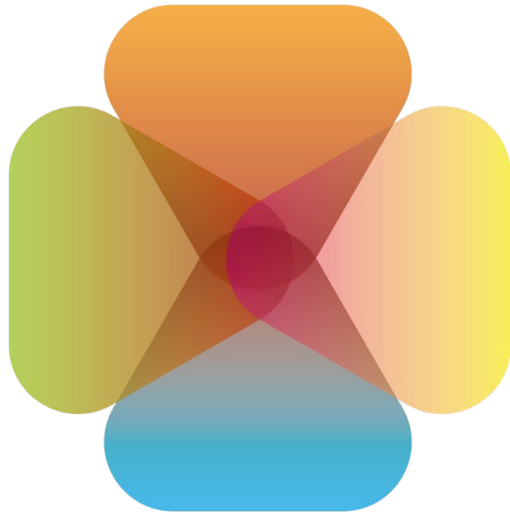




**ACCREU**  
Assessing  
Climate Change  
Risk in **EU**rope

# Financing Needs of the National Adaptation Plan of Cyprus

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The Cyprus Institute

Workshop on enhancing disaster risk  
management and climate change  
adaptation in Cyprus,  
Nicosia, 14/10/2025

# Background

Interesting coincidence of three projects:

- Revision of the National Adaptation Strategy
- Assessment of the impact of climate change on the economy of Cyprus requested by the Ministry of Finance
- Horizon Europe project ACCREU required to develop a case study about adaptation from Cyprus
  - we decided to conduct an economy-wide case study

# Background – Cost of inaction

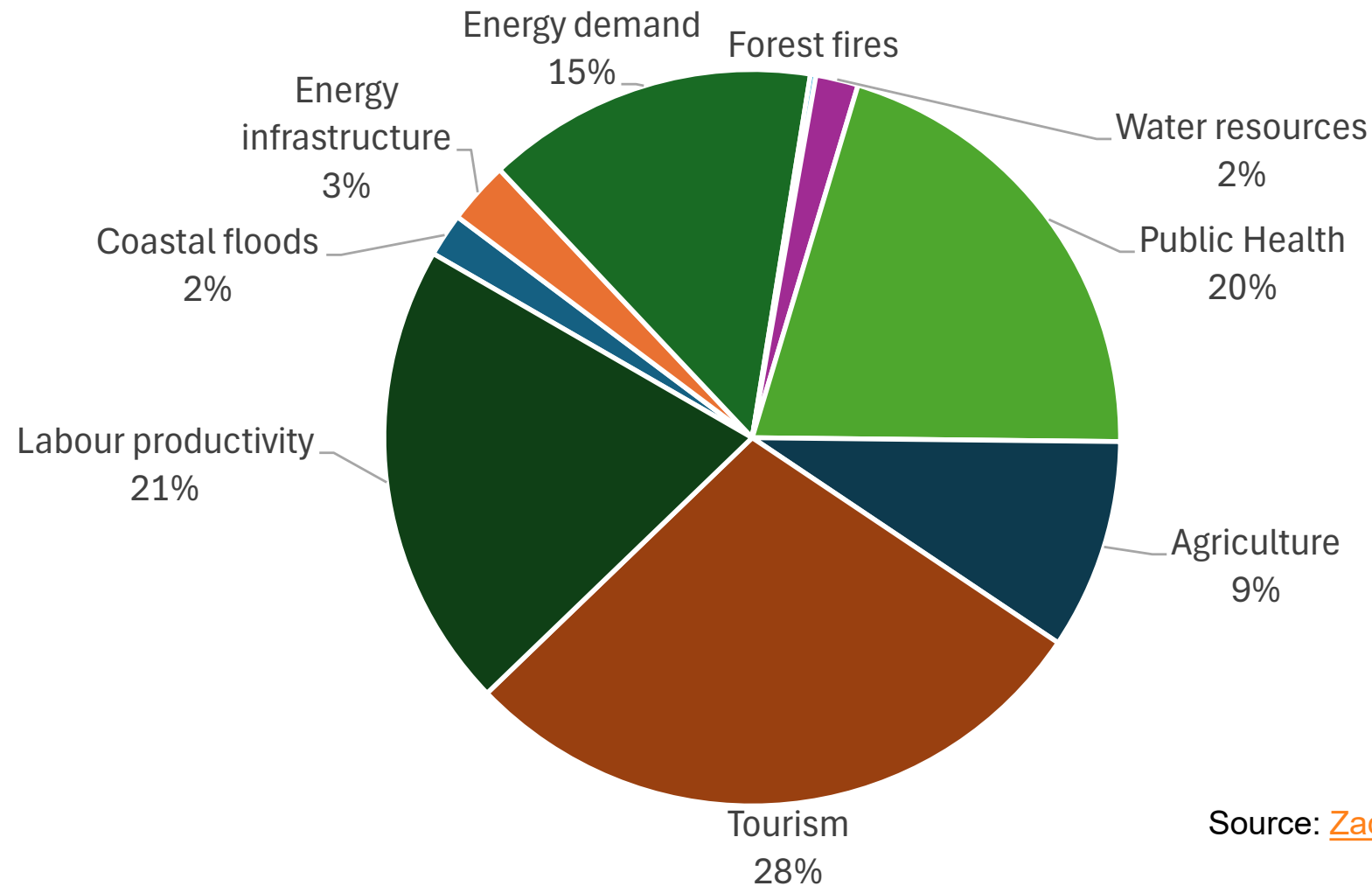
| Unabated climate change impacts<br>(present value in million Euros'2023) |                 |                 |
|--------------------------------------------------------------------------|-----------------|-----------------|
| Sector                                                                   | Cost up to 2050 | Cost up to 2100 |
| Coastal floods                                                           | 348             | 5,000           |
| Energy infrastructure                                                    | 500             | 1,000           |
| Energy demand                                                            | 2,659           | 8,409           |
| Forest fires                                                             | 44              | 202             |
| Water resources                                                          | 341             | 1,358           |
| Public Health                                                            | 3,750           | 26,620          |
| Agriculture                                                              | 1,687           | 3,000           |
| Tourism                                                                  | 5,186           | 27,598          |
| Labour productivity                                                      | 3,753           | 17,136          |
| <b>TOTAL</b>                                                             | <b>18,270</b>   | <b>90,324</b>   |

Note: “Total” costs may be misleading because the assessment per sector is based on a different methodology

Source: [Zachariadis et al. \(2025\)](#)

# Background – Cost of inaction

Climate Change Impacts in Cyprus up to 2050 without Adaptation Measures (total present value of costs: 18.2 billion Euros'2023)



Source: [Zachariadis et al. \(2025\)](#)

# Measures included in the Cyprus Adaptation Strategy

| Policy areas – NAS 2025 (no. of measures per policy area in brackets)      |
|----------------------------------------------------------------------------|
| Agriculture (9)                                                            |
| Biodiversity and Ecosystems (10)                                           |
| Cultural Heritage (8)                                                      |
| Disaster Risk Management, Civil Protection and Critical Infrastructure (8) |
| Economy, Industry and Finance (5)                                          |
| Energy (5)                                                                 |
| Fisheries and Aquaculture (5)                                              |
| Forestry (10)                                                              |
| Health (6)                                                                 |
| Hydrological Regime and Water Management (13)                              |
| Sea and Coastal Areas (3)                                                  |
| Soil (7)                                                                   |
| Spatial Planning (5)                                                       |
| Tourism (3)                                                                |
| Infrastructure, Transport and Buildings (10)                               |
| Cross-sectoral governance measures (7)                                     |
| Cross-sectoral educational measures (5)                                    |
| <b>Total: 119</b>                                                          |

# Research / Policy Questions

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1. What are the current adaptation investment needs up to 2030/2050?
2. Which of these investments are ongoing or planned with a specific budget and time plan?
3. Which part of these investments must be covered by public or private funds?
4. What are the damages from unmitigated climate change expected for 2050/2100?

# Methodology – 1

- We attempted to assign costs to each of the strategy's 119 measures (guided by “low-medium-high” cost assessment of each measure's factsheet and by the measure's description)
- We considered that, in principle, the full list of measures expresses the adaptation investment needs up to 2030/2050
- Some measures needed to be expanded in duration/cost to reach 2050
- We tried to consider only additional measures (e.g. current desalination units and wildfire protection measures are not additional)

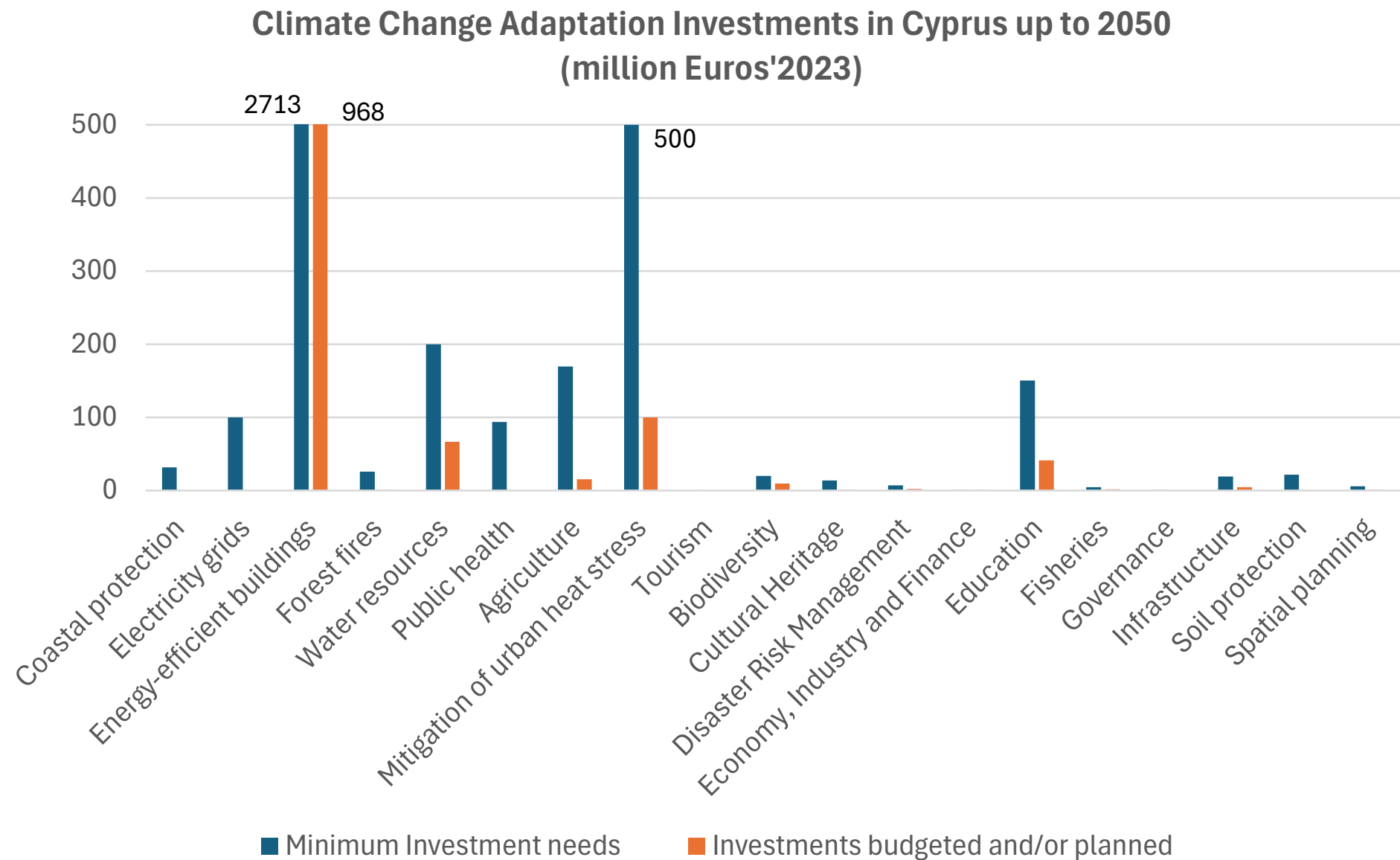
# Methodology – 2

- Checking each measure's factsheet, we assessed whether measure (a) is ongoing, (b) is included in plans and budgets, or (c) no provision yet.
- Comparing the entire set of measures and the resulting total investment needs with those already planned leads to an assessment of the adaptation gap and the adaptation funding gap.
- We consulted 5 additional strategic documents of Cyprus:
  - The National Investment Plan of Water Works of September 2024.
  - The Strategic Document for CAP related measures 2023-2027.
  - The National Energy and Climate Plan and the National Building Renovation Strategy submitted to the European Commission in 2024.
  - The Ten-Year Plan for the Development of the Electricity Transmission System, 2024-2033.
  - The October 2023 report about the preparation of flood risk maps in the frame of the revised Flood Risk Management Plan.

# Results – required and planned adaptation investments

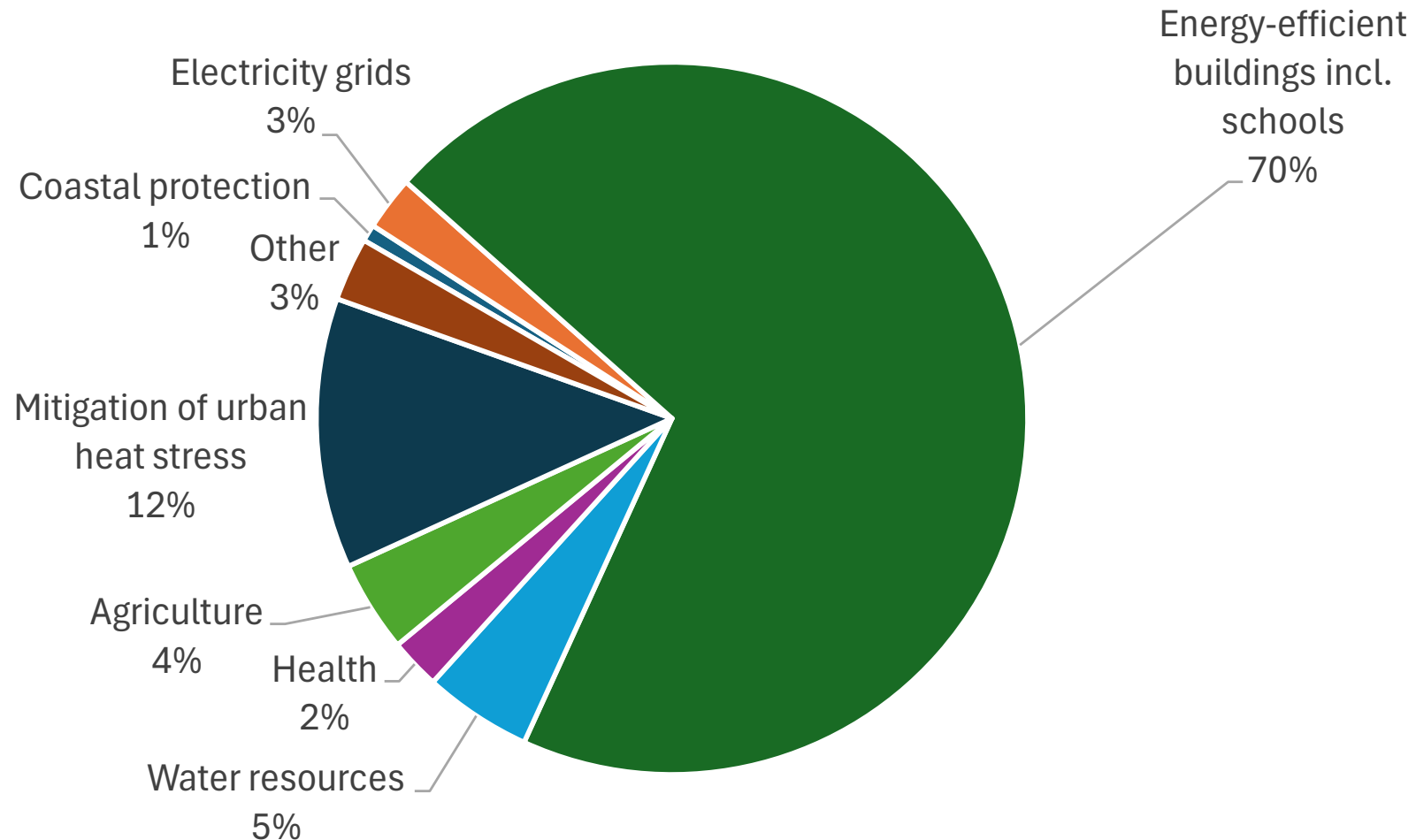
| Investments up to 2050 (million Euros'2023) |                  |                                         |                                           |
|---------------------------------------------|------------------|-----------------------------------------|-------------------------------------------|
|                                             | Investment needs |                                         |                                           |
| Policy area                                 | Total            | From public<br>(national + EU)<br>funds | Investments<br>budgeted and/or<br>planned |
| Coastal protection                          | 31               | 31                                      | 0                                         |
| Electricity grids                           | 100              | 100                                     | 0                                         |
| Energy-efficient buildings                  | 2,713            | 1,628                                   | 968                                       |
| Forest fires                                | 26               | 26                                      | 1                                         |
| Water resources                             | 200              | 71                                      | 66                                        |
| Public health                               | 94               | 94                                      | 0                                         |
| Agriculture                                 | 169              | 169                                     | 15                                        |
| Mitigation of urban heat stress             | 500              | 400                                     | 100                                       |
| Tourism                                     | 0                | 0                                       | 0                                         |
| Biodiversity                                | 20               | 20                                      | 10                                        |
| Cultural Heritage                           | 14               | 14                                      | 1                                         |
| Disaster Risk Management                    | 7                | 7                                       | 2                                         |
| Economy, Industry and Finance               | 1                | 1                                       | 1                                         |
| Education                                   | 150              | 150                                     | 41                                        |
| Fisheries                                   | 4                | 4                                       | 1                                         |
| Governance                                  | 1                | 1                                       | 0                                         |
| Infrastructure                              | 19               | 19                                      | 5                                         |
| Soil protection                             | 21               | 21                                      | 0                                         |
| Spatial planning                            | 6                | 6                                       | 1                                         |
| <b>TOTAL</b>                                | <b>4,075</b>     | <b>2,760</b>                            | <b>1,212</b>                              |

# Results – required and planned adaptation investments



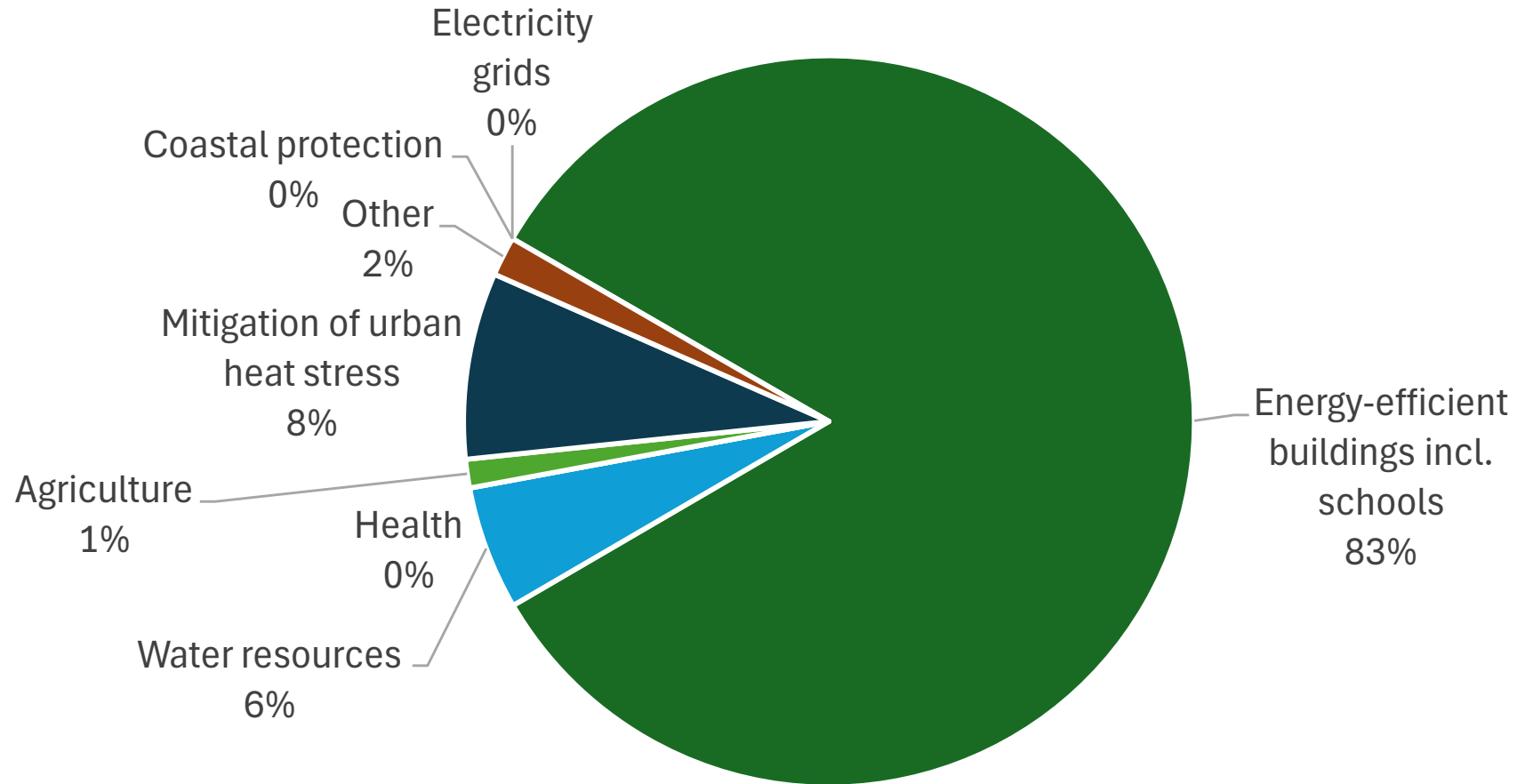
# Results – Adaptation investment needs

Minimum Climate Change Adaptation Investment Needs in Cyprus  
up to 2050 (total: 4.1 billion Euros'2023)



# Results – Adaptation investments planned

Adaptation Investments in Cyprus Budgeted and/or Planned  
(total: 1.2 billion Euros'2023)



# Summary

- Additional adaptation investments in Cyprus up to 2050 estimated at 4.1 billion Euros'2023, or 0.5% of national GDP of the entire period.
- Less than 30% is currently planned, i.e. projects worth about 1.2 billion Euros → adaptation funding gap of 2.9 billion Euros'2023.
- From the 4.1 billion Euros necessary, 2/3 should come from public funds
- Required additional investments are not prohibitive for the economy, which has already largely adapted to the existing climate conditions.
- Attention to investments such as coastal infrastructure, electricity grid, to monitoring public health due to heat waves and communicable diseases.
- Climate change damages without adaptation at least 3.5 times higher by 2050 – and over 20 times higher by 2100

# Acknowledgement

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- Part of the results used in this study were derived from the project “Economic Impact of Climate Change in Cyprus” that we are conducting in collaboration with the Economics Research Centre of the University of Cyprus and is funded by the Ministry of Finance of the Republic of Cyprus.

All views expressed here, and any errors or omissions, are mine.

# Thank you

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