

# **DanubeSediment**

## **Danube Sediment Management**

### **- Restoration of the Sediment Balance in the Danube River**

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- Project title:  
Danube Sediment Management - Restoration of the Sediment Balance in the Danube River (DanubeSediment)
- Project duration: 01/2017-06/2019 (30 months)
- Programme: Danube Transnational Programme
  - Programme Priority:  
PA2. Environment and culture responsible Danube region
  - Programme Specific Objective:  
SO2.1 Strengthen transnational water management and flood risk prevention
- Project Budget: 3.56M EUR
- 14 Project Partners (Germany, Austria, Slovakia, Hungary, Croatia, Slovenia, Serbia, Bulgaria, Romania)
- 14 ASPs
- Main project outputs: Danube Sediment Management Guidance, Sediment Manual for Stakeholders

- Increasing discrepancy between surplus and deficit of sediment
  - increases flood risk
  - reduces navigation possibilities
  - reduces hydropower production
  - deteriorates the ecological conditions
  - decreases the ground water level
- According to the Danube River Basin Management Plans (2009 and 2015) it is not clear if the **sediment management is a significant water management issue or not**, since no such management strategy exists
- Sediment transport along the Danube River has an immediate impact on water management activities and flood risk and there is a strong need to bridge the knowledge gap

- Driving forces and impacts – Danube River Basin

⇒ Hydropower plants

⇒ Flood protection

⇒ Navigation

⇒ Climate change

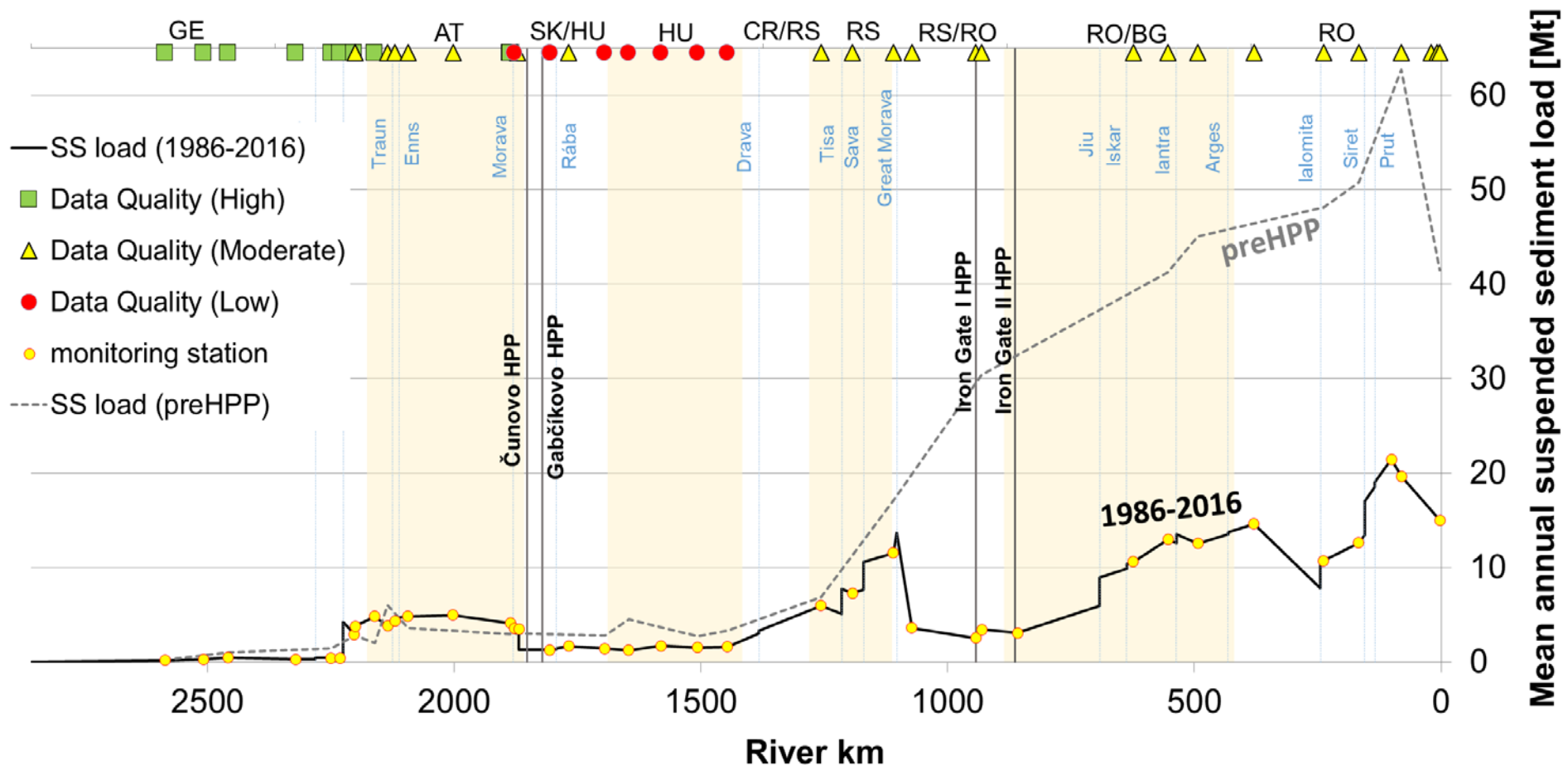
⇒ Changes in land use

⇒ Point and diffuse source pollution

- Reveal all available **sediment data** for the Danube and the major selected tributaries at the confluence
- Permanent interaction with the data owner stakeholders (water directorates, private companies, Project Partners)
- Limited sediment transport **monitoring** at short reaches with significant data gaps
- **Comparative analysis** and intercalibration of different sediment monitoring techniques
- **Recommendations** for the good practices of sediment **monitoring techniques**
- Training of sediment experts on an international workshop

# Longitudinal variation of mean annual SS load (1986-2016) vs. preHPP

## Longitudinal variation of mean annual suspended sediment load (1986-2016) vs. preHPP period



- Establish a sediment budget for the Danube River and selected tributaries, which implies quantification of the downstream fluxes of sediments through the Danube and **identification of surpluses and deficits**
- This also includes **redistribution of sediments** within various spatial and temporal units considering barriers (dams, HPP, etc.) and modifications (groyne fields) for sediment continuity; taking into further relevant interventions (dredging/dumping/feeding)

# WP5 Impact and measures: Objectives

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- To **introduce potential measures** for establishing a dynamic, sustainable sediment continuity to improve the sediment management in the Danube River
- To **review the key drivers** and to **perform an impact assessment** of significant hydromorphological alterations
- To **perform a risk analysis** on sediment regime



# WP6 Danube Sediment Management

## Guidance: Objectives

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- **Formulation of guiding principles** on sediment management for hydropower, navigation, river basin management (incl. ecology) and flood risk management, also relevant and available for other sectors e.g. agriculture, drinking water supply and dredging.
- **Integration of key findings** of WP 3-5, leading to effective sediment management measures
- Outcomes form a **key input** to the **Danube River Basin Management Plan** and the **Danube River Flood Risk Management Plan**
- **Delivering a sound basis** for answering sediment related questions and sustainable sediment management measures for the future work

## Thank you for your attention!

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- Please check our project video:
- <http://www.interreg-danube.eu/news-and-events/project-news/3734>