

Towards a Circular Economy through Sustainable Management of Wastewater and Reuse

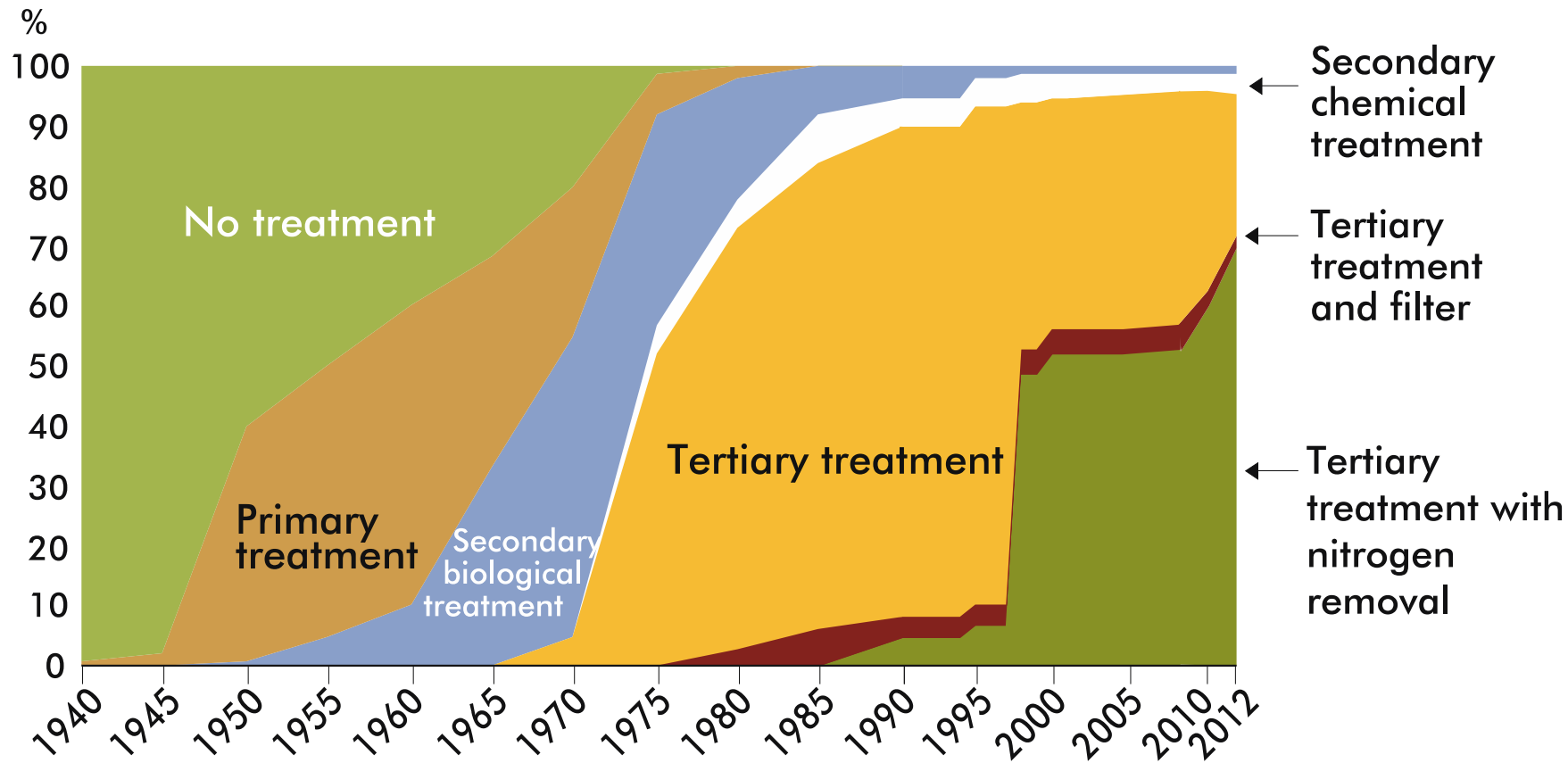
Best practices from Sweden on sustainable wastewater management

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A brief history of Swedish wastewater

treatment



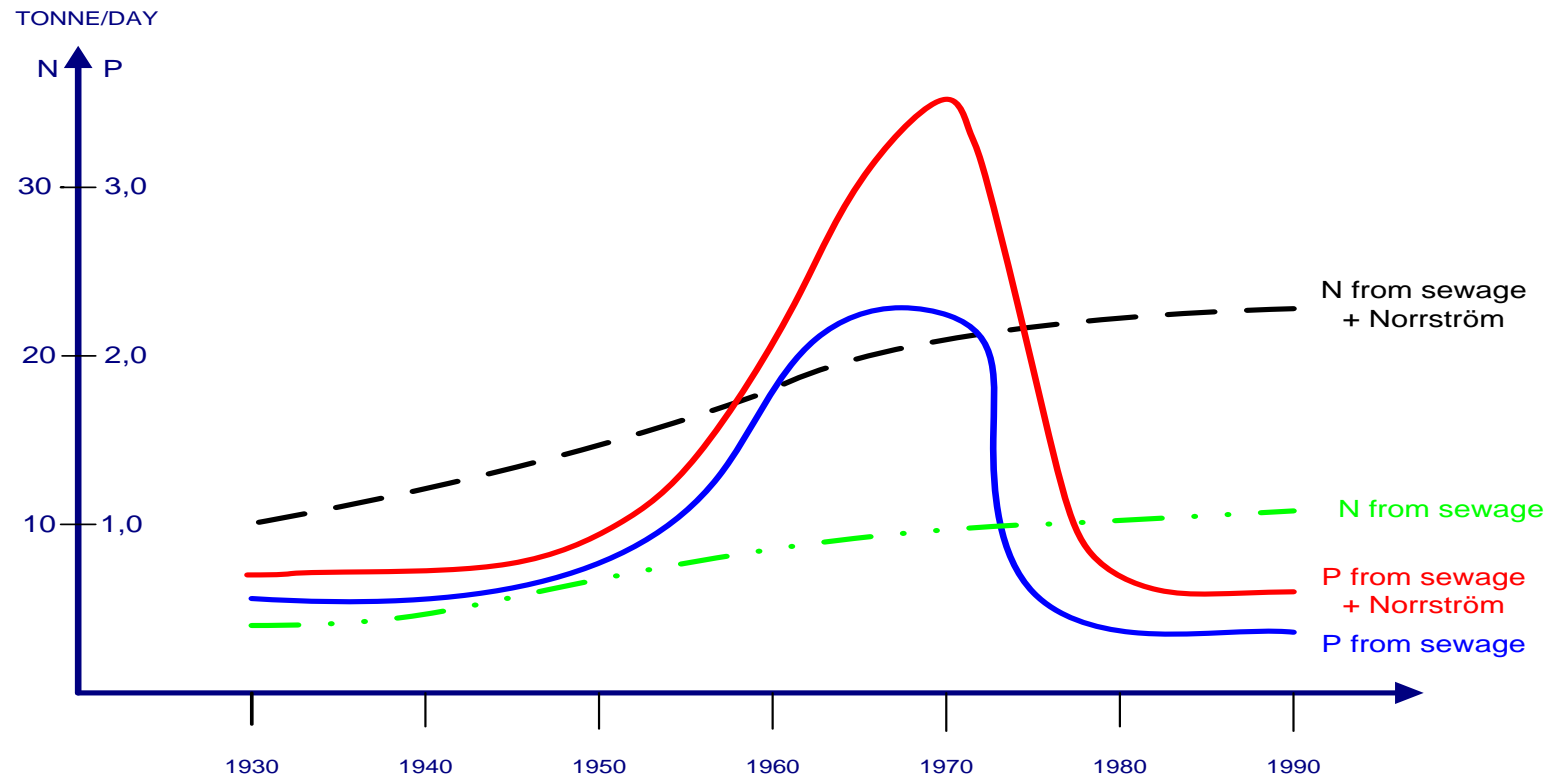
Adapted from Swedish EPA, *Rening av avloppsvatten i Sverige (Wastewater Treatment in Sweden)*, 2014

Legal framework in Sweden

- Environmental Code (1999)
- EU Water Framework Directive (2000) and related directives
- Swedish environmental goals
- Function and performance focus
- Reuse guideline from Swedish EPA for on-site systems EPA (2008)
- Certification standards
- Soon: tax on households with poorly performing on-site systems

A significant Reduction in P Load due to new Treatment: eg Stockholm & basin

The total external load of phosphorus [P] and nitrogen [N] on the inner archipelago



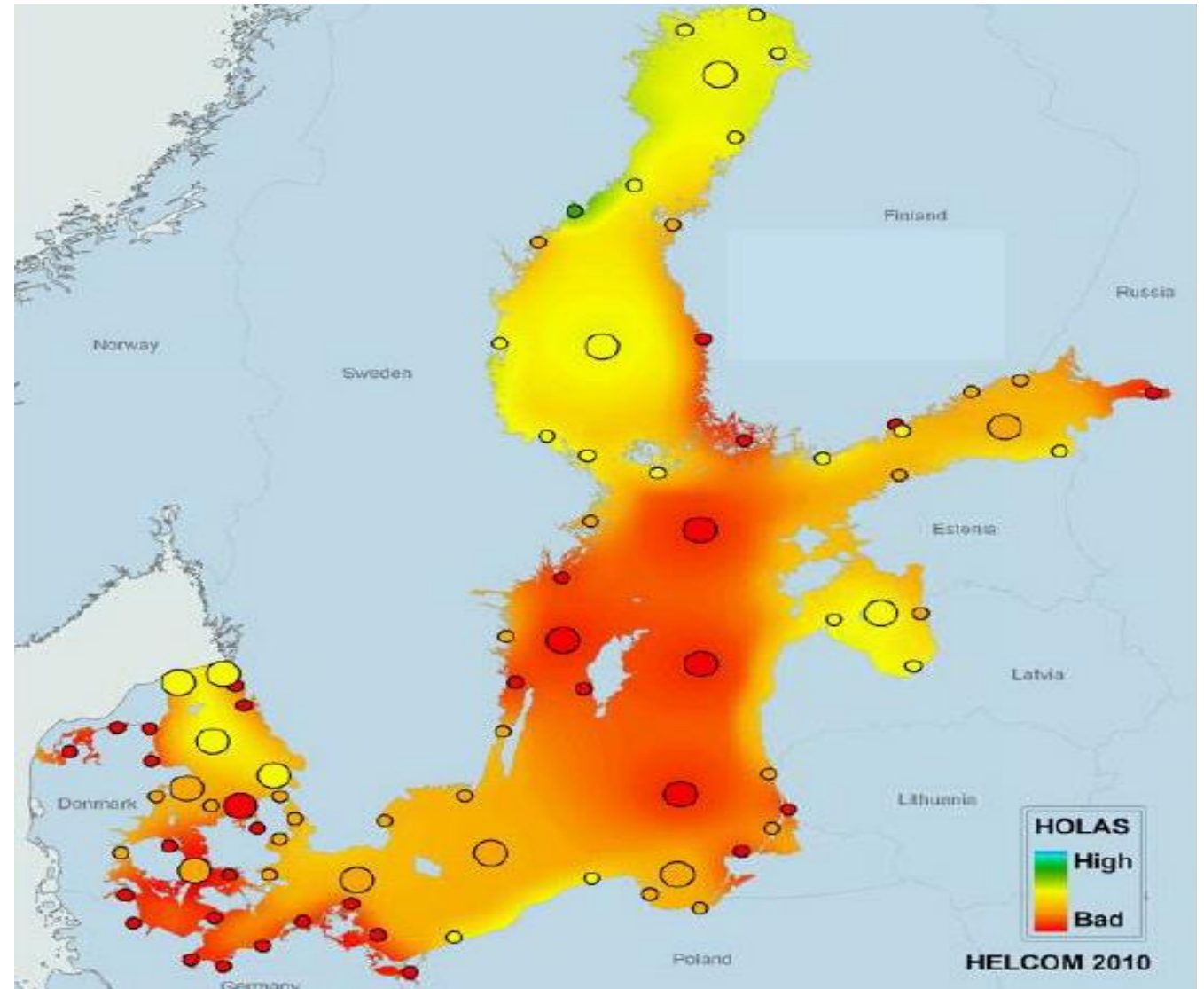
But...the status of the open Baltic Sea 2010

HELCOM Holistic Assessment

- Country data 2003 – 2007
- Biodiversity
- Hazardous substances
- Eutrophication

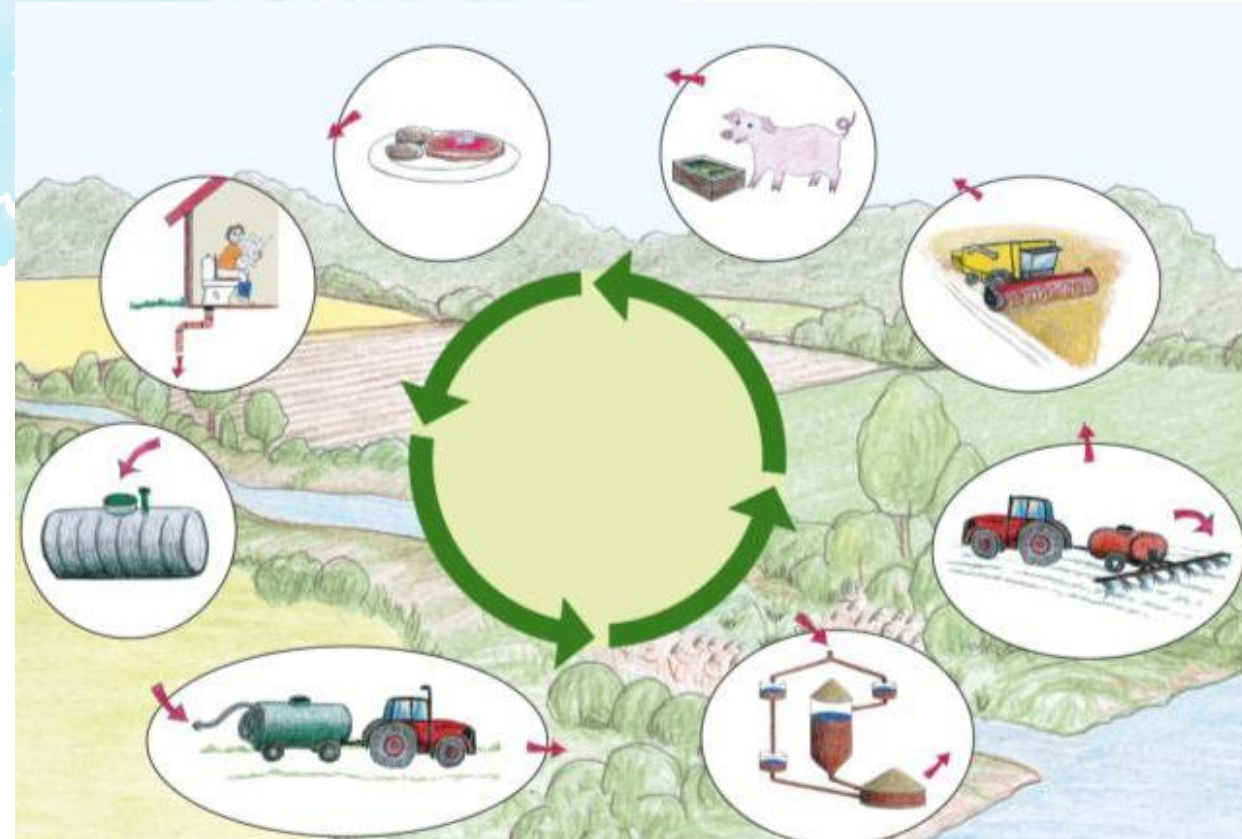
”None of the open basins of the Baltic Sea has an acceptable ecosystem health status”

- In spite of major efforts to address point source pollution & other measures



Case study: decentralized wastewater management in Södertälje Municipality

- 500 households not connected to municipal treatment system
- Decentralized plant operated by local farmer
- Produces certified liquid fertilizer
- More cost-effective solution than sewer network expansion



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Keys to success?

- Increasing awareness
- Enabling environment
- Highlight multiple societal benefits
- Cross-sectoral collaboration
- Support to innovation and eco-technologies
- Identify linkages, system thinking: SDGs and source-to-sea (GEF 50th council)

