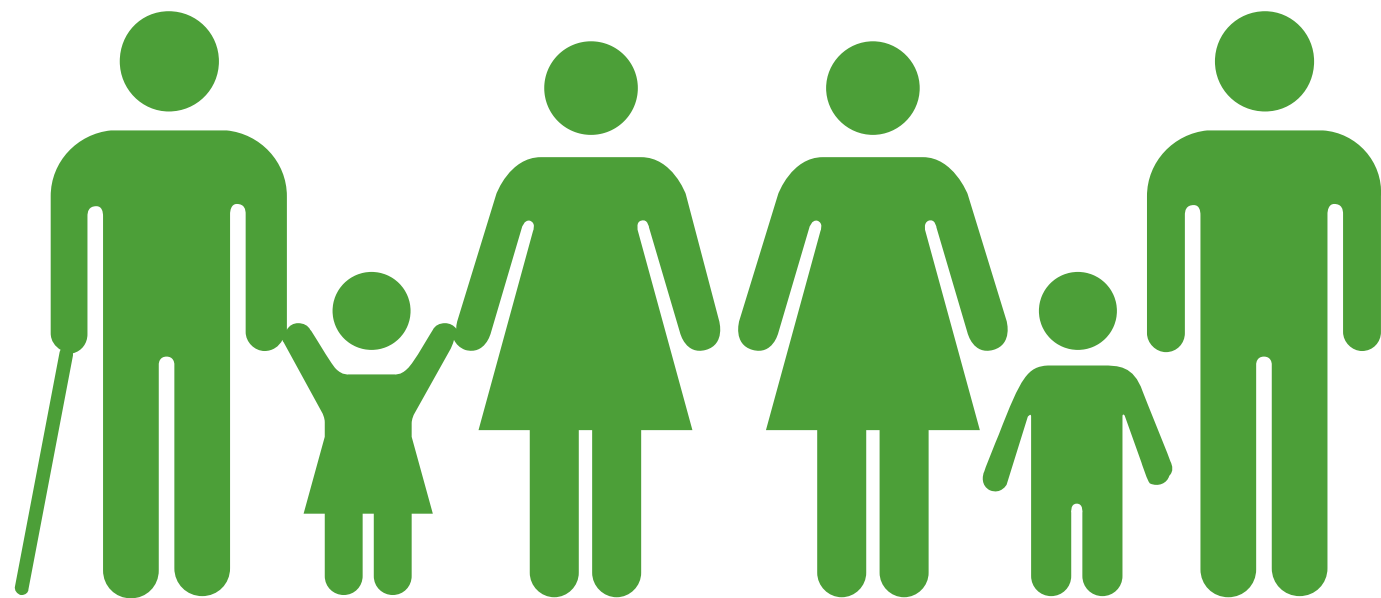


# Open Access Publishing Trends at IIT Delhi and Sustainable Development Goals



Charu  
Indian Institute of Technology Delhi  
NACLIN 2025

# Outline



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Introduction

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Overview

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Open Access Publication at IIT Delhi

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Total OA Publications

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Yearwise Publication Trends

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Document Share by OA Type

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Goal-wise Publication

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Discussion & Future Directions

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# Introduction



## Open Access Publishing and the United Nations' Sustainable Development Goals



- Open Access (OA) publishing has become a transformative force in scholarly communication, changing how research is disseminated, accessed, and evaluated.
- The United Nations' (UN) third Open Science Conference underscored the crucial role of open science in attaining the Sustainable Development Goals (SDGs).
- Open access (OA) publishing encourages academic collaboration, increases research visibility, and supports the SDGs.
- The SDG framework comprises 17 goals and 169 targets, aiming to eliminate poverty, protect the planet, and ensure prosperity, peace, and justice for all by 2030.

# Overview



## Objective

## Methodology

## Outcome

## Limitations

To identify open access publishing trends at IIT Delhi (2015–2025).

Publication data collected from Web of Science database.

Total 4,211 publications (19.7%) were open access (OA).

To identify trends in SDG linked research publication at IIT Delhi.

The SDG filter in WoS was used to identify all SDG-related publications.

53.2% of IIT Delhi’s overall publications and 57.3% of its OA papers are SDG-related.

To examine the year-wise publication trends.

A year-wise filter was applied to analyse research output from 2015 to 2025.

2021 and 2022 recorded the highest number of publications.

Evaluate the types and growth of OA models.

Filtered by OA type, excluding Green Submitted and Green Accepted as they are not final or peer-reviewed versions.

Gold Open Access has the largest share among all types of open access publishing.

Identify the SDGs with maximum and limited research output for future directions.

Publications filtered by SDGs one by one to calculate number publications goal wise

Goal 3 – Good Health and Well-Being has the highest research representation.

- Data Source: Web of Science Core Collection — includes SCIE (1965–present), SSCI (2016–present), and AHCI (2016–present).
- Scope Limitation: IIT Delhi publications
- Data Period: 2015 to October 2025.
- Exclusions: “Green submitted” and “green accepted” versions not included.
- A publication may belong to multiple OA types.
- A publication may align with multiple SDG themes.



# Open Access Research Publication at IIT Delhi between 2015 – 2025

**21393**

Total Publications

**11378**

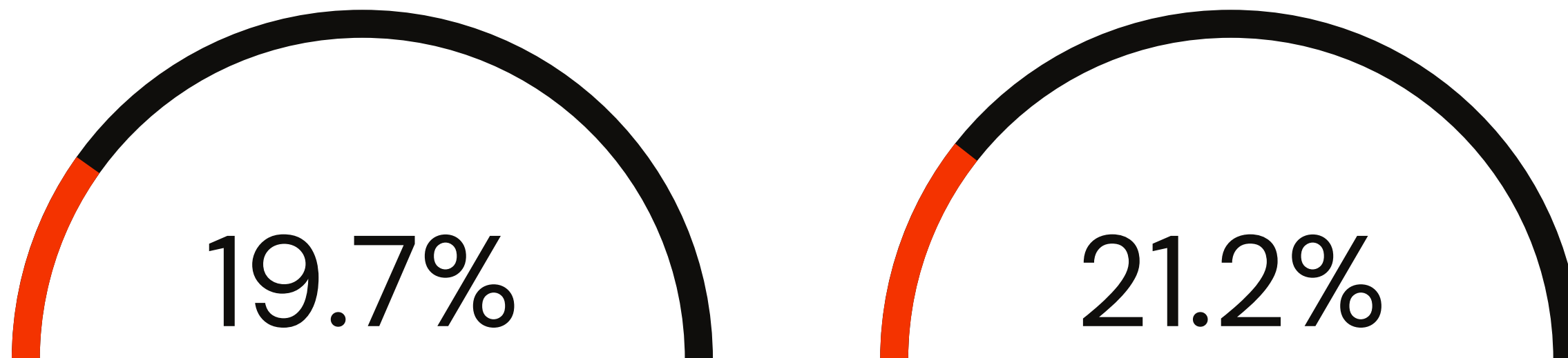
Total SDG-Linked  
Publications

**4211**

Total Open Access  
Publication

**2414**

SDG-Linked Open  
Access Publications



- The total number of publications at IIT Delhi between 2015 and 2025 is 21,393. Of these, 4,211 (19.7%) are published as OA.
- The total number of publications linked to the Sustainable Development Goals (SDGs) is 11,378. Out of these, 2,414 documents (21.2%) are open access (OA).
- It shows that around one-fifth of publications, both overall and SDG-linked, are in open access.



# Share of SDG-Linked Documents in Total Publications

**21393**

Total Publications

**11378**

Total SDG-Linked Publications

**4211**

Total Open Access Publication

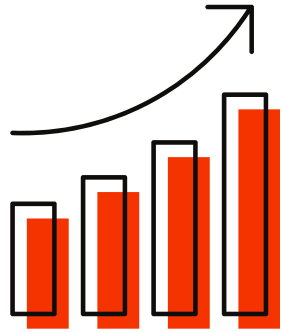
**2414**

SDG-Linked Open Access Publications



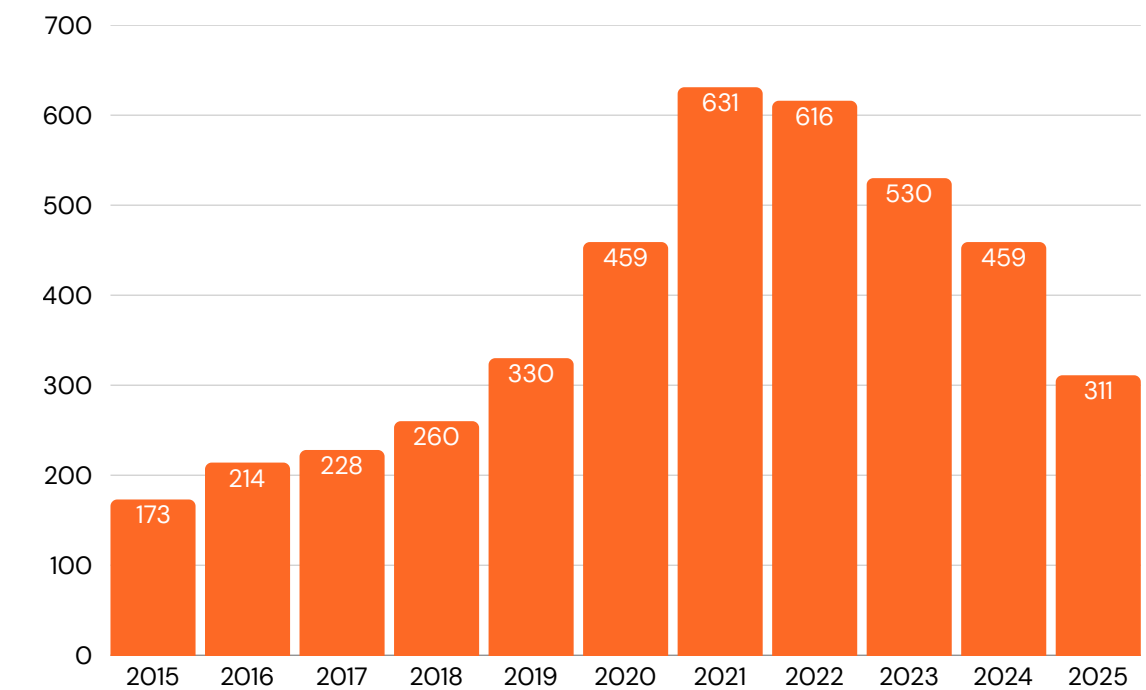
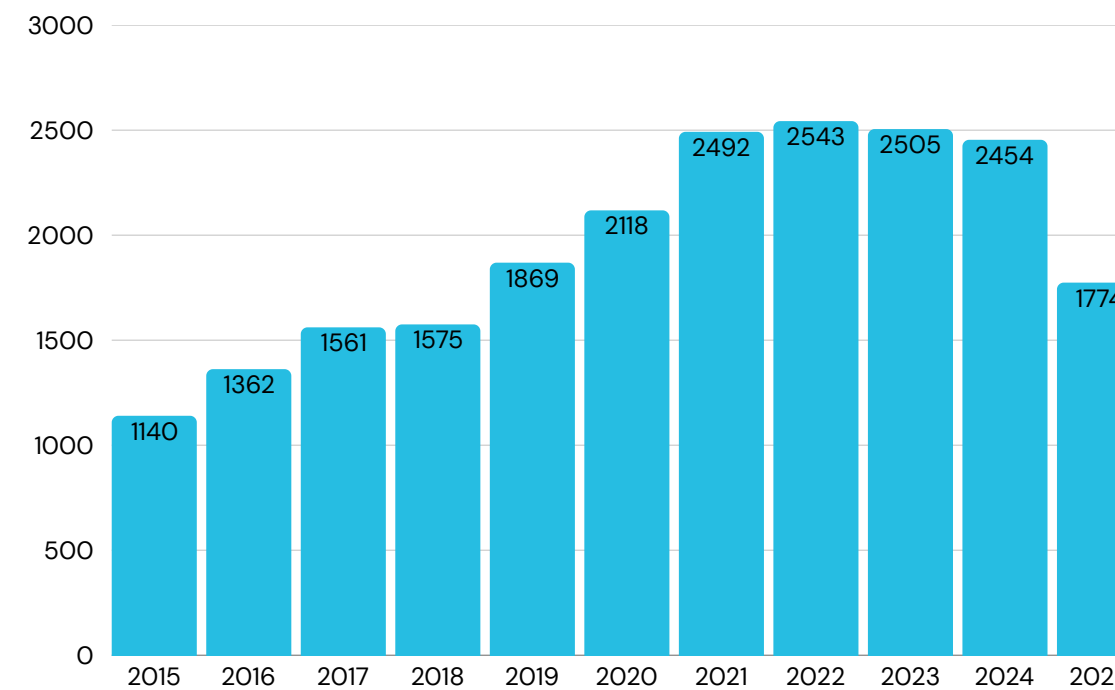
- Out of the total 21,393 publications, 11,378 (53.2%) are related to the Sustainable Development Goals (SDGs).
- Out of 4,211 Open Access (OA) publications, 2,414 (57%) are SDG-linked.
- This shows that more than half of IIT Delhi's overall and OA research actively supports global sustainability themes.

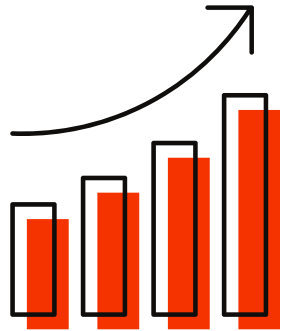




- In 2022, IIT Delhi achieved its highest total number of publications (2,543; 11.9%), while Open Access output peaked in 2021 (631; 15%).
- Overall publishing remained steady after 2021.
- OA publications increased sharply from 2019 to 2022.

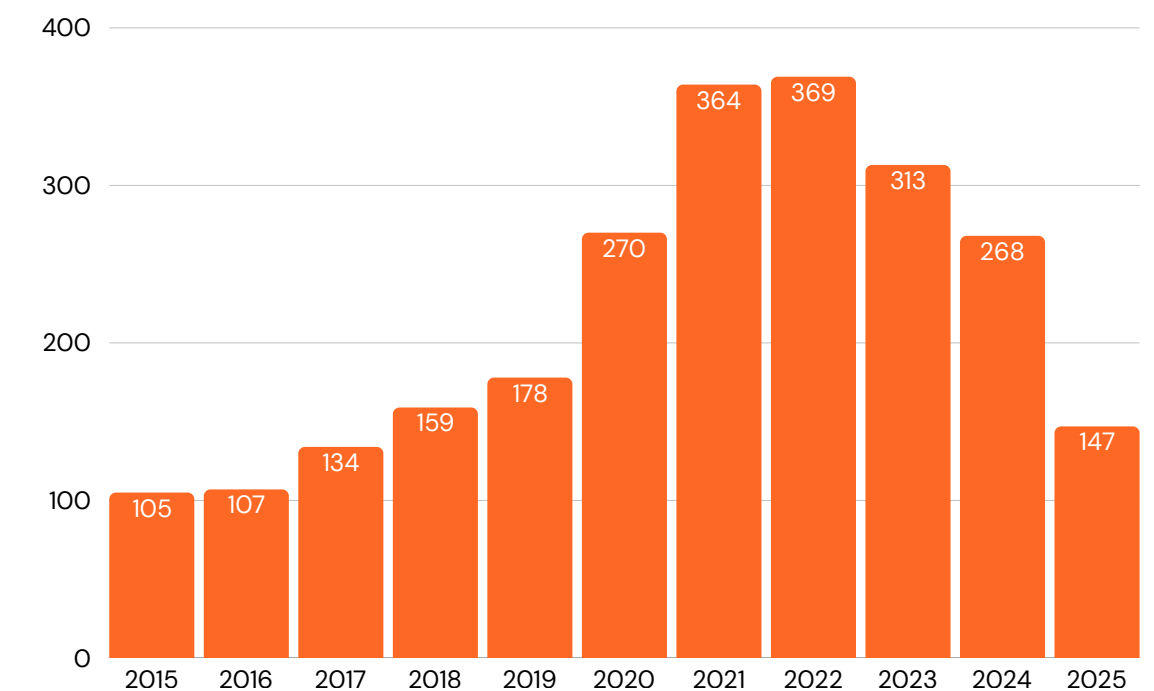
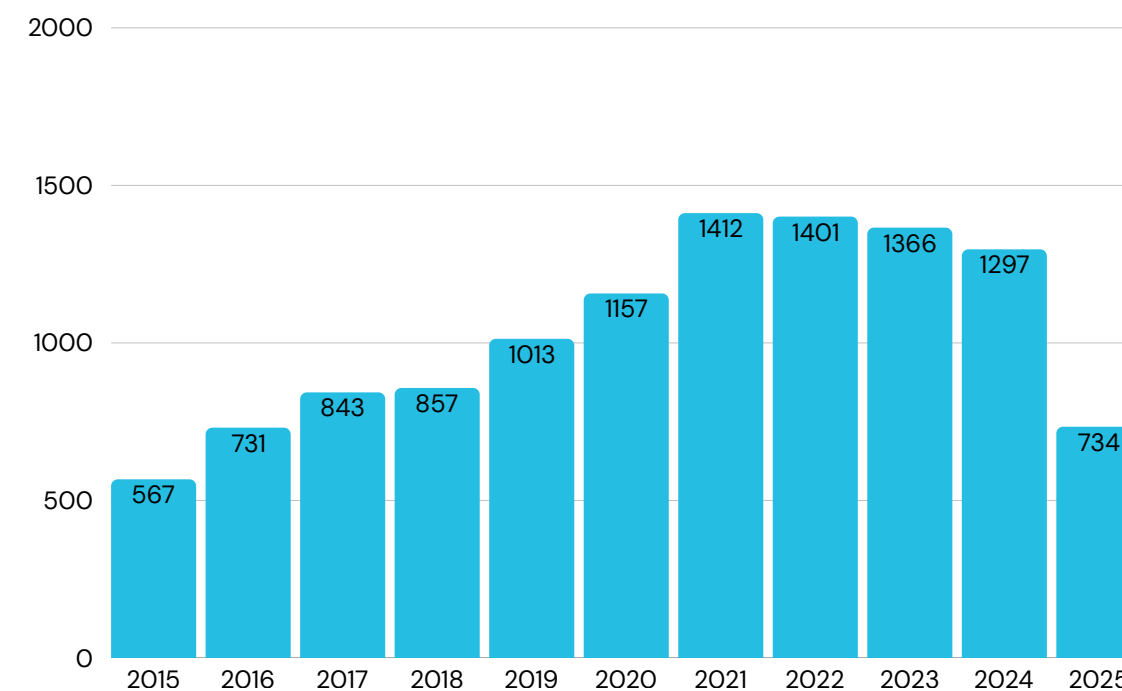
# Yearly Trends of Overall Publications at IIT Delhi



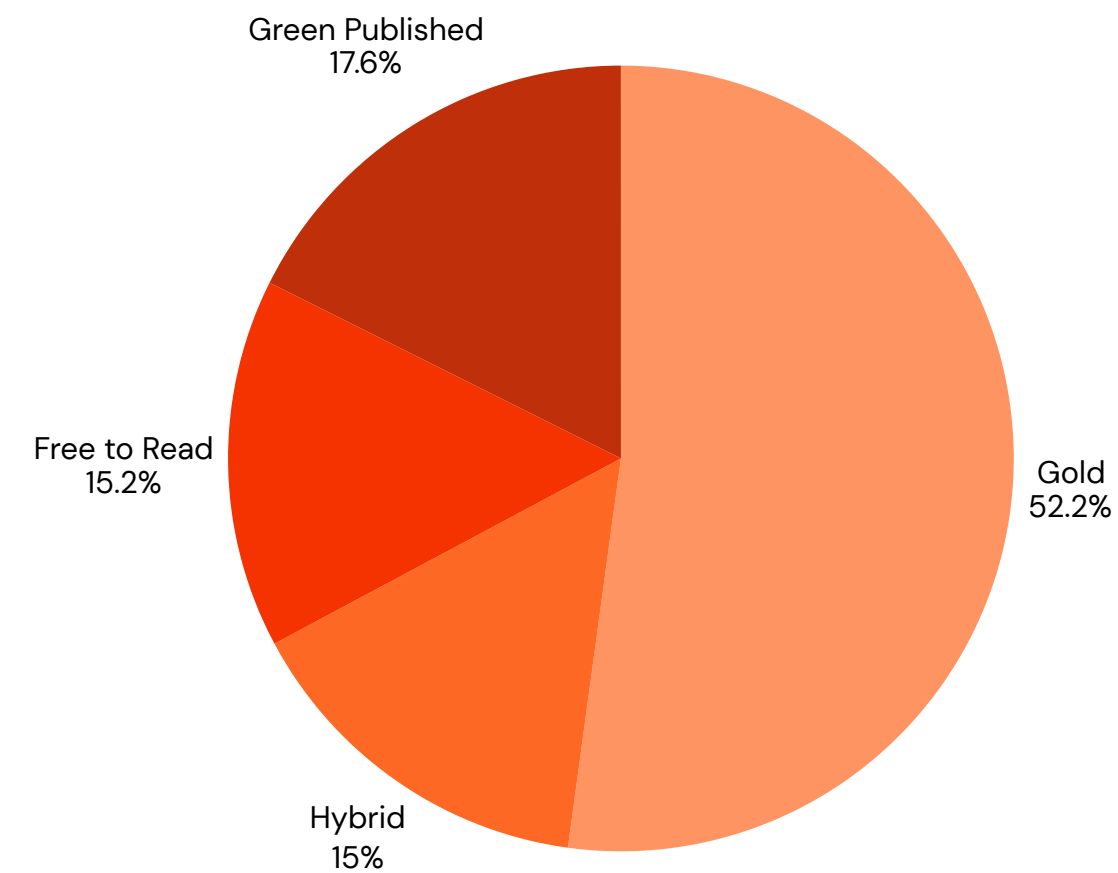
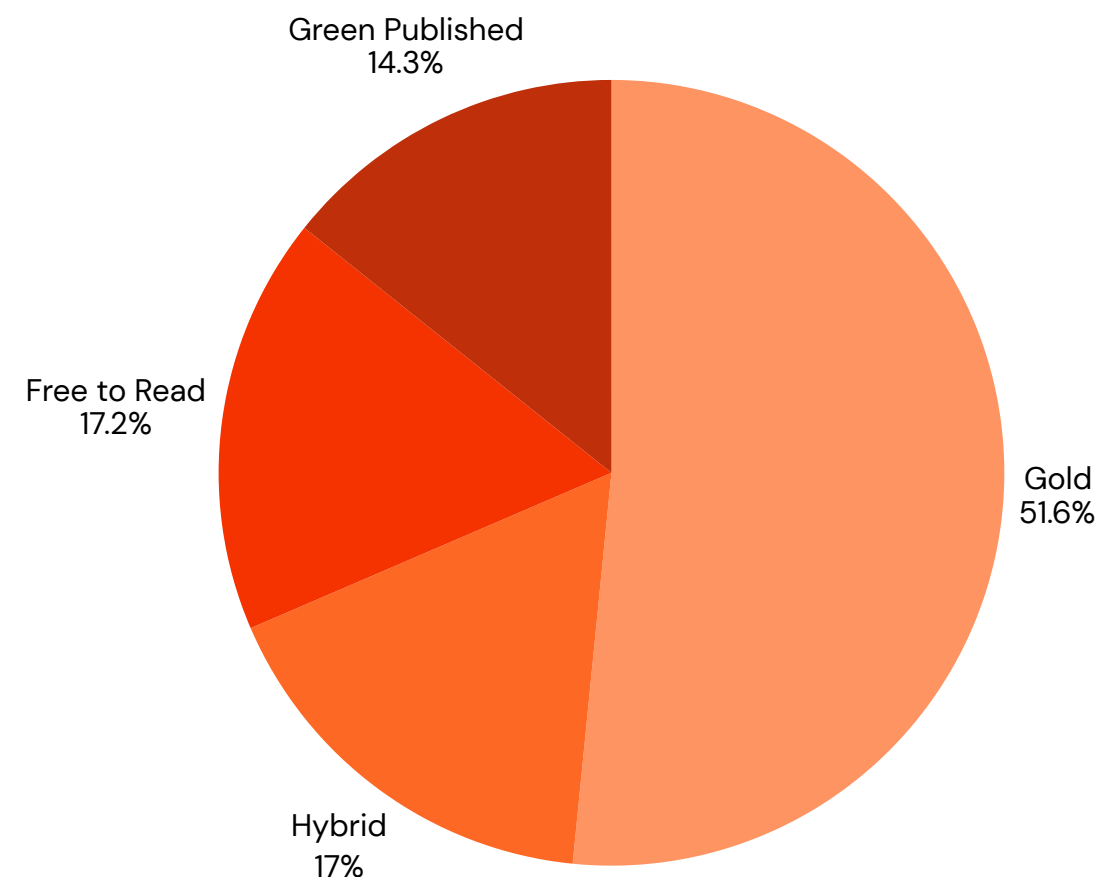


- In 2021, IIT Delhi produced the highest number of SDG-related publications (1,412; 12.4%), while 2022 recorded the most SDG-linked Open Access papers (369; 15.3%).
- The trendline follows a pattern similar to that of the overall publications.

# Yearly Trends of SDG-Linked Publications at IIT Delhi



# Documents Share by Open Access (OA) Type



- The Gold Open Access type has the largest share both in the overall output and among SDG-linked OA publications.
- This indicates a strong preference for publishing in fully open and peer-reviewed journals.

# Top 3 SDGs in OA

## Goal 3: Good Health and Well-Being

- Total publications: 4,502
- Open Access (OA) papers: 1,264

## Goal 7: Affordable and Clean Energy

- Total publications: 3,122
- Open Access (OA) papers: 428

## Goal 13: Climate action

- Total publications: 1,521
- Open Access (OA) papers: 402



## Goal 3: Good health and well-being

Goal 3 – Good Health and Well-Being leads as the most researched area due to its broad scope across medical technology, public health, and biomedical engineering—fields where IIT Delhi has strong expertise. The post-pandemic research focus and increased global attention on health innovation further boosted publications under this goal.



## Goal 7: Affordable and clean energy

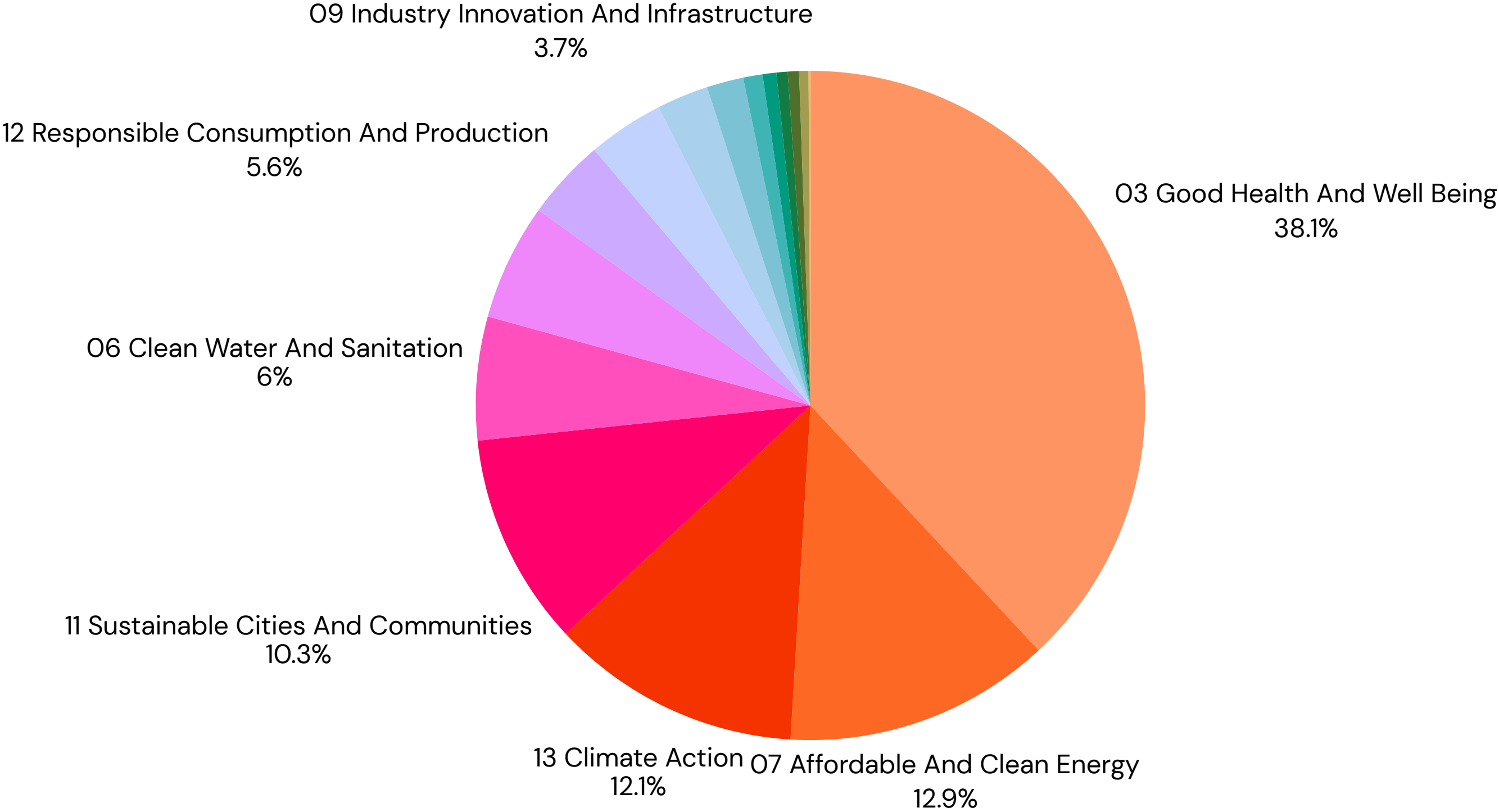
Goal 7 – Affordable and Clean Energy ranks second, reflecting IIT Delhi's strong research focus on renewable energy, sustainable technologies, and energy efficiency. Active work in solar energy, battery storage, and green hydrogen has significantly contributed to its high publication count.



## Goal 13: Climate action

Goal 13 – Climate Action ranks third, highlighting IIT Delhi's growing engagement in environmental and climate research. Studies on climate modelling, mitigation strategies, and sustainable urban planning have driven this strong representation.

# Share of SDGs in OA



# Discussion & Future Directions

The analysis of IIT Delhi's publications (2015–2025) shows strong engagement with Open Access (OA) publishing and SDG-aligned research. About one-fifth of its output is openly accessible, with over half of these addressing SDG themes, reflecting growing awareness of open science and its role in enhancing research visibility and societal impact.

01

## Broader Interdisciplinary Integration

Encourage inclusion of sustainability themes across diverse research disciplines.

02

## Institutional SDG Mapping

Implement SDG mapping within research strategies to identify emerging strengths and growth areas.

03

## Inclusive and Collaborative Research

Promote cross-disciplinary and multi-stakeholder collaborations for greater societal impact.

04

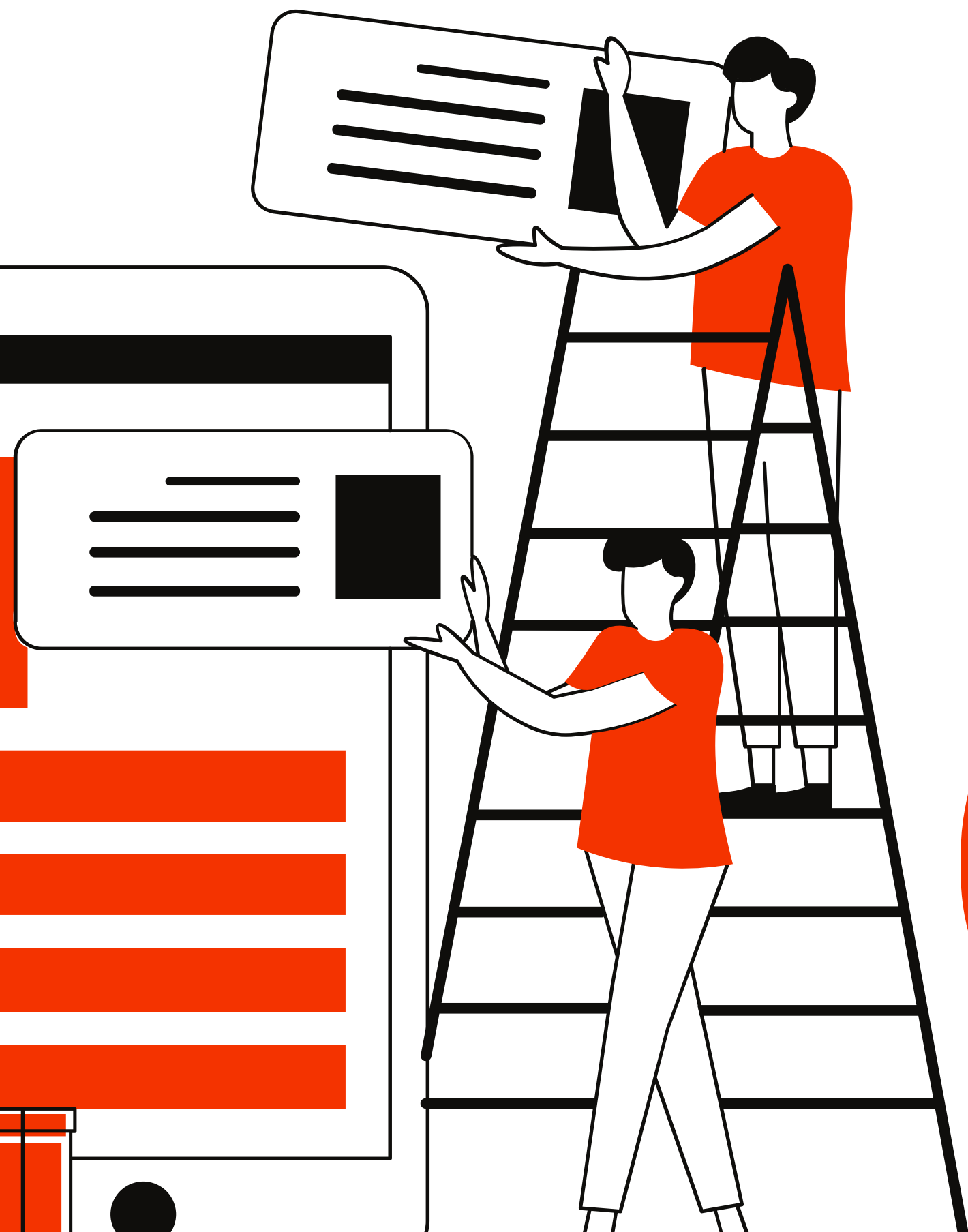
## Strengthening OA Practices

Continue expanding open access publishing to support transparency, accessibility, and global knowledge sharing.

# Acknowledgements

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# Thank You

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