Enhancing Data Management through the SDMX standard

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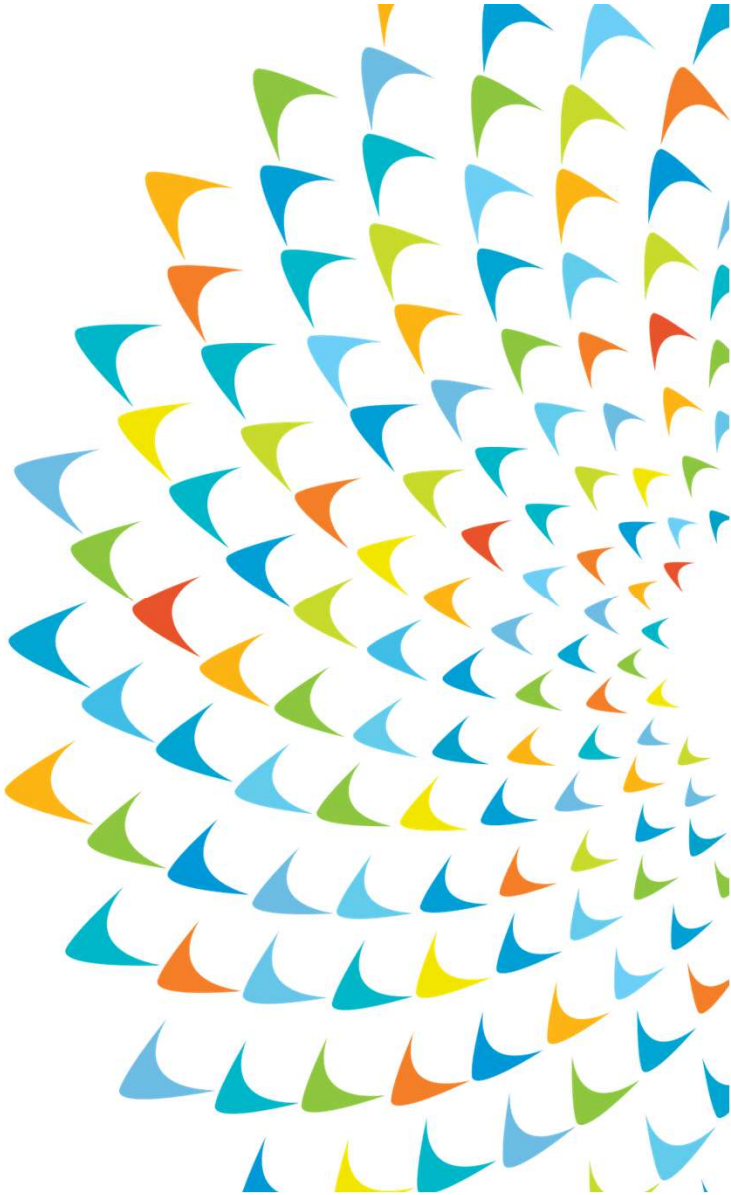
ADB



ADBs Knowledge Support on SDMX

Since 2018, the Asian Development Bank (ADB) has been supporting selected developing member economies in Asia and the Pacific in adopting SDMX within their national statistical systems.

- ✓ These projects focus on producing high-quality statistical information using modern technology, innovative data, advanced methodologies, and best practices, with a particular emphasis on enhancing capacity in implementing SDMX.
- ✓ This also includes development of eLearning courses: SDMX Foundation Course and SDMX Tools Course
- ✓ This year's special supplement to ADBs statistical flagship publication *Key Indicators for Asia and the Pacific* highlights the benefits of adopting the SDMX standard by highlighting the outcomes of these projects.

Key Indicators 2024 Special Supplement

Enhancing Data Management Through the Statistical Data and Metadata eXchange Standard

- ✓ The publication was launched on 22 August 2024.
- ✓ The report illustrates how developing economies adopting the SDMX standard can benefit from enhanced efficiency in data collection, production, and exchange.
- ✓ In addition to the advantages of adopting the SDMX, the report presents the results of ADBs technical assistance projects which were launched in 2018 to promote the adoption of the SDMX standard.
- ✓ Publication link: https://www.adb.org/publications/statistical-data-metadata-exchange-standard

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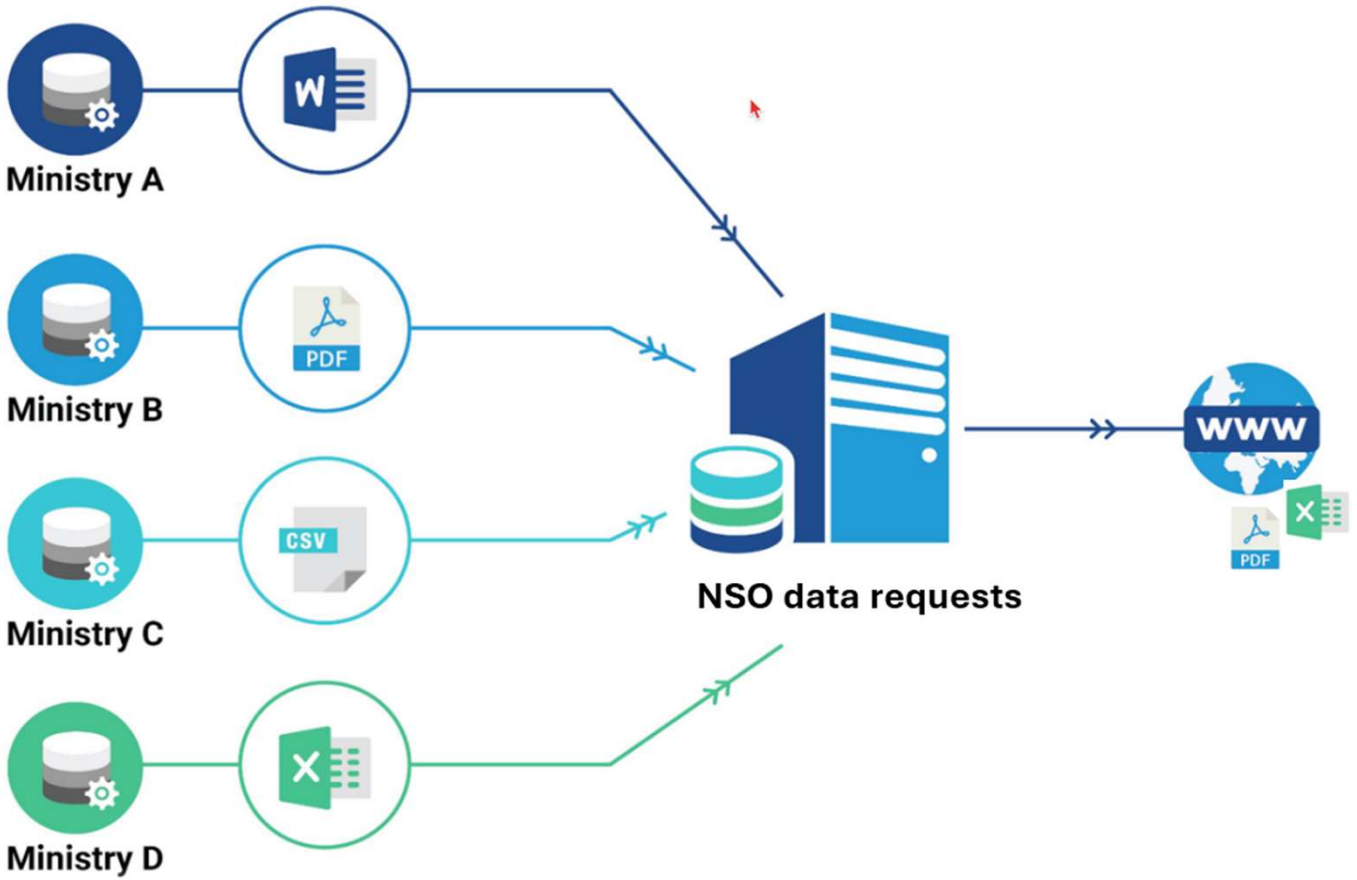
Common Data Production Workflows



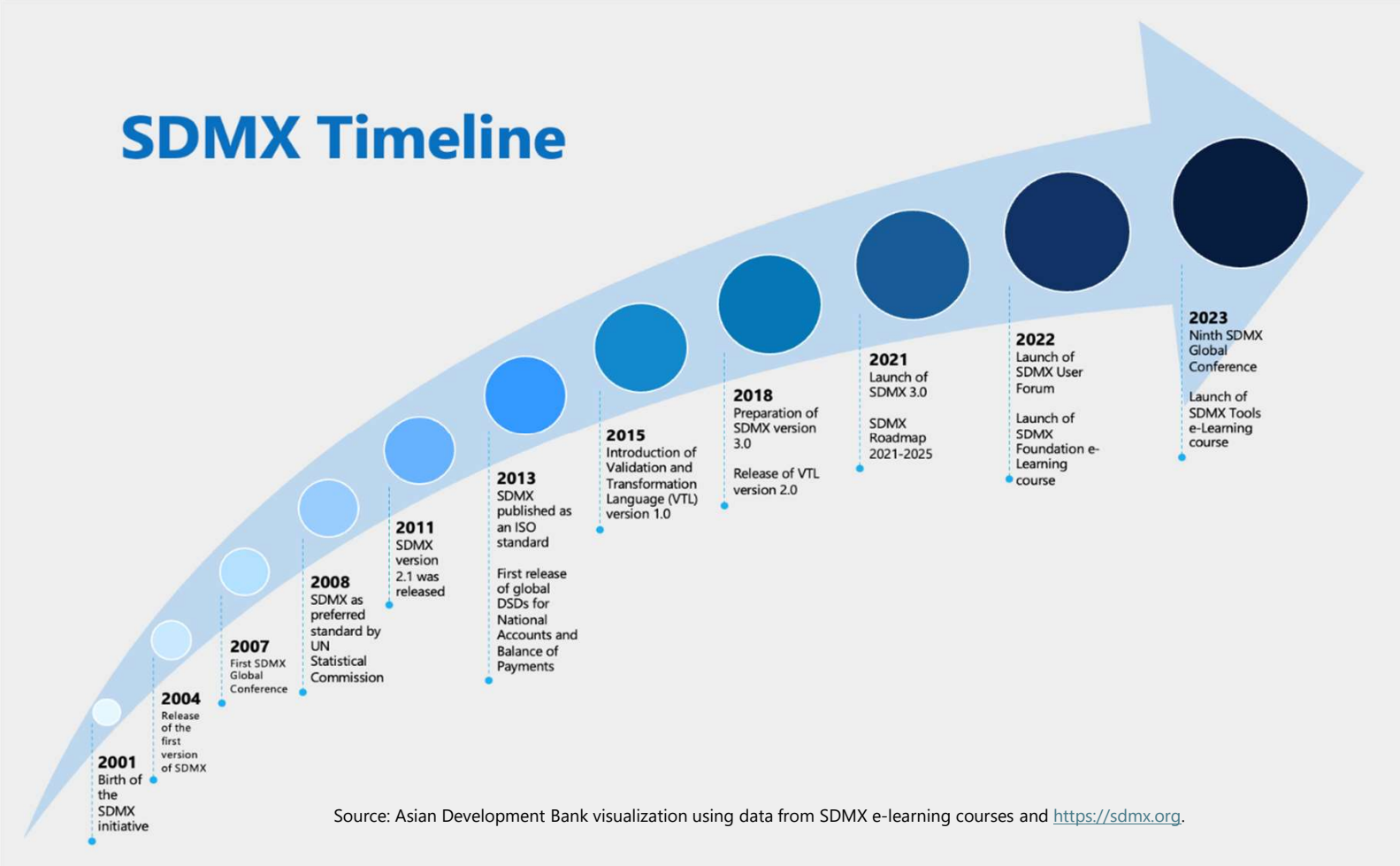
National Statistical Systems – key challenges

Obstacles faced in collecting, integrating, and disseminating statistical data:

- ensuring data quality,
- addressing resource limitations,
- navigating legal and ethical considerations, and
- adopting modern technology.

Overcoming these challenges is crucial for producing reliable statistical information to inform decision-making and policy formulation.

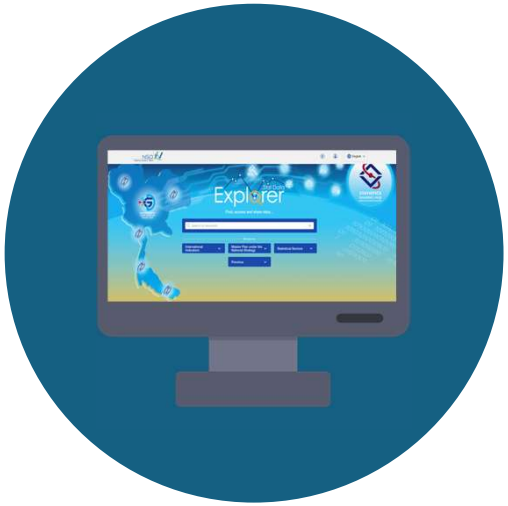
Key Milestone for SDMX



Source: Asian Development Bank visualization using data from SDMX e-learning courses and https://sdmx.org.

ADB Technical Assistance Project – outputs & outcomes

TECHNICAL ASSISTANCE



Source: Asian Development Bank visualization using image from TNSO Statistics Sharing Hub.

ADB Economy Support for SDMX

NEEDS ASSESSMENT

Source: Asian Development Bank visualization.

ADB ECONOMY ASSESSMENT SURVEY

CAPACITY DEVELOPMENT

Source: Asian Development Bank visualization.

ADB SDMX E-LEARNING COURSES

ADB's Economy Support for SDMX

National Statistics Offices (NSOs) supported by ADB in their SDMX implementation efforts:

National Statistical Office of Thailand (TNSO)

Samoa Bureau of Statistics (SBS)

National Statistics Bureau of Bhutan (NBS)

Statistics Sharing Hub by National Statistical Office of Thailand (TNSO)

- TNSO has taken the initiative to establish a robust, modern platform to serve as a centralized hub for data dissemination compliant with SDMX standard and practices.

- The Statistics Sharing Hub houses a diverse range of indicators, including national and international data for SDGs, socio-economic data, population statistics, and more. Link: https://stathub.nso.go.th/?lc=en&pg=0

- The hub is equipped with advanced features, allowing users to easily generate and customize tables and charts, utilize download functions, and build queries using the SDMX API.

- ADB provided support and assistance to TNSO in their efforts to implement SDMX standard in their national statistical system.

Source: Asian Development Bank visualization using image from TNSO Statistics Sharing Hub.

ADB Economy Assessment Survey of National Statistics Offices (NSOs)

Overview of the Survey

- Key objectives:
  - assess the level of awareness and integration of the SDMX standard within their national statistical system
  - identify the NSOs specific priorities and requirements for implementing SDMX

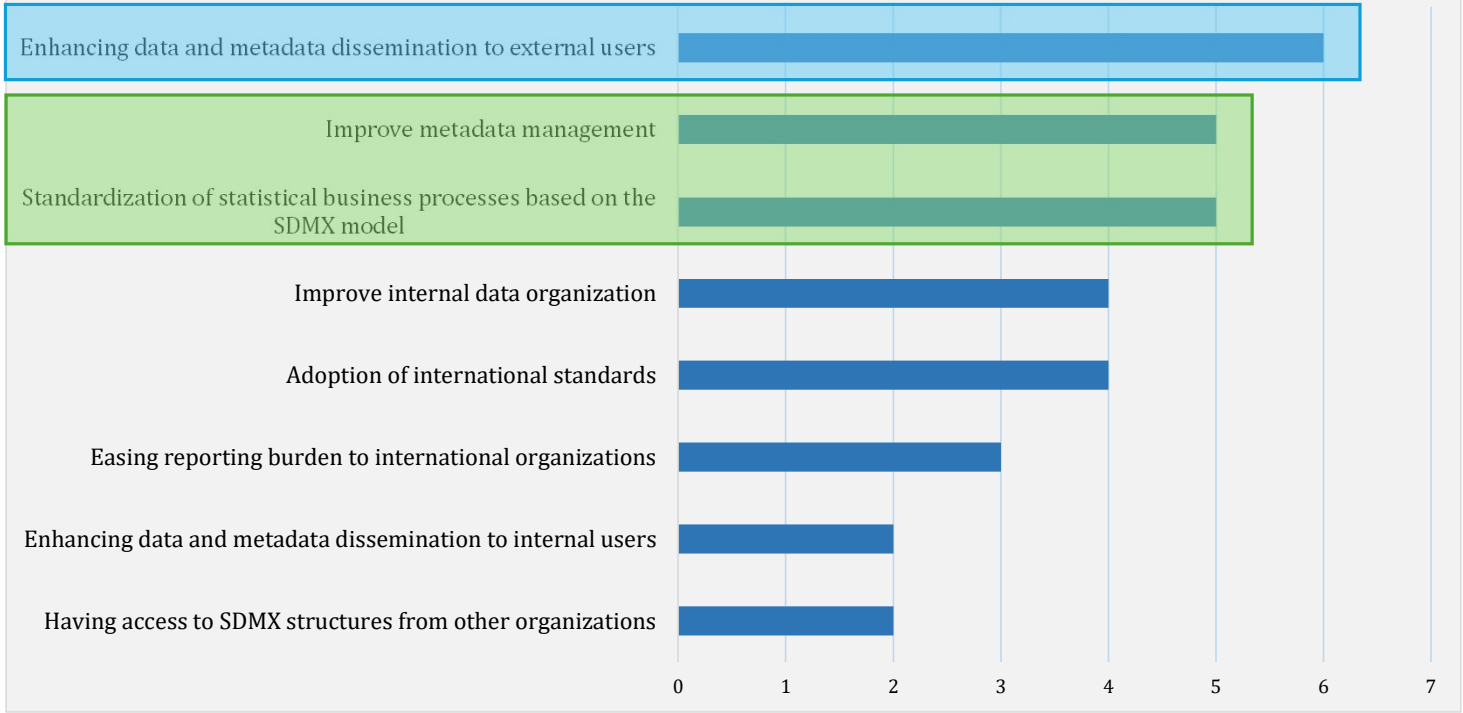
- 31 out of 49 ADB regional member economies participated in the survey which ran from 31 May to 9 July 2021

- The survey results provide a comprehensive understanding of:
  - NSOs interest in using SDMX
  - Areas of focus in SDMX implementation
  - Perceived benefits of adopting SDMX
  - Challenges faced in the adoption of SDMX

Source: Asian Development Bank visualization.

Enhancing data and metadata dissemination to external users was identified as the top benefit of SDMX

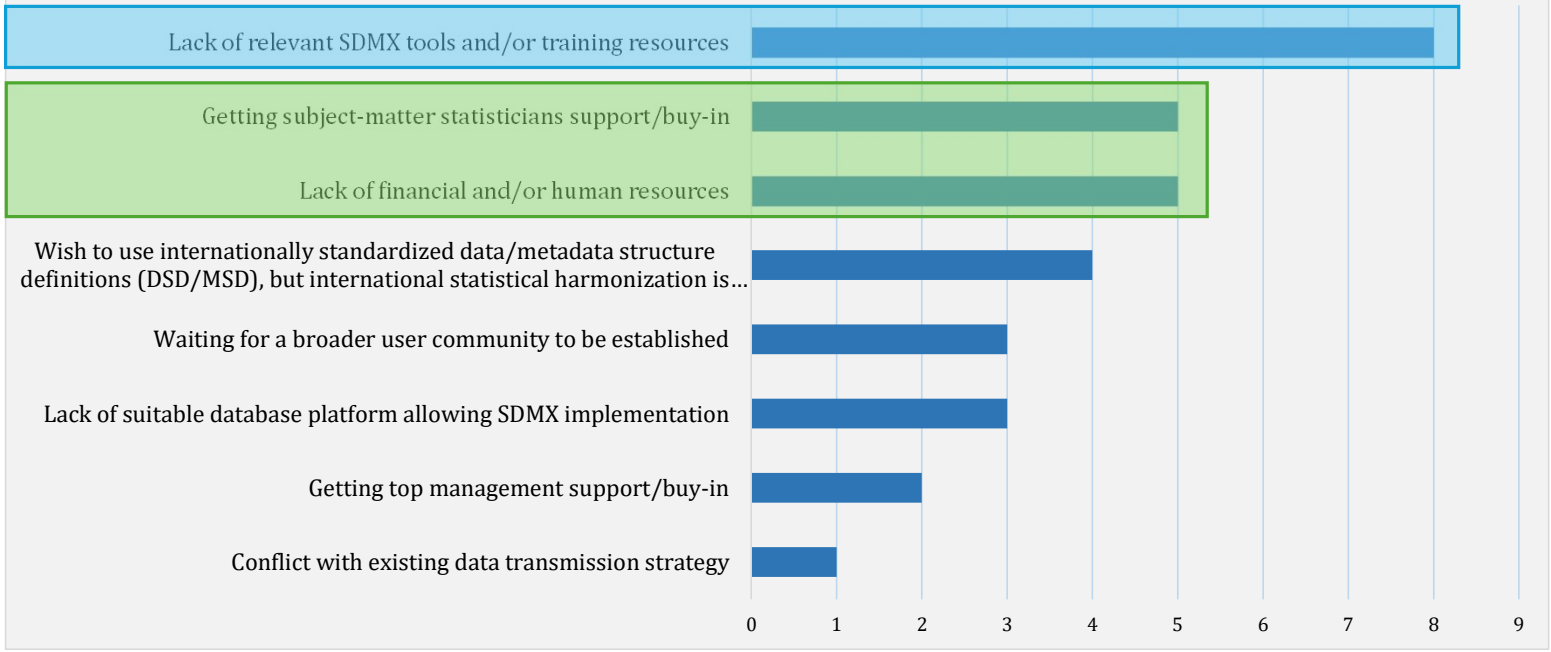
Figure 15: Perceived Benefits of Statistical Data and Metadata eXchange



Source: Asian Development Bank estimates based on the results of the 2021 Statistical Data and Metadata eXchange economy assessment survey.

Lack of relevant tools and training resources ranked highest

Figure 16: Perceived Challenges in Implementing Statistical Data and Metadata eXchange



Source: Asian Development Bank estimates based on the results of the 2021 Statistical Data and Metadata eXchange economy assessment survey.

Overview of ADB SDMX e-Learning Courses

- Results from the ADB economy assessment survey played a key part in the development of capacity-building resources for SDMX

- To address the lack of relevant training tools, ADB collaborated with UNSD, ESCAP, and the SIAP to develop and conduct e-learning training programs.

- These programs are tailored to different levels of expertise, with participants able to undertake either or both of:
  - ✓ the SDMX Foundation Course
  - ✓ the SDMX Tools Course

Source: Asian Development Bank visualization using image from SDMX Foundation Course.

Source: Asian Development Bank visualization using image from SDMX Tools Course.

SDMX Foundation e-Learning Course

Collaborative work with UNSD, ESCAP, and SIAP and peer-reviewed by the SDMX Secretariat:

- ✓ Launched from 27 March to 6 May 2022
- ✓ Re-opened since 13 February 2023
- ✓ A total of 637 certified learners have participated and passed the course
- ✓ Target participants: managers, statisticians, IT-experts
- ✓ The course includes the rationale and benefits of SDMX, provides an overview on the SDMX Information Model, Content-Oriented Guidelines, and SDMX Architecture and IT Tools.
- ✓ Course link: https://elearn.adb.org/course/view.php?id=486

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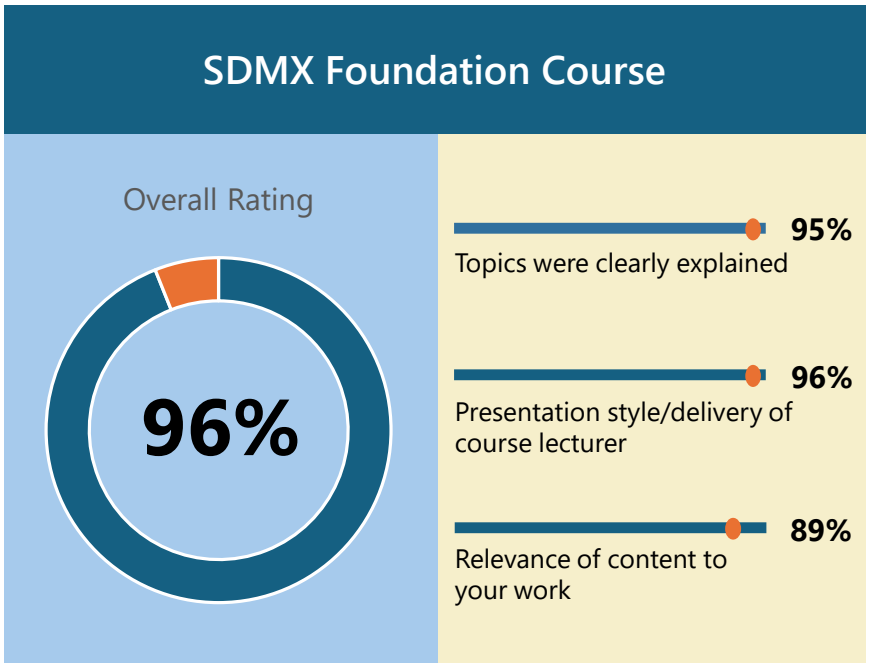
SDMX Tools e-Learning Cours

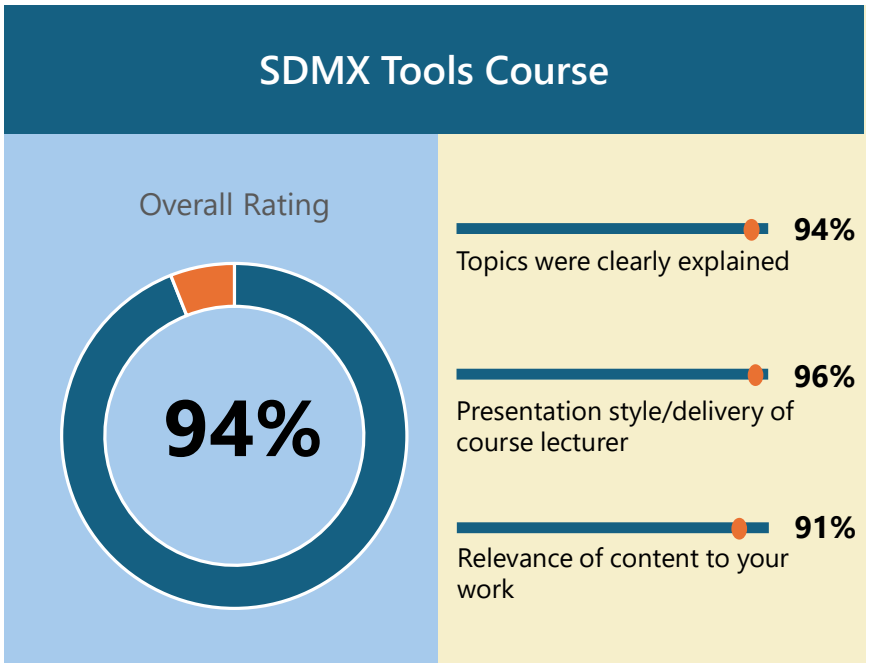
Collaborative work with UNSD, ESCAP, and SIAP and valuable inputs received from BIS and ILO:

- ✓ Launched from 15 November to 22 December 2023
- ✓ Re-opened since 15 July 2024
- ✓ A total of 72 certified learners have participated and passed the course
- ✓ Target participants: statisticians, IT-experts, and data producers
- ✓ The course offers an overview of SDMX tools and their use cases, with in-depth discussions on selected tools: SDMX Constructor, Fusion Metadata Registry, and SDMX Converter.
- ✓ Course link: https://elearn.adb.org/course/view.php?id=520

Evaluation of the SDMX e-Learning Courses



Source: Asian Development Bank visualization based on results of the SDMX Foundation Course.



Source: Asian Development Bank visualization based on results of the SDMX Tools Course.

Note: The numbers reflect the percentages of excellent or good rating.

Asian Impact Webinar on SDMX

To register, please visit this link:
https://asianimpact.adb.org
or
scan the QR code

Statistical Data and Metadata eXchange for Enhanced Data Management

- ✓ Discusses the advantages of adopting the SDMX standard, highlights key findings, and outlines ADB's role in promoting SDMX in the region.
- ✓ A panel of experts from Thailand's NSO, ESCAP, and the Pacific Community (SPC) will share insights on their experiences in implementing SDMX.
- ✓ **12 September 2024, 9:00 to 10:00 AM, Manila time (GMT +8)**
- ✓ For details, visit this link: https://www.adb.org/news/events/statistical-data-metadata-exchange-enhanced-data-management-live-webinar

Conclusion

- SDMX is an enabler for innovation and operation efficiency
- There is strong regional and global demand to implement SDMX
- Challenges such as the need for upskilling and demand for open-source tools are acknowledged. To address this need:
  - ✓ Online e-learning courses are an effective upskilling strategy
  - ✓ Initiatives by ADB and others in the global SDMX community are closing the knowledge gap
- ADBs Data Division envisions setting-up a new technical assistance project in 2025 to support selected developing member economies in Asia and the Pacific on SDMX adoption. ADB is open to collaborate with development partners and NSOs in Asia and the Pacific interested in adopting SDMX into their national statistical system.
- Additional resources :
  - SDMX Foundation Course: https://elearn.adb.org/enrol/index.php?id=486
  - SDMX Tools Course: https://elearn.adb.org/enrol/index.php?id=520
  - Report on SDMX: https://www.adb.org/publications/statistical-data-metadata-exchange-standard
  - Asian Impact Webinar on SDMX: https://www.adb.org/news/events/statistical-data-metadata-exchange-enhanced-data-management-live-webinar

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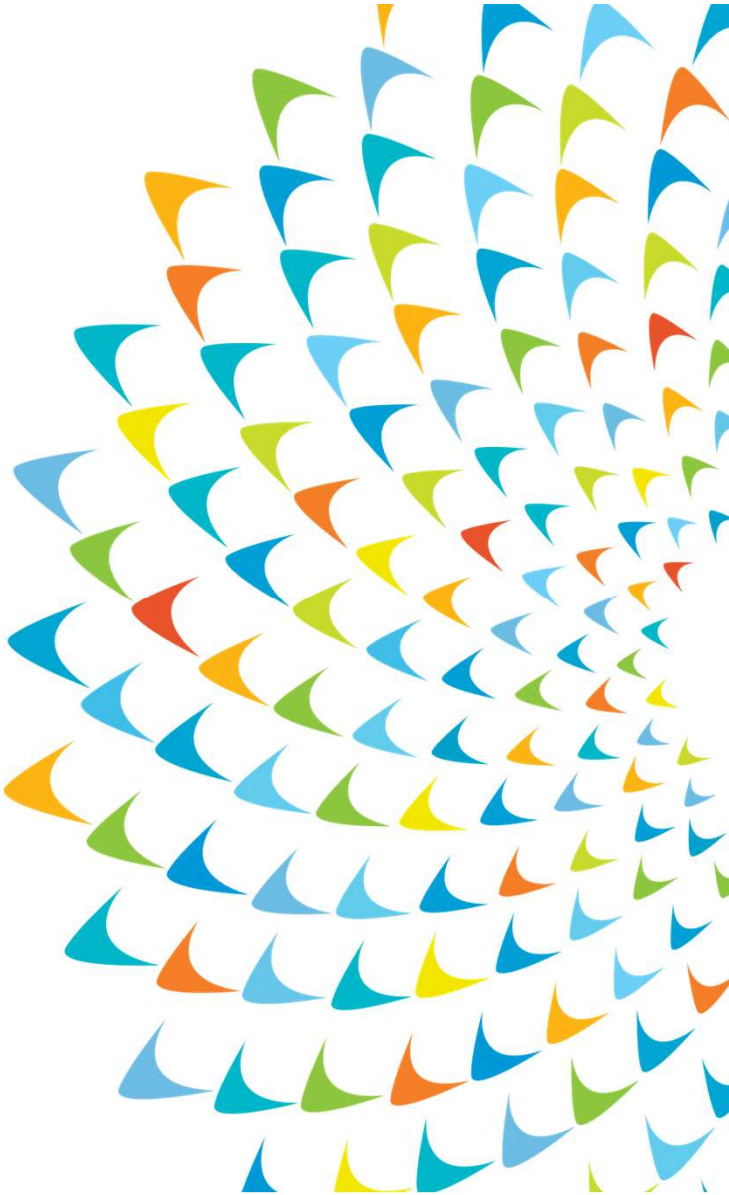
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