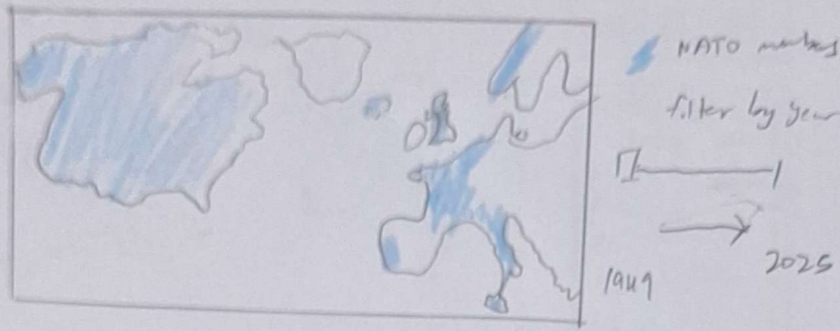


1) IDEAS

① MAP of NATO (North America + Europe) to show growth

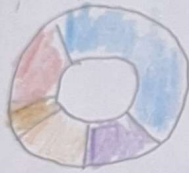


② Commitment

i) same map as above but now using % GDP spending on military

Spent in USD by member

ii)



Legend

USA

UK

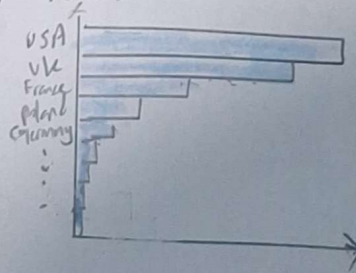
France

Poland

Germany

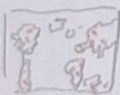
iii) members

Top 10 NATO military personnel



③ Power Comparisons

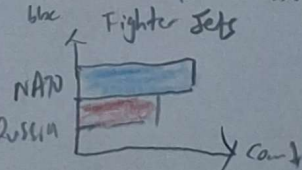
i)



NATO bases

Shows NATO bases around the world to show power projection

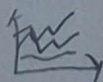
ii) Small multiples of military numbers of last year and this year



iii) polygons

888 to show the amount of equipment for each bloc

iv) military expenditures



4) Combine 2 views

① Map → Equal Earth

color → blue → NATO gray → non NATO
annulments to avoid change blindness

highlights founding members + affected countries
for annotation

rank countries

to see who meet

the 2% NATO requirement

Title: Brainstorm

Author: Hong Kiat Giam

Date: 19/10/25

Sheet: 1

Task: Generate ideas for topic design

2) Filter



Not suitable as NATO has 32 members and donut chart is recommended to have at most 8

3) Categories

① Title (Header)

↓

② Info on NATO

↓

③ Growth + commitment

↓

④ Comparison with NATO's main rival

5) Questions

i) Does it deliver an idea on NATO's scale, commitment and power relative to its biggest threat Russia

ii) Does the interactive flow introduce change blind

iii) Can users understand the purpose, growth, member contributions and how no compare??

Layout

NATO GROWTH (1949-2024)



Year: 1949

ANNOTATIONS

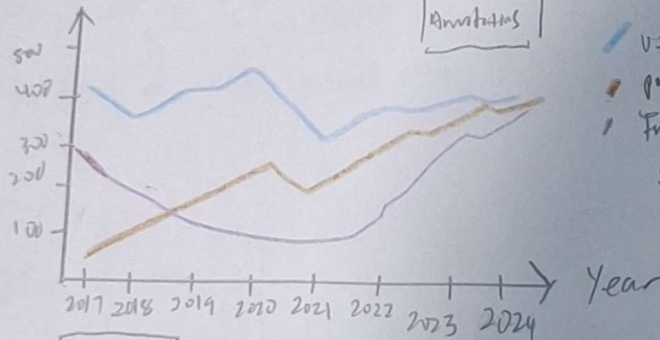
member list
1. country year
2.
3.
4.
5.
6.
7.

scrollable

Show markers

Military Growth (2017-2024)

GDP IN USD (100 mil)

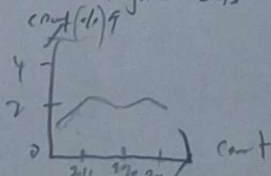
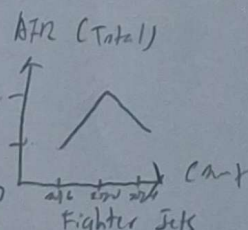
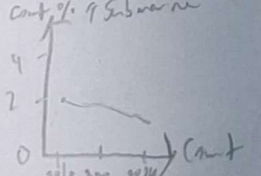
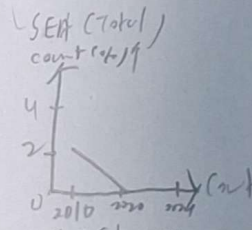
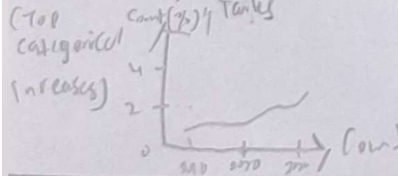
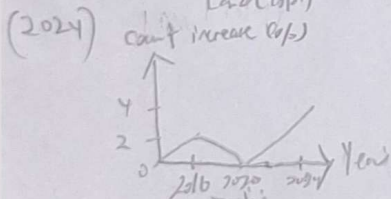


Annotations

USA
Poland
France
...

Summary

Country



Focus

① Chronological Alliance Expansion

→ allows users to actively explore when and where NATO expanded geographically over its history. The focus is on the temporal evolution of alliance's membership shown directly on the map

⇒ choropleth map (Zoomed in to focus on North America and Europe) where countries change colour from gray to blue on the year they joined which provides a visual representation of growth across space and time

Title: NATO Growth

Author: Hong Keet Gan

Date: 19/10/25

Sheet: 2

Task: Show NATO Growth from 1949 → 2025

operations

1949 → 2024

Year slider

Play

Starts map animations

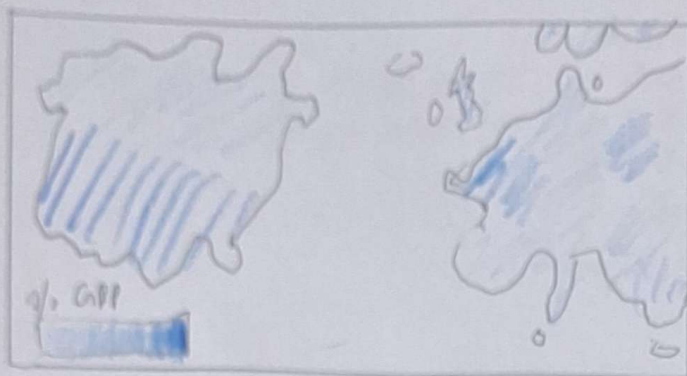
Highlights markers

Hovering over member list highlights the country on the map

Discussion

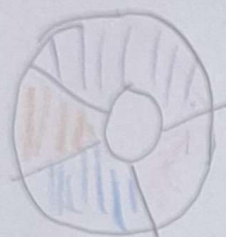
- ⊕ Highly interactive
 - clearly shows geographic sequence of expansion
 - milestones (annotations) provides context for accessions
 - member-list gives a detailed textual view along side map so that viewer know where the country hovered over is
- ⊖ may introduce change blindness

NATO COMMITMENT DASHBOARD



EVENTS	
Ranking	
1	---
2	---
3	---
4	---
5	---
6	---

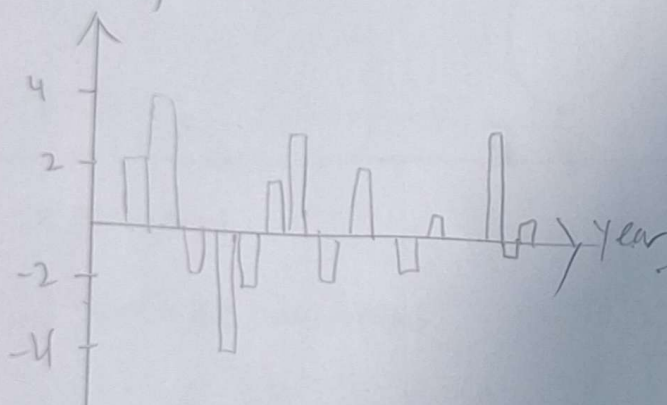
20/0



GDP (%) spent on

- Air
- navy
- Land
- Logistics

GDP (%) on military annual change



country

Title: NATO Commitment Dashboard

Author: Hong Viet Gan

Date: 20/10/25

Sheet: 3

Task: Show how each NATO member contributes to NATO

Operations

1949 2024

Year Slider

Country Selector Country

Ranked Selection

→ Shows top contributors

→ shows who meets the 2% requirement

Hover Effects

When hovering the ranking members by highlighting them on the map

Discussion

① - Allowed detailed comparison of member contributions on key metrics

- spending map visually highlights the 2% requirement

② Introduces change blindness when sliding the year

Focus

① Member Contribution Explorer

- Allows users to compare individual member contributions across key metrics (spending, personnel) and see how these contributions vary year-by-year

- Interactive choropleth map that uses a normalised q/o GDP of each NATO member from 2014-2024 using a sequential color scale and an Annotated Horizontal Bar chart for total military personnel of the Top 10 NATO members and the rest will be classified under others.

Layout

NATO FIREPOWER

Arm Columns

000000

000000

000000

000

Tank

00000000

00000000

Infantry

✓✓✓✓✓✓

✓✓✓✓✓✓

✓✓✓✓✓✓

✓✓✓✓✓✓

✓✓✓

Artillery

0000000

0000000

0000000

NATO Global Reach



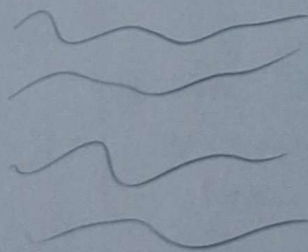
• NATO Bases

NUCLEAR WEAPONS



USA
UK
France

Total: 5044 weapons



Focus

① NATO military capability

- provides a direct quantitative overview of NATO's aggregate military strength on key domains
- dot map showing NATO's global reach

Title: NATO Power Projection

Author: Hong Huet Fan

Date: 20/10/25

Sheet: 4

Task: Show NATO FIREPOWER & strength & Nuclear deterrence

Operations

- ① Tooltips can show which NATO member owns the base and will highlight the country when hovering over the dot.

Discussion

- ① - shows NATO's global reach and power
- shows who contributed to the power

- ② Risk of oversimplification like it doesn't capture qualitative factors like training, tech level doctrine or logistics in detail

Layout

NATO: Growth, Commitment & Global Context

What is NATO?



Altmap Growth

Filter by year



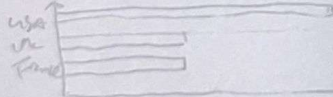
North America + Europe map

member Commitment (Spending % GDP)

Year 0 Filter by year



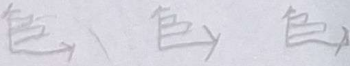
Countries: 1 (Russia)



Number of Personnel (thousands)

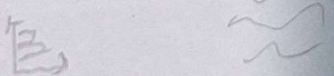
For NATO VS RUSSIA

Land Air Navy



Small multiples of the breakdown of each category

nuclear weapons



Focus

① NATO's Establishment

→ Focus on NATO's mission

→ How they grow throughout its founding

→ Zoomed in choropleth map for increased focus on NATO countries

② Commitment

→ Altmap uses t, compare individual member contributions to NATO and whether they meet the 2% requirement

③ NATO's Irreparable

& compares NATO's firepower with its main rival Russia

→ Gives viewers

an idea on whether NATO can successfully counter Russian aggression.

Title: NATO: Growth, Commitment & Global Context

Author: Hong Keat Gan

Date: 20/10/25

Sheet: 5

Task: Creating a realization design

Operations

[Altmap] starts map animation (Growth)

→ 1949 2024 Year slider

[Founders] highlights founders in map

Hovering over member list highlights the country on the map as well as providing position when hovering the country map

Details

Reporides: vegalite

Estimated time & effort 5 days to build all idiom for final design layout

→ 1 day research

→ 1 day annotations

→ 2 days coding vegalite, html, CSS

→ 1 day debugging