Map 1

Map Title: State of National Hydrogen Strategy

Thematic or Reference: Thematic Map

Map Description: Map explaining the availability of national hydrogen strategy for each country by October 15th, 2023.

How many Map Frames are there: 2

Answer the following questions for each Map Frame	Map Frame 1	Map Frame 2
Describe the map extent.	World map, showing different year of national hydrogen publication	Europe map inset, to show the detail in Europe continental area
What is the map projection and why was it used?	Goode's Homolosine, to maintain the accuracy of shape for each country by adding interruptions to the ocean, which is not very important for this map.	Europe Lamber Conformal Conic, which has been used for Europe continental, and recommended by the European Environmental Agency.
What geographic unit(s) are used in the Map Frame?	Country	Country
Describe the symbology choice(s) used in the Map Frame.	Unique values to differentiate year of publication for each country, start from 2017 to 2023	Unique values to differentiate year of publication for each country, start from 2017 to 2023
What are the data sources?	Each national hydrogen strategy in 51 countries	Each national hydrogen strategy in 51 countries

Note: Only fill out the applicable columns (some maps may have one Map Frame; others may have 3).

Map 2

Map Title: National Hydrogen Trade Strategy

Thematic or Reference: Thematic

Map Description: Map explaining different in trade strategy in fulfilling domestic demand of hydrogen in the future.

How many Map Frames are there: 3

Answer the	Map Frame 1	Map Frame 2	Map Frame 3
following questions			
for each Map Frame			
Describe the map	World map, explaining different	Korea Japan inset, showing in	Europe inset map, showing in detail how
extent.	trade strategy for each country	detail these two countries in	different European countries in terms of
		specific due to their uniqueness in	<u>hydrogen trade</u>
		this topic	
What is the map	World Robinson, to preserve	Asia Lambert Conformal Conic, to	Europe Lambert Conformal Conic, which
projection and why	familiar shape for each country	preserve shape in Asia region	has been used for Europe continental, and
was it used?	and projection that often used in		recommended by the European
	schoolroom map.		Environmental Agency
What geographic	<u>Country</u>	<u>Country</u>	<u>Country</u>
unit(s) are used in			
the Map Frame?			
Describe the	Unique values to differentiate	Unique values to differentiate	Unique values to differentiate whether
symbology choice(s)	whether the country adopt	whether the country adopt	the country adopt export, import, or
used in the Map	export, import, or neutral in terms	export, import, or neutral in terms	neutral in terms of hydrogen trade
Frame.	of hydrogen trade	of hydrogen trade	
		<u>- , 3</u>	
What are the data	Each national hydrogen strategy in	Each national hydrogen strategy in	Each national hydrogen strategy in 51
sources?	51 countries	51 countries	<u>countries</u>

Note: Only fill out the applicable columns (some maps may have one Map Frame; others may have 3).

Map 3

Map Title: Grid-Powered Electrolysis Potential

Thematic or Reference: Thematic

Map Description: Map explaining the plausibility of a country build a green hydrogen electrolysis infrastructure, proxy by renewable penetration in the electricity grid and the size/capacity of the national grid itself

How many Map Frames are there: 2

Answer the following questions for each Map	Map Frame 1	Map Frame 2
Frame		
Describe the map extent.	World map, explaining different renewable	Europe continental map inset to explain in more detail
	penetration rate and the size of national grid	for European region
What is the map	World Robinson, to preserve familiar shape for each	Europe Lambert Conformal Conic, which has been used
projection and why was	country and projection that often used in schoolroom	for Europe continental, and recommended by the
it used?	map.	European Environmental Agency
What geographic unit(s)	Country	Country
are used in the Map		
Frame?		
Describe the symbology	Bivariate colors, to illustrate the intersections of two	Bivariate colors, to illustrate the intersections of two
choice(s) used in the	discussed variables, which is the renewable energy	discussed variables, which is the renewable energy
Map Frame.	penetration and the nation grid size/capacity	penetration and the nation grid size/capacity
What are the data	Energy Institute, "Statistical Review of World Energy	Energy Institute, "Statistical Review of World Energy
sources?	<u>2023"</u>	<u>2023"</u>

Note: Only fill out the applicable columns (some maps may have one Map Frame; others may have 3).

Map 4

Map Title: Grey Hydrogen Potential

Thematic or Reference: Thematic

Map Description: Map explaining the potential of each country develop grey (natural gas derived) hydrogen based on proven gas reserved, net export/import of natural gas, and economic efficiency.

How many Map Frames are there?

Answer the	Map Frame 1	Map Frame 2	Map Frame 3
following			
questions for each			
Map Frame			
Describe the map	World map	European inset	Middle east
extent.			
What is the map	Goode's Homolosine, to maintain the	Europe Lambert Conformal Conic,	Africa Albers Equal Area Conic,
projection and	accuracy of shape for each country by	which has been used for Europe	which is used usually for Africa
why was it used?	adding interruptions to the ocean,	continental, and recommended by	continental, and the closest equal
	which is not very important for this	the European Environmental Agency	area projection for the middle east.
	map.		
What geographic	<u>Country</u>	<u>Country</u>	<u>Country</u>
unit(s) are used in			
the Map Frame?			
Describe the	Bivariate colors, to illustrate the	Bivariate colors, to illustrate the	Bivariate colors, to illustrate the
symbology	intersectionality of two important	intersectionality of two important	intersectionality of two important
choice(s) used in	variables, net export/import status,	variables, net export/import status,	variables, net export/import status,
the Map Frame.	and the economic efficiency.	and the economic efficiency.	and the economic efficiency.
	In addition, proportional symbol is also	In addition, proportional symbol is	In addition, proportional symbol is
	used to illustrate the proven gas	also used to illustrate the proven gas	also used to illustrate the proven
	reserved in each country.	reserved in each country.	gas reserved in each country.
What are the data	Energy Institute, "Statistical Review of	Energy Institute, "Statistical Review	Energy Institute, "Statistical Review
sources?	World Energy 2023"	of World Energy 2023"	of World Energy 2023"

Note: Only fill out the applicable columns (some maps may have one Map Frame; others may have 3).