

# IT Strategy Draft Mission Output 1.4.1 DoS IT, Twinning Project STE's Niels Jespersen & Esben Holdt

# **Mission Output**

Recommendations

- Joint work by DoS IT staff and Twinning Project STE's
- Current situation as starting point
- Further refinement needed

**Transformation Maps** 

- Timeline 2023-2026
- Six areas identified, four transformation maps populated during this mission
- Dissemination and Information Security assigned to subsequent missions









STATISTICS



Istat



#### Infrastructure





S Statistics Lithuania



TWINNING

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# **Draft Recommendations**



#### Introduction



- The mission has in collaboration created a draft IT Strategy for DoS. The work
  has been done with the vision of DoS as a National Statistics Center as the final
  goal while taking the current situation as its starting point. The IT Strategy
  describes the steps needed to fulfil the final goal,
- It must be emphasized that the strategy is not a detailed work plan and that the activities in the strategy need further refinement to be detailed enough for actual implementation.



# Recommendations



- A major recommendation in the strategy is to modernize statistical production by standardizing and centralizing both data processing and data storage. This should be done by establishing a Data Management Center (DMC) that separates end user desktops from data storage and processing. The DMC is described in more detail later,
- Establishing the necessary IT environment for carrying out the Census-2025 will be a major effort in coming years. It is vital that IT finds the right balance between establishing IT for the Census and carrying out the other important tasks in the daily operation and implementing strategic changes,
- Another important recommendation is that a platform needs to be implemented supporting collaboration and knowledge sharing. This platform should be part of the Data Management Center.



# Recommendations



- A common concern across all main areas, including Census-2025, is the transition to use services in MoDEE instead of establishing infrastructure and services inside DoS. In general, DoS should prepare the organization to manage the IT-environment using services inside MoDEE. This includes
  - Getting a good working relationship with the MoDEE organization as a service provider,
  - Testing the different relevant services that MoDEE provide thoroughly before fully migrating to these services,
  - Getting formal agreements with MoDEE for the use of services and service levels delivered.



# Recommendations



- DoS should standardize on producing statistics using Python and R as the main tools, also on the business side. The tools should be made available in the DMC. Data should be stored and processed inside databases, not in files,
- Consult DESTATIS or other consortium member states with recent experience in doing a combined census for further advice on the Census-2025 issues,
- Ensure that the data collection platform developed for the Census-2025 will be cross-platform and supplemented by resources for DoS in-house IT development capacity building to warrant sustained outcomes also in other areas of work,
- As the the Census-2025 schedule is rigorously packed and further action depends on approval, care should be taken to ensure imminent senior management assent to the IT Strategy process to enable further DoS elaboration and refinement, followed by implementation and detailed action plans along with sufficient resource allocation.





# **Draft Transformation Maps**



#### Infrastructure



SERVICES	2023 Clarify MoDEE access to data from non- government sources MoDEE data	MoDEE servers and storage	2025 MoDEE migration from in-house DoS infrastructure	<b>2026</b> Modernization of StatBank using MoDEE infrastructure	A modern data supporting the DoS of being a N Statistics	s vision lational
	standardizat Oracle an PostgreSC	tion: d QL ssess state of cabling nd fixed installations on-site	Upgrade internet access capacity Carry out tender for network appliances: - Switches - Security appliances	produc	ate statistics action to Data gement Center	
DOS NETWORK			workplac and soft and b	lize desktop e hardware ware for IT ousiness	ion of istrative s Consider remote a government offic Consider remote access for DoS employee	rized cials s needs es
			DESKTOP WORKPL	ACE	MOBILE WORKPLACI	Ξ
đ.,	Delegation of the European Union to Jordan	Attaciji Agija er of Satiritis	Bundesamt Distat Stat	atistics thuania		

#### **Data Flow**



YSTEM		2024 Find solution for data tion transfer from endpoints	2025	2026		Data flow to support modernized statistics production
SURVEYS SYSTEM TO SYSTEM	for data integrity issu stemming from MQ d outages		platforn consider fi adminis (Cas em	te standard survey in such as BLAISE, eld work planning and tration functionality e Management) Tools migratic SPPS/STATA Python with databas Move data from local datasets to central	to R and data in	Consider IT capacities for new dissemination products, i.e. dashboards, info graphics, or interactive web content Evaluate Tau Argus method and tools for disclosure minimization
SU				databases		Identify potential disclosure issues on aggregated output
		STAT	ISTICS PRO	ODUCTION		DISSEMINATION
	Delegation of the European Union to Jordan	Las pl égits Cer Statistics DENMARK DELSTATIS Statistisches Bundesamt	Istat	Statistics Lithuania		

### **Data Management**

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# Data Management Center (DMC)





- The DMC centralizes data, statistical tools and computing power
- Security is heightened, because data is not directly accessible from desktop pcs.
- Data cannot be copied from the DMC to desktop pc's, ensuring that statistical production is not dependent on a single desktop
- Statisticians connect to a workplace inside the DMC using remote desktop
- Data Science work can take place alongside statistical production
- Tools standardized on SQL, R, Python
- Enough computing power (CPU, RAM) for all production processes.

Delegation of the European Union to Jordan







#### Modern toolbox







#### Census-2025



data Frame		2024 Clarify the potential National ID with bus Prepare GIS data with potential new satellite imagery for field work		2026	Capacity to carry out Census-2025 according to requirements while ensuring sustained outcomes for DoS
FIELD WORK D		Procure and prepare tablet devices. Lead time 18 months. Decide on tablet software development in-house vs outsourced with parallel knowledge transfer		Ensure data sustainabi in newly created statisti registers enabling futu use Line up purchase/reuse/MoDEE options for backend assets	ical
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# **Information Security**





# Dissemination



