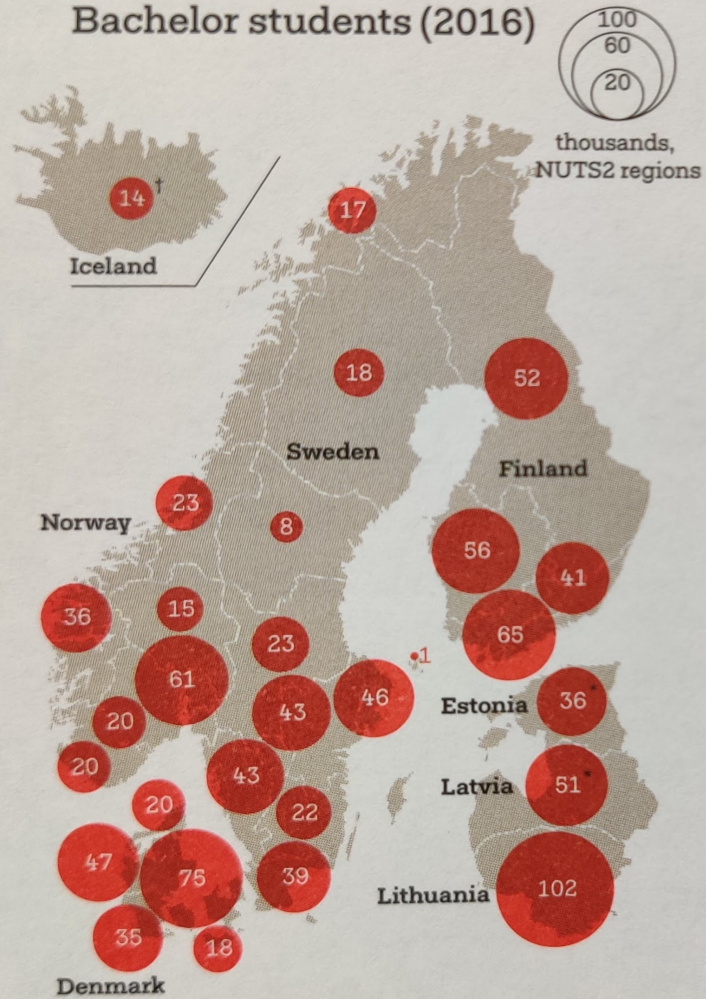
1050 students

2022



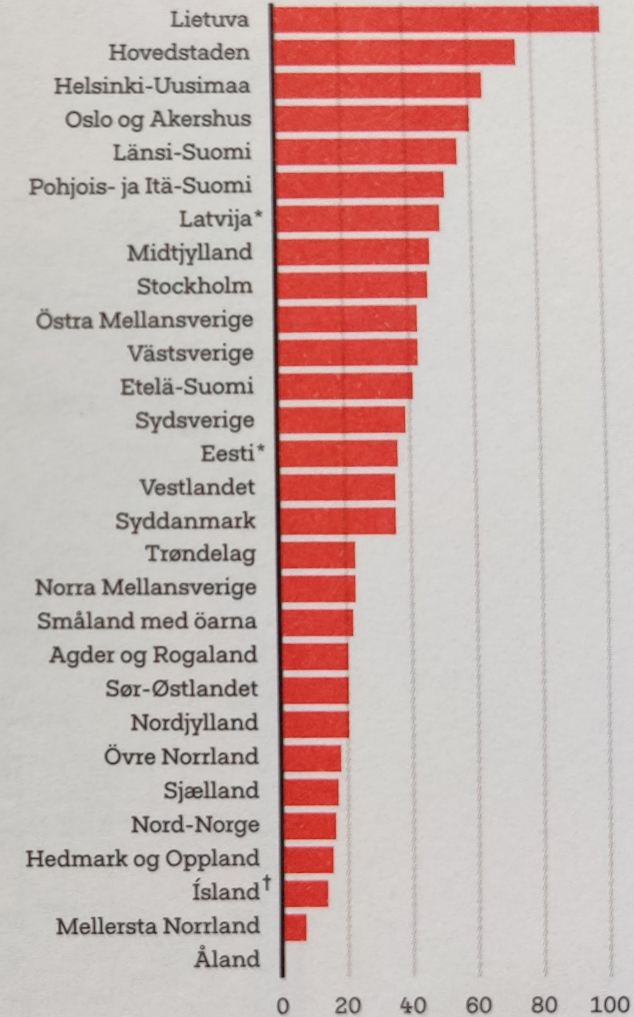
DORLING CARTOGRAM

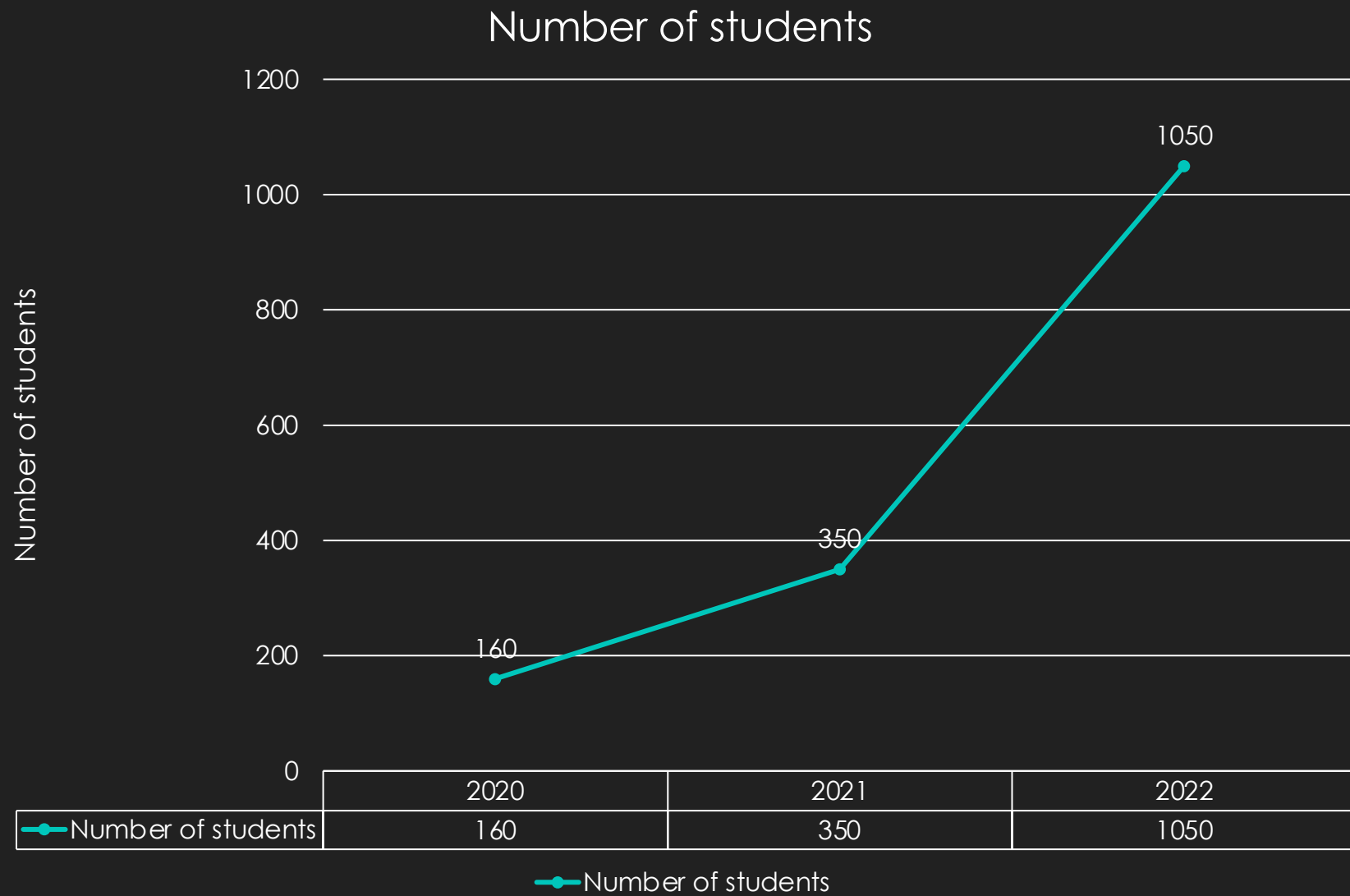
Bachelor students (2016)



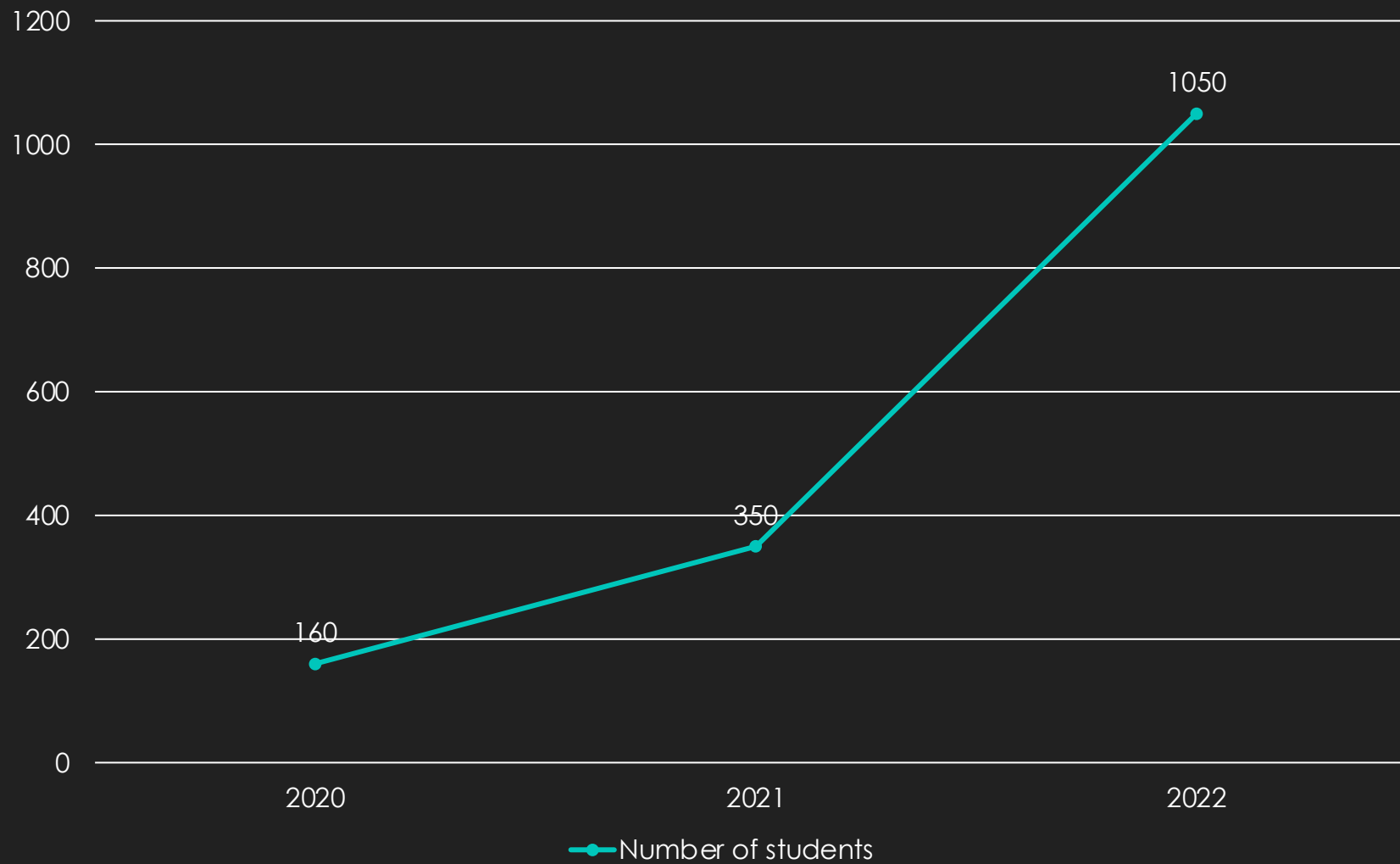
Bachelor students (2016)

thousands, NUTS2 regions

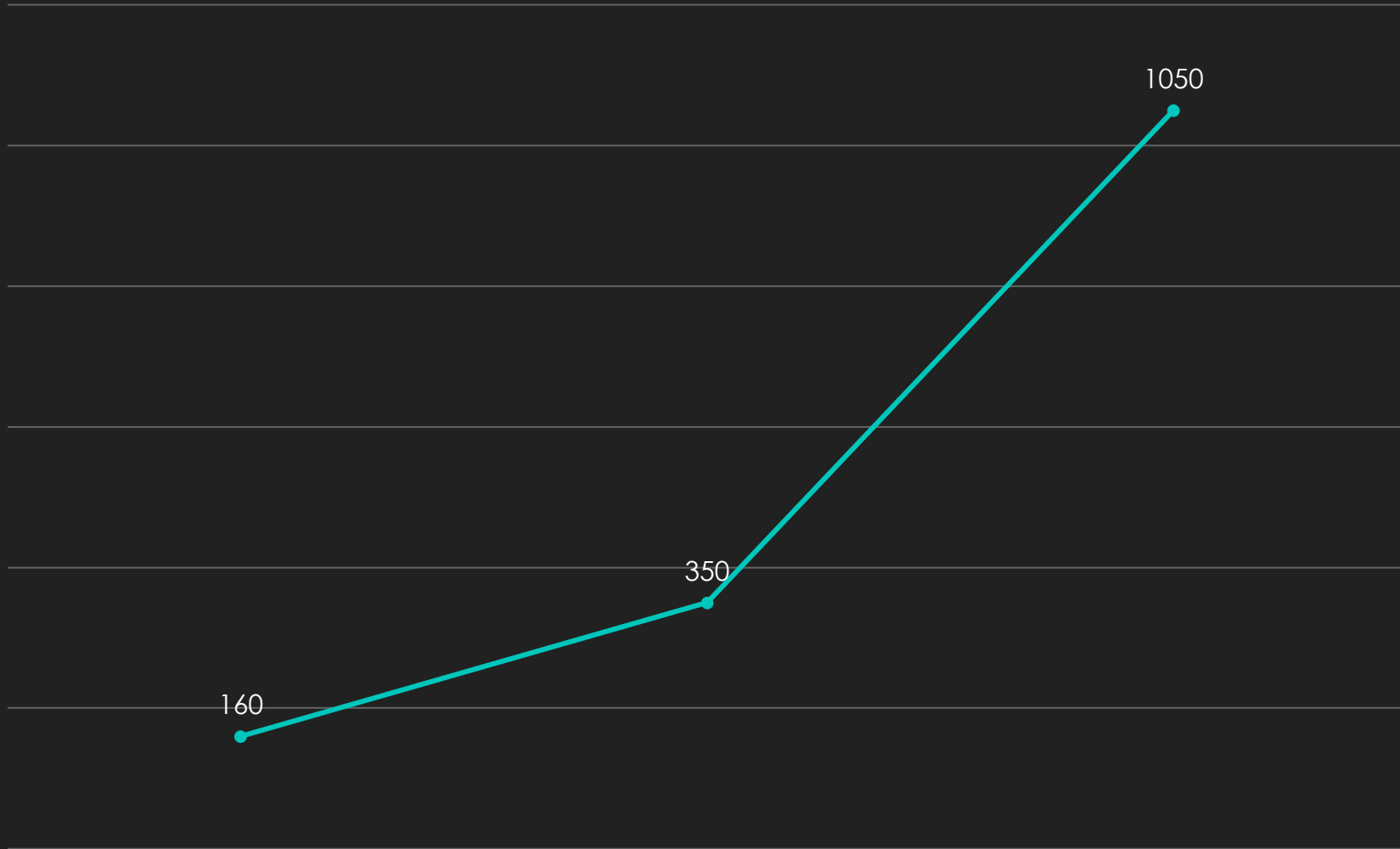


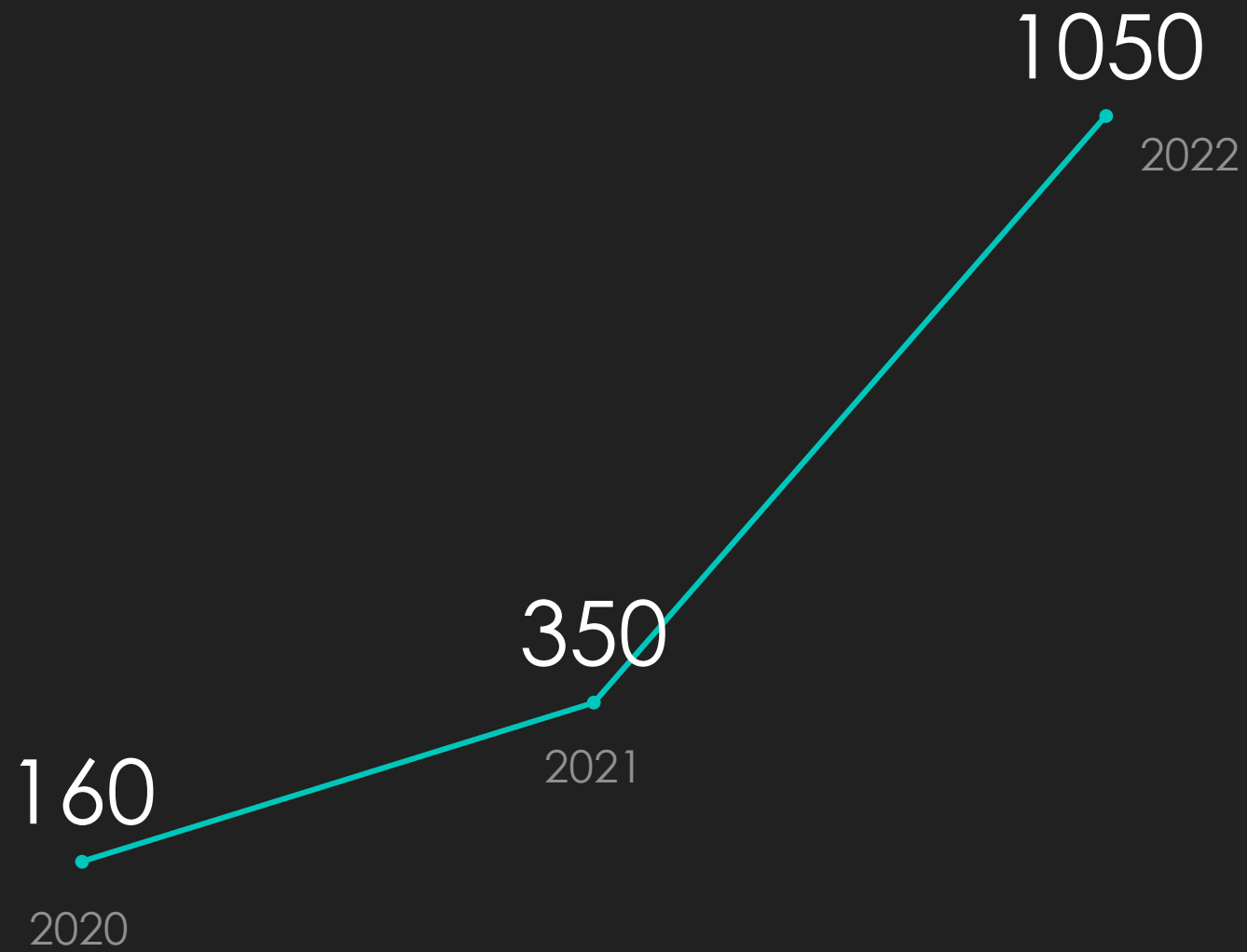


VISUELL FORMIDLING



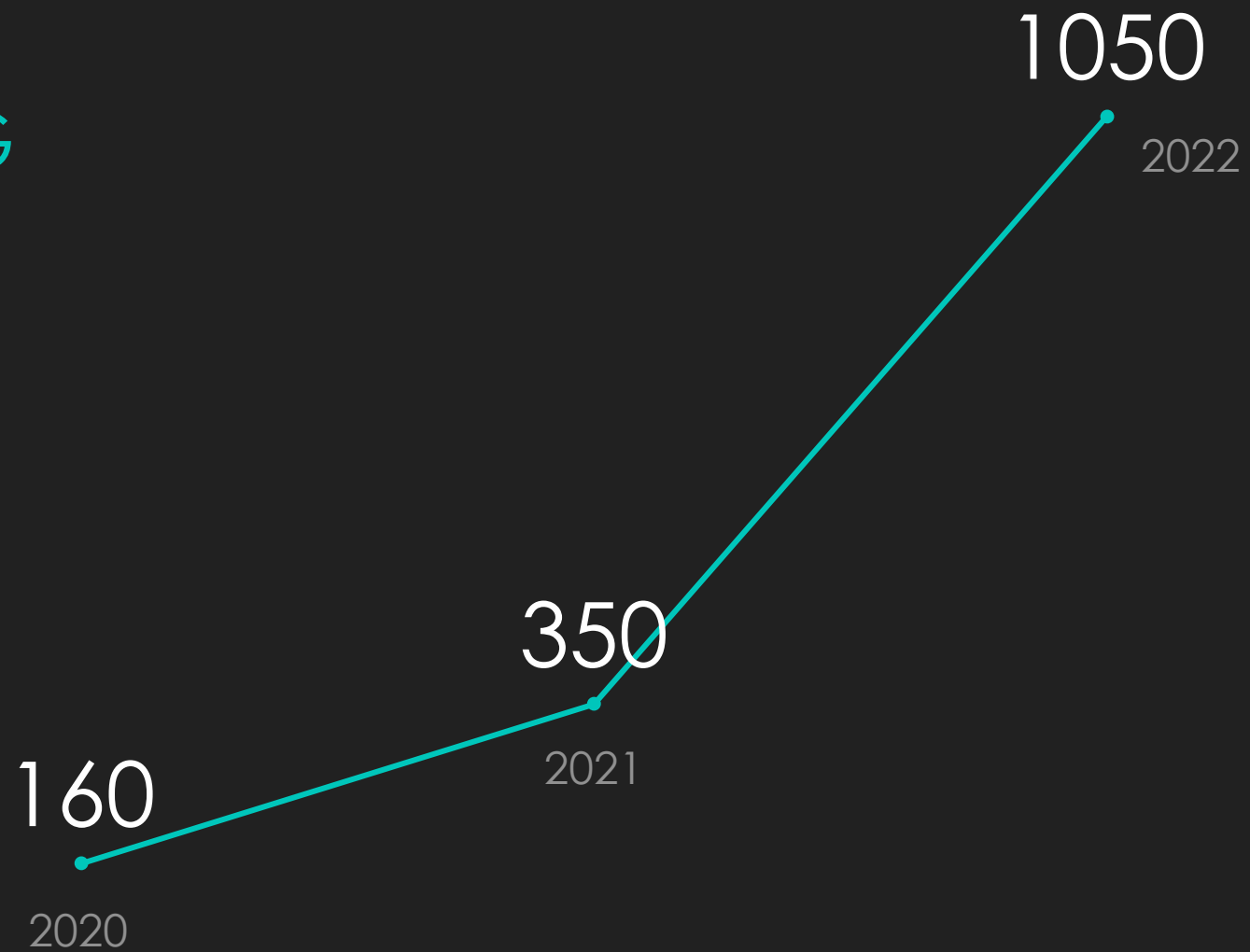
VISUELL FORMIDLING





VISUELL
FORMIDLING

VISUELL FORMIDLING



The toaster challenge

https://www.ted.com/talks/tom_wujec_got_a_wicked_problem_first_tell_me_how_you_make_toast?language=en#t-528268

WIND

«RUNNING»
THE WIND COMES
DIRECTLY FROM BEHIND
OF THE BOAT, PASSING
ITS STERN

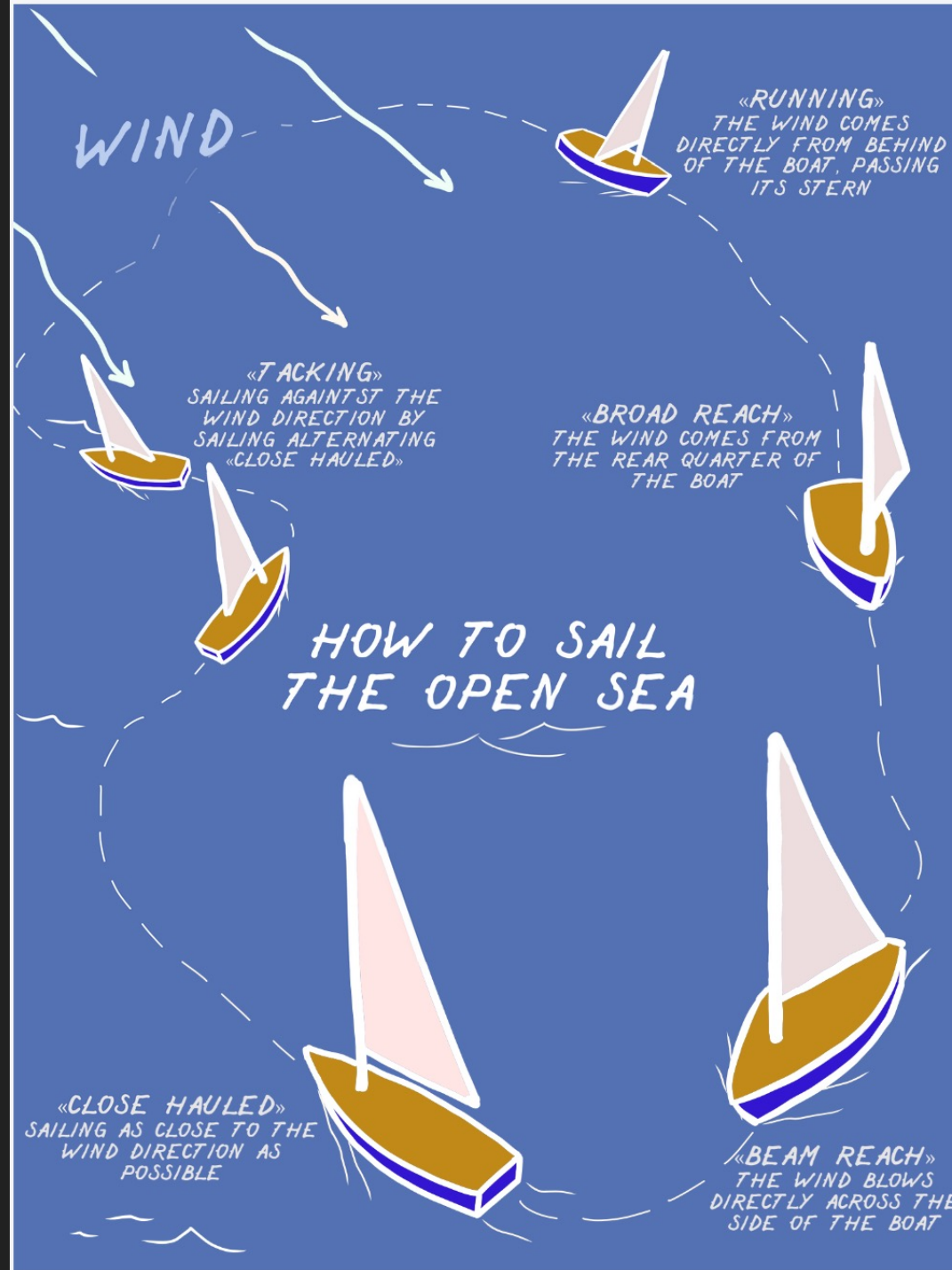
«TACKING»
SAILING AGAINST THE
WIND DIRECTION BY
SAILING ALTERNATING
«CLOSE HAULED»

«BROAD REACH»
THE WIND COMES FROM
THE REAR QUARTER OF
THE BOAT

HOW TO SAIL THE OPEN SEA

«CLOSE HAULED»
SAILING AS CLOSE TO THE
WIND DIRECTION AS
POSSIBLE

«BEAM REACH»
THE WIND BLOWS
DIRECTLY ACROSS THE
SIDE OF THE BOAT



How to dress for nanolab



How to dress for nanolab



How to **WHITewater** kayak

PADdle

To move controlled in the river, your paddle is your best friend. Use it to push the **water** in opposite direction of where you want to go. Turn, roll, sweep, support. That's the way to live.

EDGE

When you travel in and out of **eddies**, you need to edge the boat towards the stream. This is essential if you don't want to swim.

SMILE

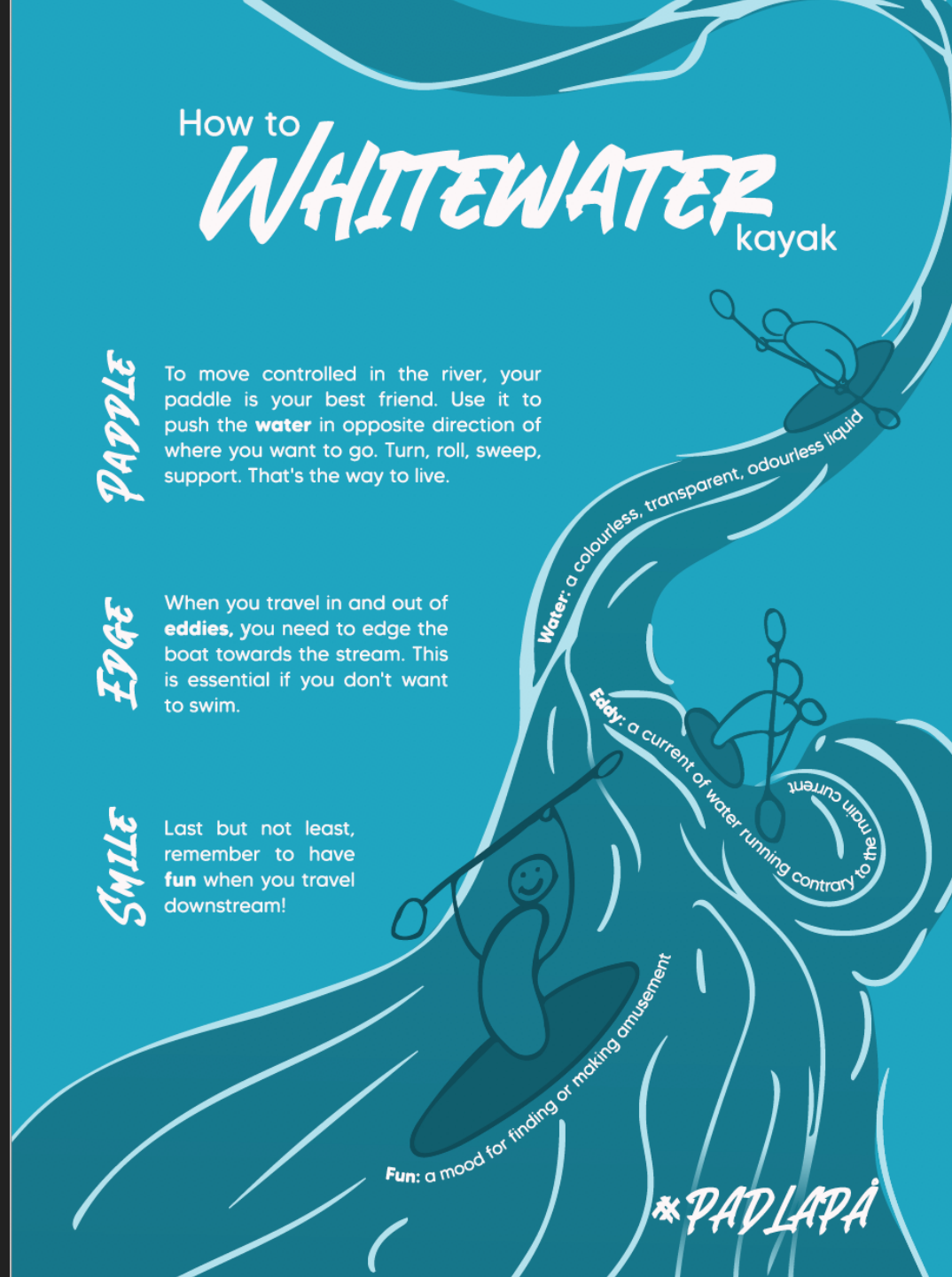
Last but not least, remember to have **fun** when you travel downstream!

Water: a colourless, transparent, odourless liquid

Eddy: a current of water running contrary to the main current

Fun: a mood for finding or making amusement

*PADLAPA





CREDITS

Precipitation data from YR – www.yr.no

Icons provided by PowerPoint

Charts created in PowerPoint

Norway SVG map - <https://mapsvg.com/maps/norway>

Norway PPTX map – www.geonorge.no

Map images taken from www.kartverket.no and www.norgeskart.no