



2024
STUDENT RESEARCH
Case Study Challenge

Online Encyclopedia Entry:
Lumaria
January 19, 2024

Some of the following information was created with the assistance of Bard, a generative AI from Google AI, in November 2023 in response to numerous prompts and specifications provided by the Society of Actuaries Research Institute 2024 Student Research Case Study development team. Bard’s resulting output has been edited for style and content.

Should students use any form of generative AI in any phase of the development of their Student Research Case Study Challenge submission, students are strongly encouraged to use very robust forms of citation.

Lumaria

Nestled amidst a picturesque landscape of rolling hills, verdant forests, and shimmering lakes, Lumaria stands as a beacon of modernity intertwined with a rich and ancient heritage. The country's people, known for their warmth, welcoming spirit, and zest for life, reside within a temperate climate adorned with four distinct seasons.

GEOGRAPHICAL AND POLITICAL STATISTICS

- Political system — Constitutional monarchy, with a king or queen as head of state and elected official as head of government
- Administrative division — 12 provinces

DEMOGRAPHIC STATISTICS

- Population — 92,077,659 (2023 estimate)
- Age distribution

Age Range	Percent of Population
0 to 14	20%
15 to 24	18%
25 to 54	46%
55 to 64	12%
65 +	4%

ECONOMIC STATISTICS

- Currency — Crowns (Č)
- Exchange rate — Lumarian Č 1.743 = US \$ 1
- GDP (PPP) — Č 43,064,000,000 (2023 estimate)
- GDP per capita (PPP) — Č 46,722.28 (2023 estimate)

- Distribution of annual income

Income Range (€)	Percent of Population
0 – 9,999	10%
10,000 – 24,999	20%
25,000 – 49,999	30%
50,000 – 99,999	25%
10,000 +	15%

- Economic pillars — Manufacturing, services, agriculture

- Employment distribution

- Overall

Sector	Percent of Employed Population
Agriculture	12%
Industry	35%
Service	53%

- Within the industry sector

Industry	Percent of Industry Sector
Manufacturing	55%
Construction	15%
Utilities	10%
Mining	20%

- Within the services sector

Service	Percent of Services Sector
Wholesale and retail trade	25%
Education and health care	20%
Professional and technical services	20%
Government	20%
Other services	15%

- Major exports — Manufactured goods, agricultural products, tourism services
- Primary imports — Machinery and equipment, raw materials, consumer goods, energy, foodstuff

SOCIAL AND CULTURAL STATISTICS

- Official language — Lumarian; English is also widely spoken, especially because of tourism
- Major religion — Lumenism
- Life expectancy at birth — 78.4 years (2023 estimate)
- Literacy rate — 96.8 (2023 estimate)
- Infant mortality rate — 4.3 deaths per 1,000 live births (2023 estimate)
- Smoking rate — 18% of persons age 18 and older smoke
- Education system — Compulsory education from ages 6 to 16
- Healthcare system — Universal healthcare system
- Cultural treasures — Lumina Castle, the Royal Palace, the National Museum, the Lumen Temple, the Lumarian Alps, and the Lumarian Forest.

OTHER STATISTICS

- Tourism — Lumaria holds a prominent position as a tourist destination, renowned for its breathtaking scenery, rich history, and vibrant cultural tapestry.
- Environmental stewardship — Lumaria is committed to safeguarding its environment, demonstrating significant progress in pollution reduction and resource conservation.
- Historical tapestry — Boasting a long and illustrious history dating back to the Bronze Age, Lumaria has witnessed the reign of powerful monarchs and navigated numerous wars and conflicts.

- Notable figures — Lumaria has produced a remarkable array of celebrated individuals, including scientists, mathematicians, authors, artists, musicians, and athletes.

FASCINATING CURIOSITIES

- Lumarian Luminous Lake — This vast freshwater lake, nestled amidst the Lumarian Alps, is renowned for its mesmerizing turquoise hue, a result of glacial meltwater and unique mineral deposits. Its serene waters reflect the surrounding mountains, creating a breathtaking spectacle.
- Lumarian Skyreach — Soaring majestically above the Lumarian landscape, Skyreach stands as one of the world's tallest mountains, its peak piercing the clouds. Its slopes are home to a diverse array of flora and fauna, some of which are found nowhere else on Earth.
- Lumarian Whispering Woods — This ancient forest, believed to be among the oldest on the planet, is shrouded in an air of mystery and enchantment. Its towering trees, some estimated to be over 5,000 years old, whisper secrets to the wind, creating an atmosphere of tranquility and wonder.

MAJOR HOLIDAYS

- Lumarian Awakening — Celebrated on the first day of spring, Lumarian Awakening marks the end of winter and the beginning of a new season. People gather to enjoy traditional food, music, and dance, and to welcome the warmer weather.
- Super Luminova — Celebrated on the summer solstice, Super Luminova is a day of celebration and revelry. People engage in outdoor activities, such as swimming, hiking, and camping, and enjoy fireworks displays and bonfires.
- Lumarian Harvest Festival — Celebrated in the fall, the Lumarian Harvest Festival is a time for giving thanks for the year's bounty. People gather to share food, music, and dance, and to express gratitude for the blessings of the harvest.

Society of Actuaries Research Institute
8770 Bryn Mawr Ave., Suite 1000
Chicago, IL 60631
www.SOA.org