

# Eine **kurze** Geschichte der Digitalisierung

Die letzten 1000 Jahre und was das für uns **heute** bedeutet

# **Making of a Digital World (2008)**

**Empirische  
Untersuchung der  
Entwicklung hin zu  
einer digitalen Welt**

EVOLUTIONARY PROCESSES IN WORLD POLITICS

## THE MAKING OF A DIGITAL WORLD

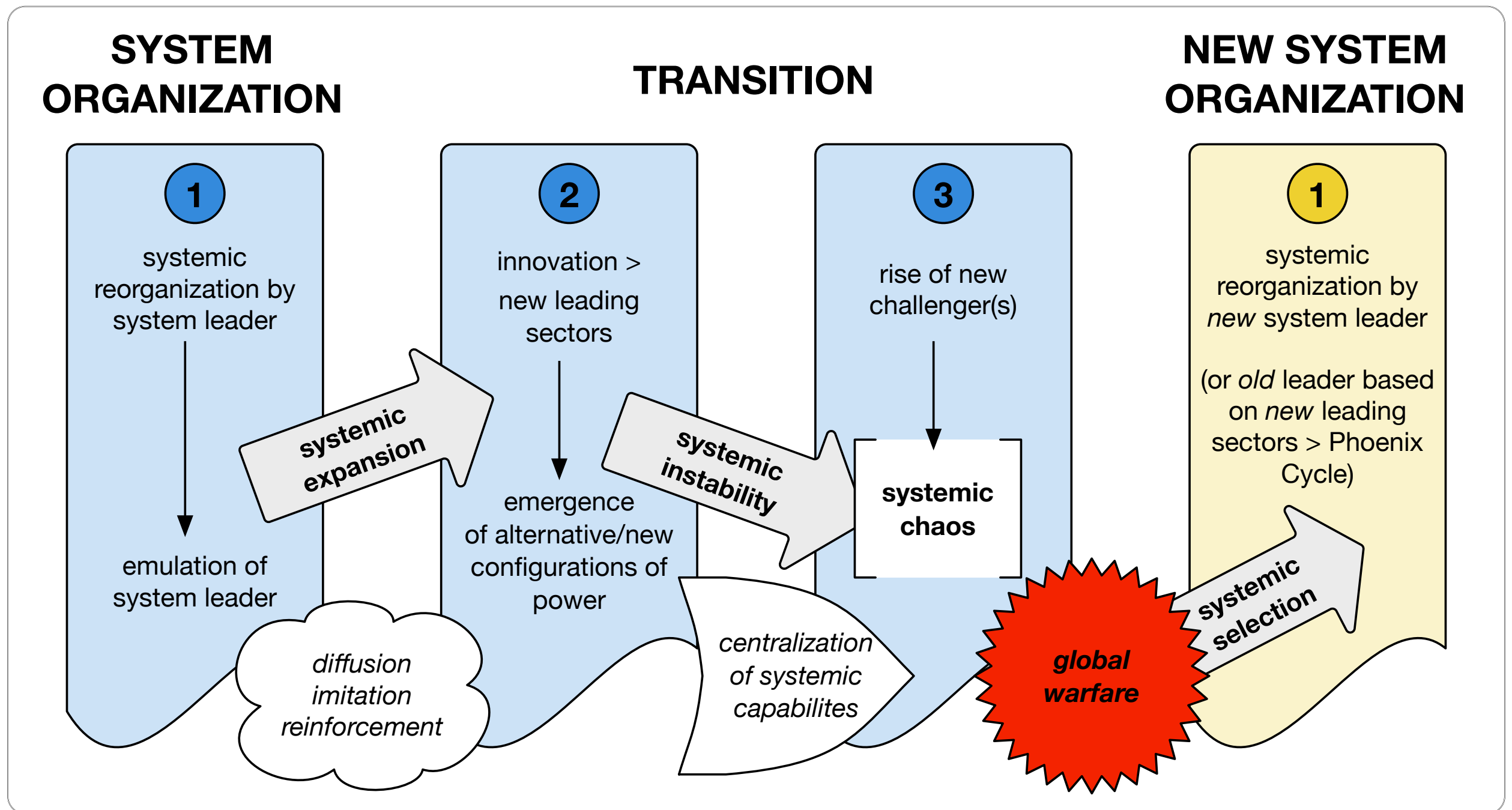
The Evolution of  
Technological Changes and  
How It Shaped Our World

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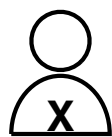
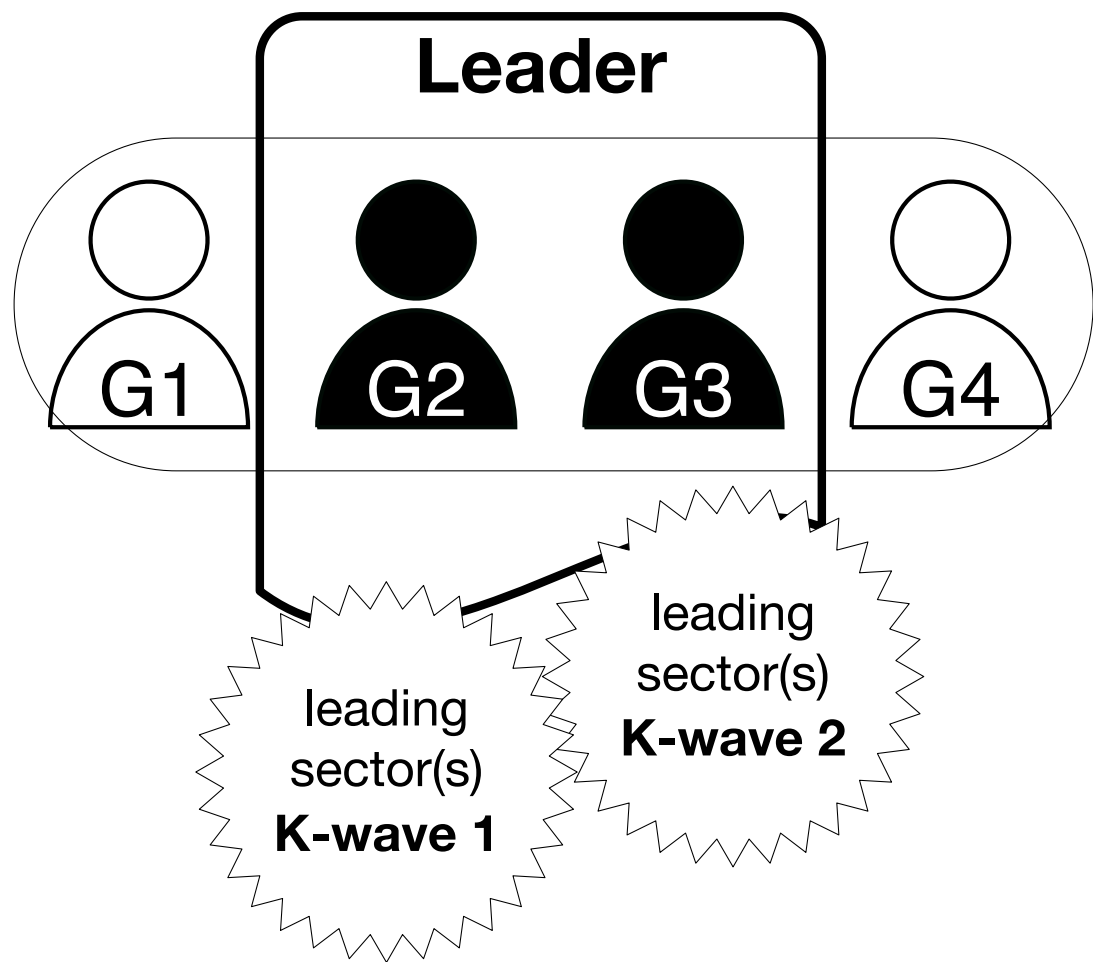
JOACHIM RENNSTICH



# Hegemonic Transition Cycle



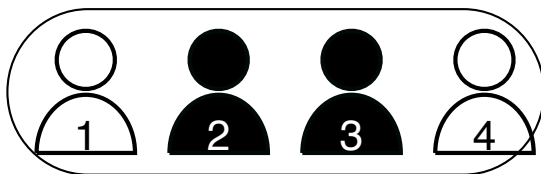
# Buddenbrook Cycle



**Pre/Post K-wave Generation**  
Founder and tail generation  
25-30 yrs



**K-wave Generation**  
Leading sector generation  
25-30 yrs



**Generational Buddenbrook cycle**  
Four consecutive generations  
100-120 yrs



**K-waves**  
leading-sector based  
25-30 yrs



**Long cycles**  
of systemic leadership  
100-120 yrs



# Song-China (Nord)

930 - 1060

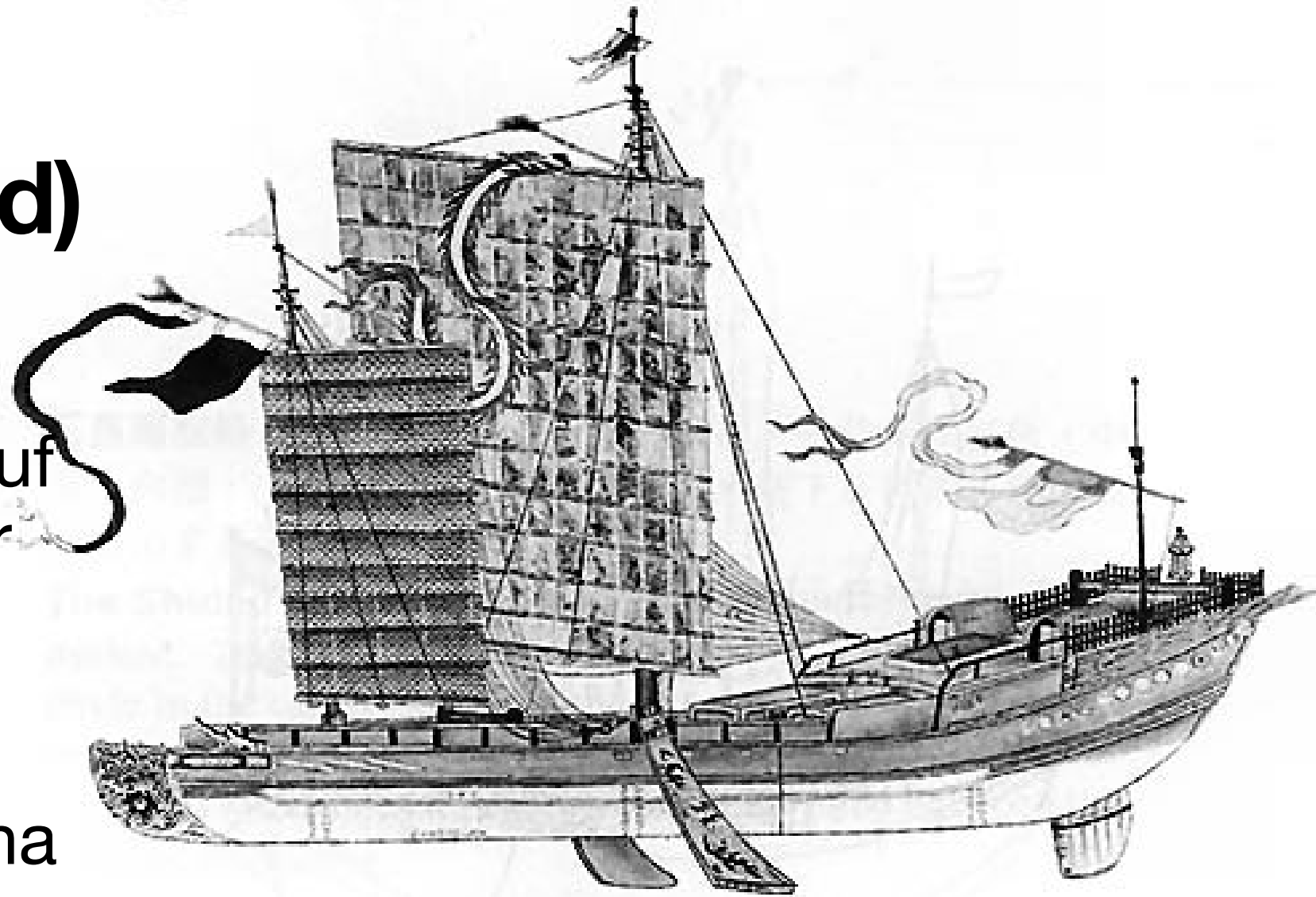
- markiert Beginn der **modernen Globalisierung** und des **Nukleus des kapitalistischen Systems** von heute
- Entwicklung von **Druck Technologien/Papier Industrie**
- später Entwicklung eines **nationalen gemeinsamen Marktes**



# Song-China (Süd)

1060 - 1190

- Weiterentwicklung auf Basis grundlegender **administrativer Reformen**
- Entstehung von China als **maritimer Weltmacht**



<https://upload.wikimedia.org/wikipedia/commons/6/6b/SongJunk.jpg>

## MEDIEVAL TRADE ROUTES AND TRADE FAIRS

- Trade routes
- Towns holding fairs
- Hanseatic towns
- Hanseatic trading posts
- Principal commercial centers



## Genua 1190 - 1300

- Etablierung der **Champagne Märkte** und des **Schwarzmeer** und **Atlantik-Handels**



# Venedig 1300 - 1420

- Neue maritime Technologien und Gewürzhandel

## Late Medieval Trading Routes

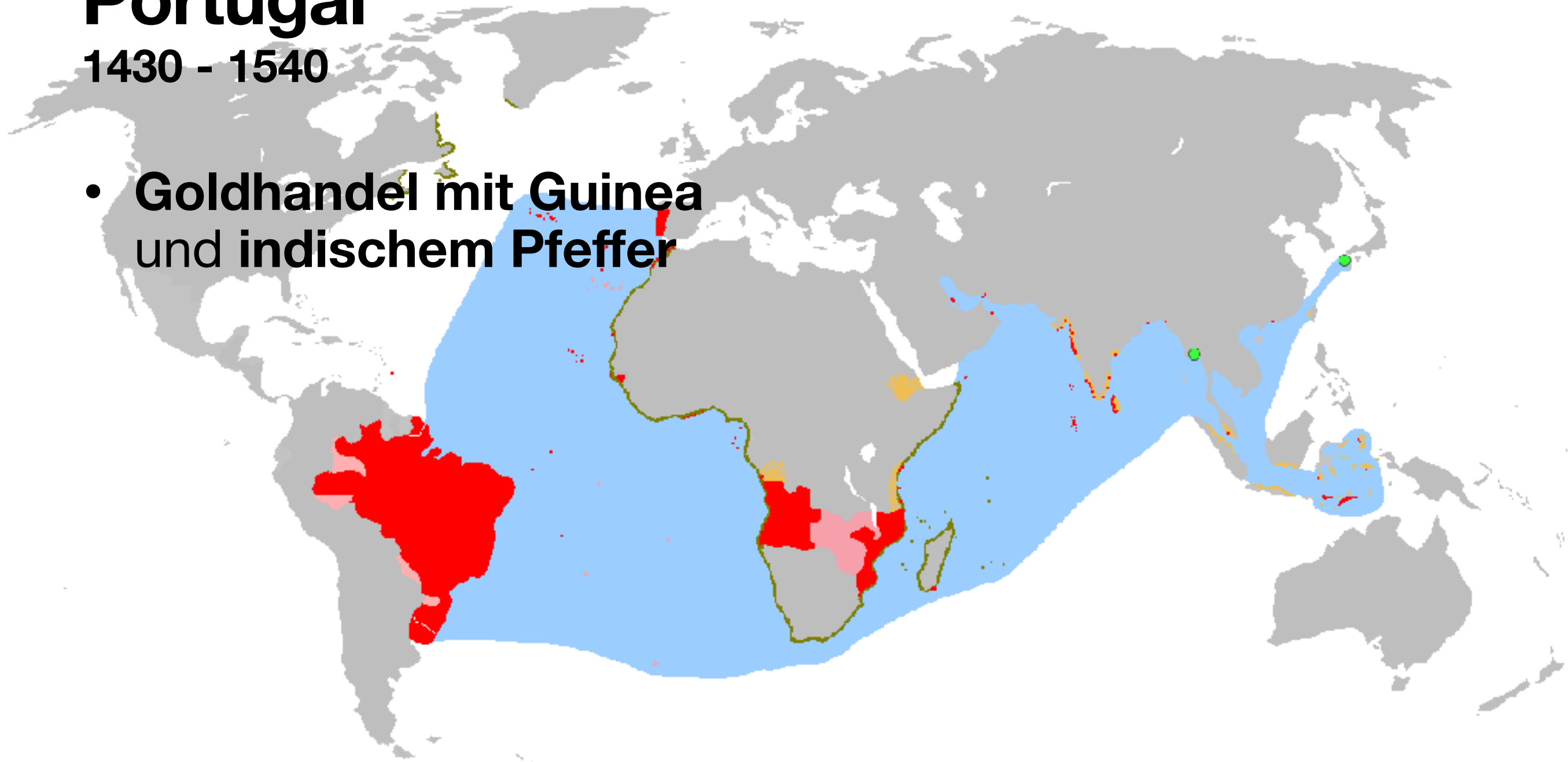
- Hanseatic Routes
- Venetian Routes
- Genoese Routes
- Venetian & Genoese
- ..... Overland & River Routes



# Portugal

1430 - 1540

- **Goldhandel mit Guinea und indischem Pfeffer**

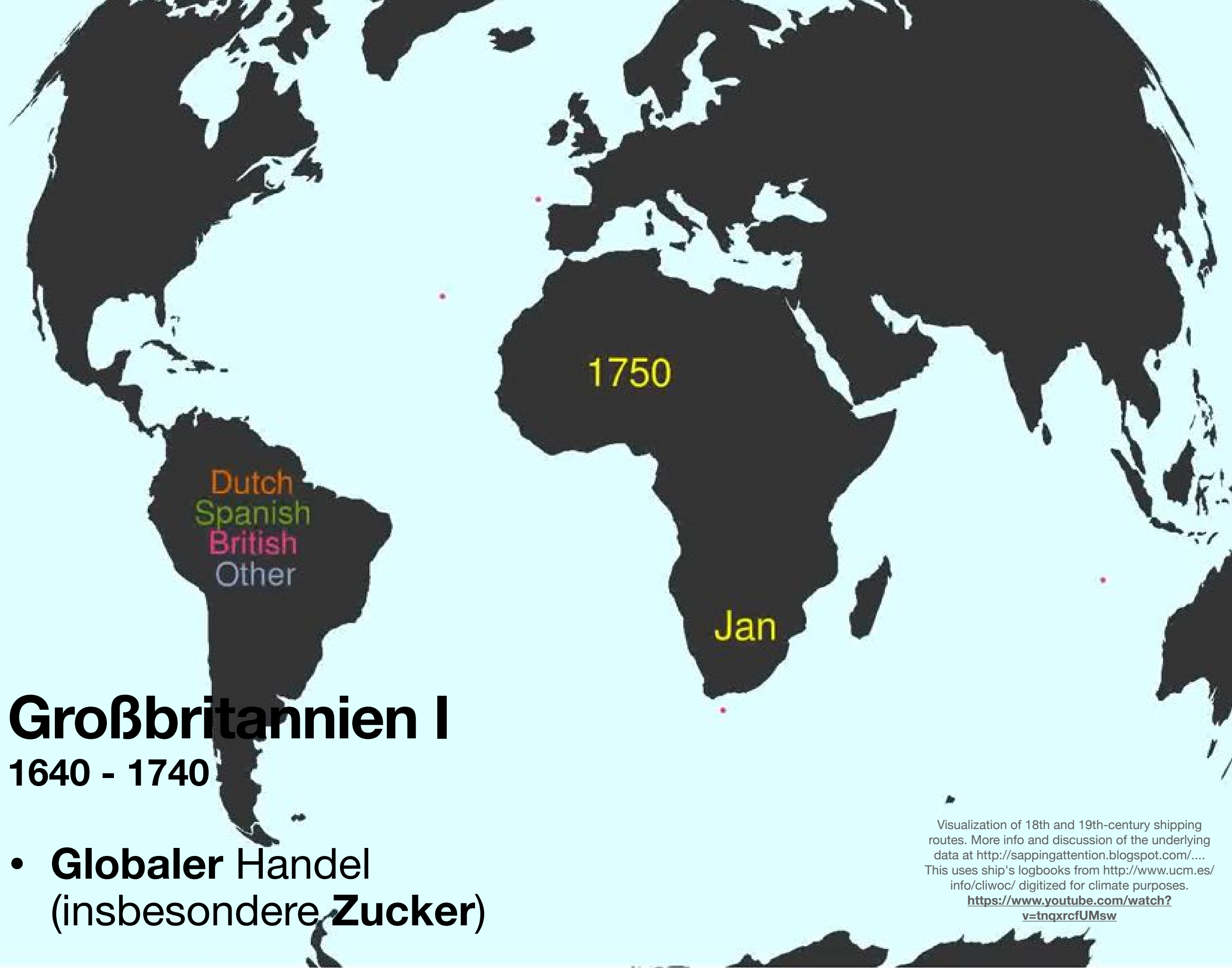


# Niederlande

## 1540 - 1640

- Baltischer und Atlantikhandel, später Erweiterung in Asienetzwerke





# Großbritannien I

1640 - 1740

- **Globaler Handel**  
(insbesondere **Zucker**)

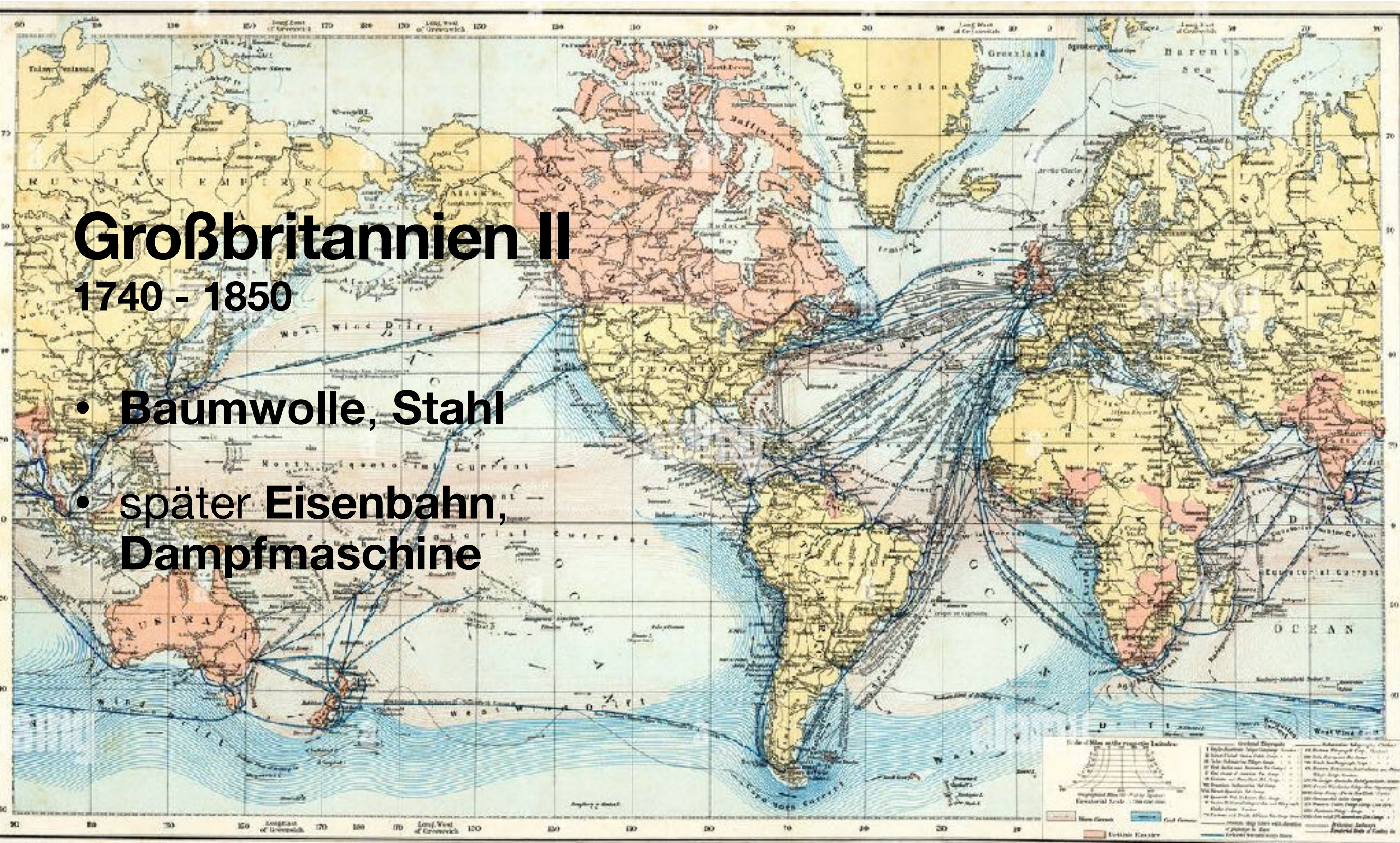
Visualization of 18th and 19th-century shipping routes. More info and discussion of the underlying data at <http://sappingattention.blogspot.com/...>  
This uses ship's logbooks from <http://www.ucm.es/info/cliwoc/> digitized for climate purposes.  
<https://www.youtube.com/watch?v=tnqxrcfUMsw>



# Großbritannien II

1740 - 1850

- **Baumwolle, Stahl**
- **später Eisenbahn, Dampfmaschine**



THE QUEEN'S EMPIRE  
SHOWING THE COMMERCIAL ROUTES OF THE WORLD, AND OCEAN CURRENTS



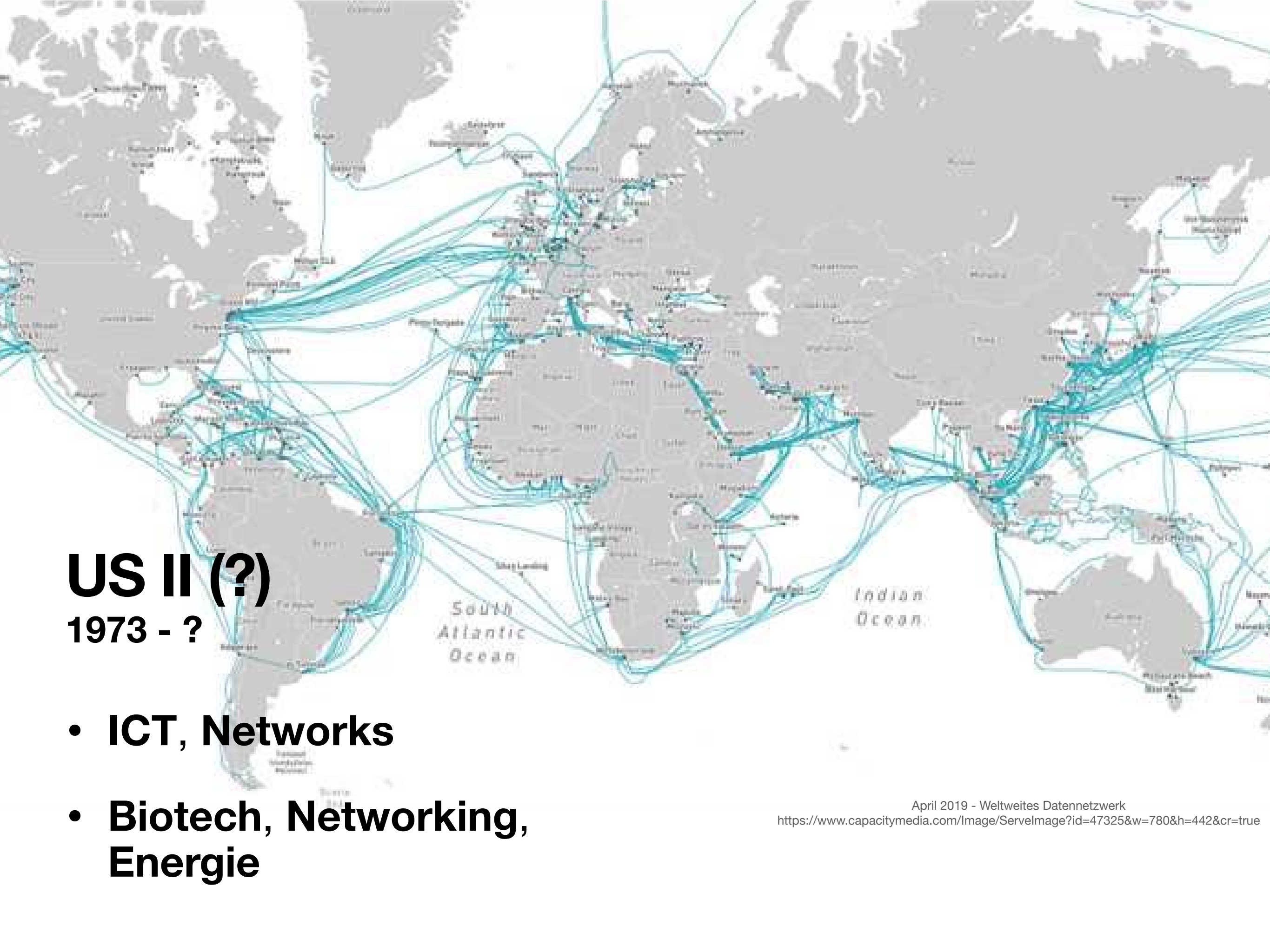
A black and white photograph of Henry Ford standing next to a Ford Model T car. Henry Ford is wearing a dark suit, a white shirt, a dark tie, and a bowler hat. He is standing with his hands in his pockets, looking towards the camera. The car is a dark-colored Model T with a light-colored top. The license plate on the car reads "2-385-19". In the background, there is a crowd of people, some of whom are wearing hats and coats, suggesting a public event or a car show. The overall scene is set outdoors, possibly on a dirt road or a field.

# US I

1850 - 1973

- **Stahl, Chemie, Strom**
- **später Automobil, Luftfahrt, Elektronik**

[https://www.history.com/.image/c\\_limit%2Ccs\\_srgb%2Cq\\_auto:good%2Cw\\_700/MTcxNDE1NTUwNjkyNTAxMTcx/henry-ford-gettyimages-51098603.webp](https://www.history.com/.image/c_limit%2Ccs_srgb%2Cq_auto:good%2Cw_700/MTcxNDE1NTUwNjkyNTAxMTcx/henry-ford-gettyimages-51098603.webp)

A world map with a complex network of teal lines representing data connections between various global nodes. The lines are most dense in North America, Europe, and East Asia, with thinner lines connecting to South America, Africa, and Australia. Major cities and regions are labeled, and the South Atlantic and Indian Oceans are specifically named.

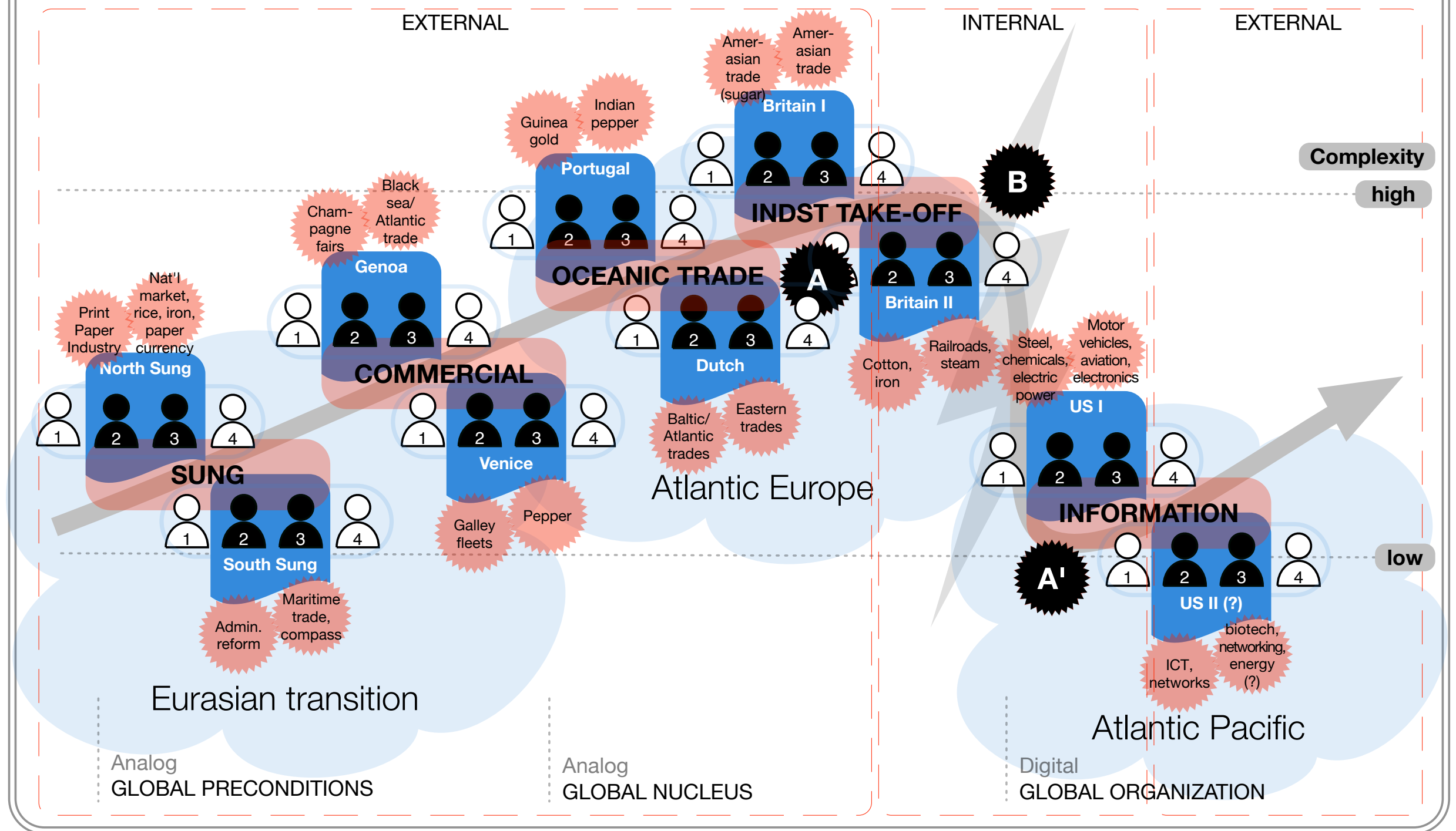
## US II (?)

1973 - ?

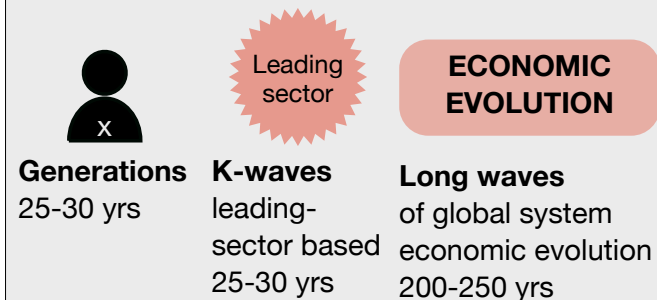
- ICT, Networks
- Biotech, Networking, Energie



# Complex Global System Process



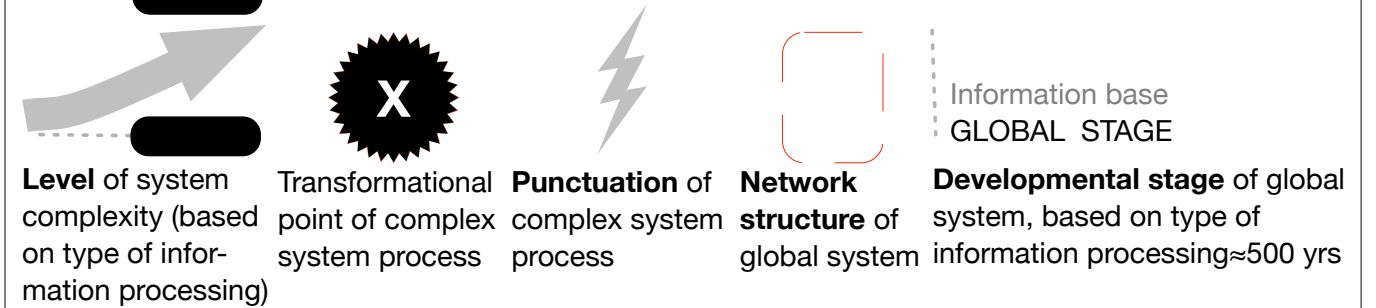
## Global Economic Development



## Global Political Development



## Complex System Process - Development and Structure

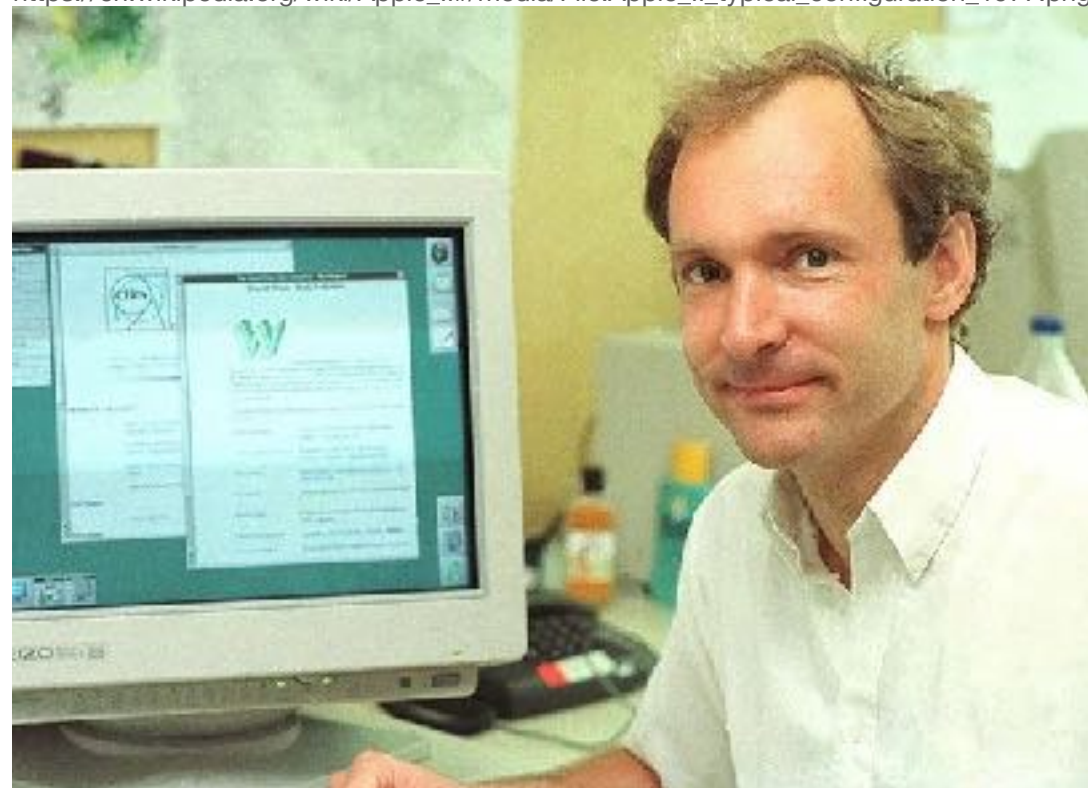




[https://en.wikipedia.org/wiki/File:IPhone\\_1st\\_Gen.svg](https://en.wikipedia.org/wiki/File:IPhone_1st_Gen.svg)



[https://en.wikipedia.org/wiki/Apple\\_II#/media/File:Apple\\_II\\_typical\\_configuration\\_1977.png](https://en.wikipedia.org/wiki/Apple_II#/media/File:Apple_II_typical_configuration_1977.png)



<https://www.scinexx.de/wp-content/uploads/w/w/www1g.jpg>



# Internet of Things (IoT)







# Big 5 - GAFAM

**Google** (Alphabet)

**Apple**

**Facebook** (Meta)

**Amazon**

**Microsoft**

# So, und jetzt?

Was das **Morgen** mit dem **Heute** zu tun hat

- Neue Systemlogiken ➡ **Datenzentriertheit**
- Public vs. Private ➡ **Weltsystementwicklung**
- Platform/Digitaler Kapitalismus ➡ **Kulturerisierung**
- **Agency** (multilevel)



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