

# SUBSOL

**Bringing coastal Subsurface Water Solutions to the market**

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# Freshwater supply in coastal NL

1900s



○ Marken 1923

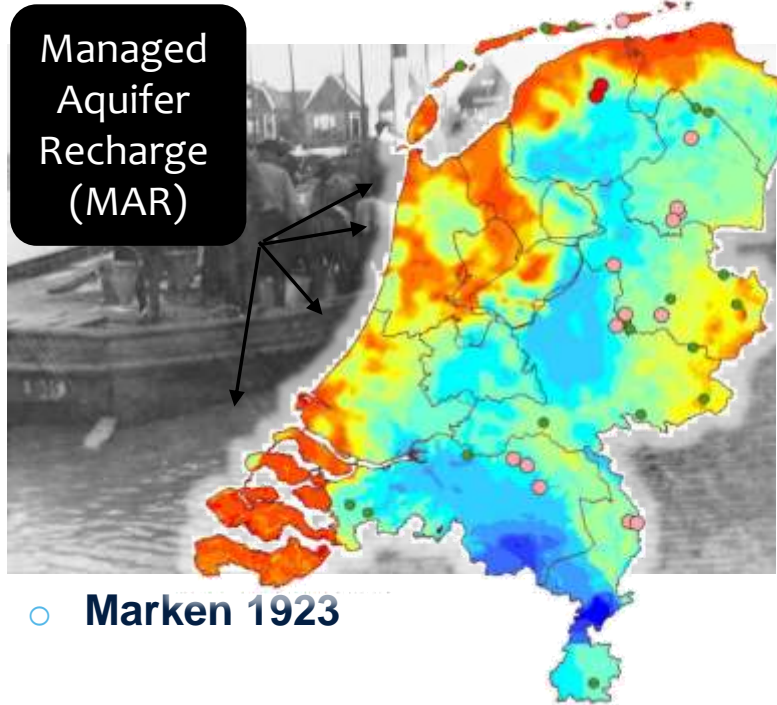


○ Marken 1932



# Freshwater supply in coastal NL

1950s – 2000s



# Freshwater supply in coastal NL

2010s

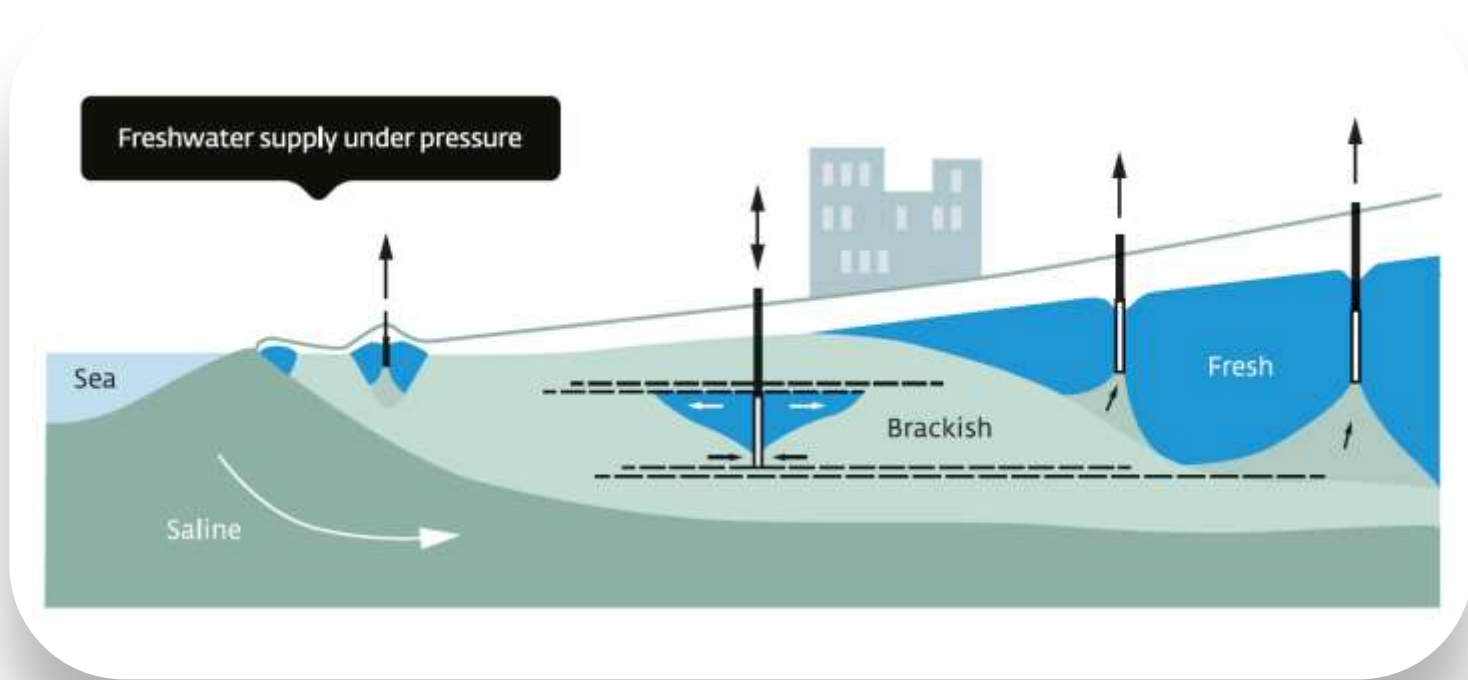


- Advances in density flow modeling
- Advances in water well techniques and operation
- Pressures in agriculture
- Small scale systems



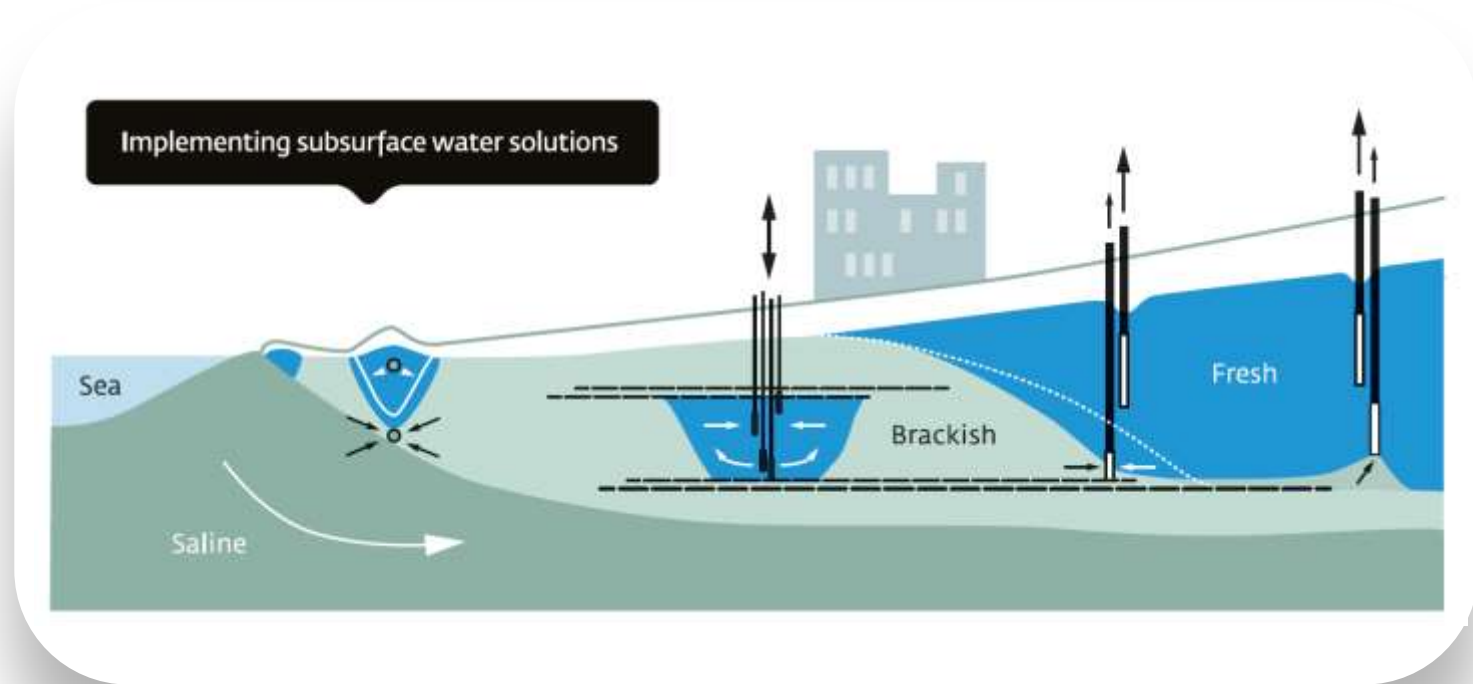
# Subsurface Water Solutions (SWS)

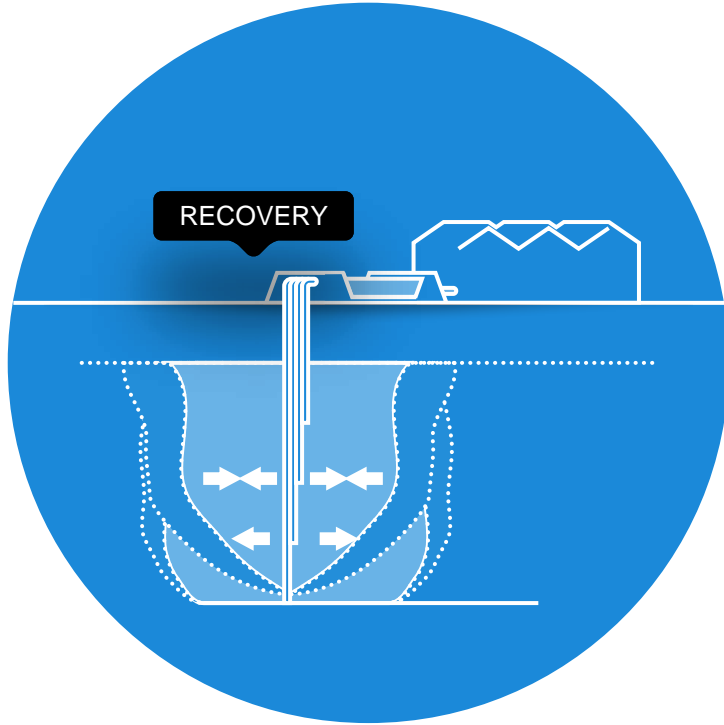
Advanced freshwater resources management in coastal areas

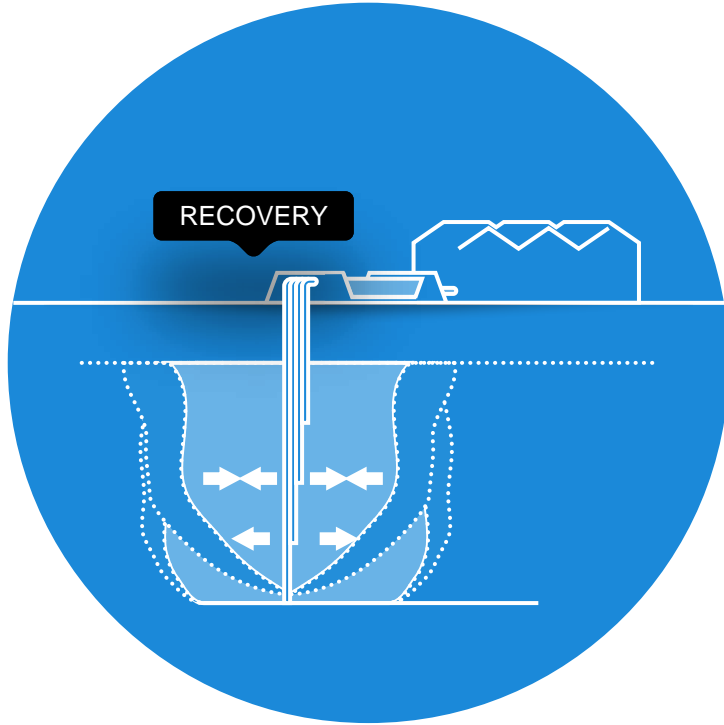


# Subsurface Water Solutions (SWS)

Advanced freshwater resources management in coastal areas



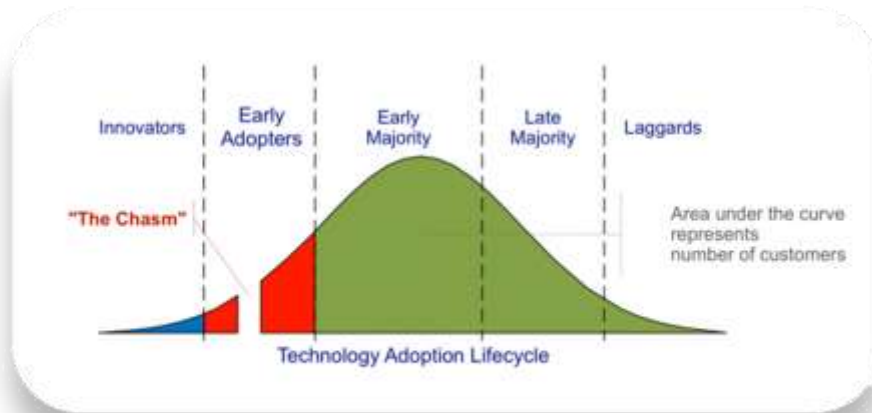






# SUBSOL rationale

**SUBSOL objective:** establish a market breakthrough of subsurface water solutions as robust, effective, sustainable, and cost-efficient answers to the freshwater challenges in coastal areas worldwide.



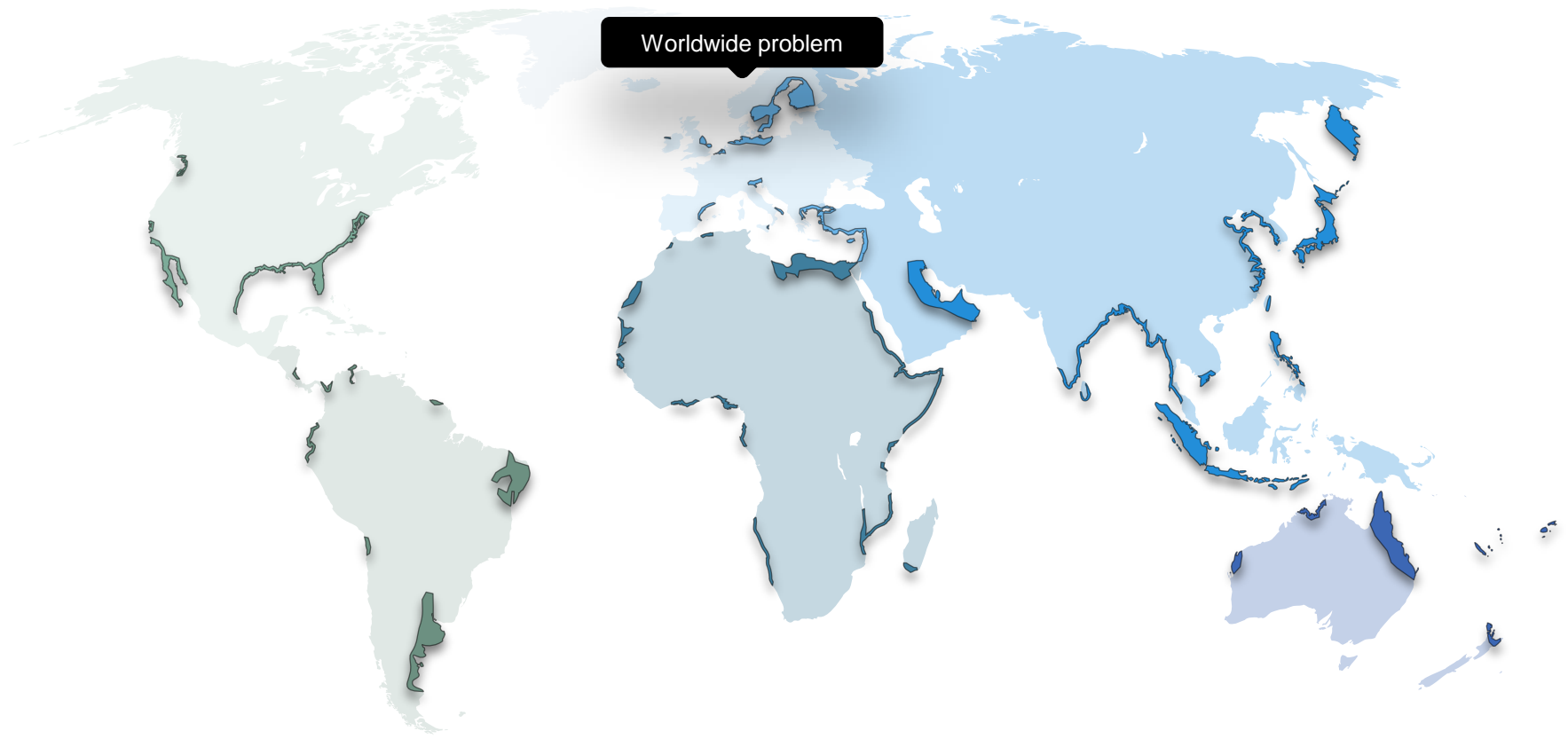
# SUBSOL rationale

**SUBSOL objective:** establish a market breakthrough of subsurface water solutions as robust, effective, sustainable, and cost-efficient answers to the freshwater challenges in coastal areas worldwide.

WP1	real-scale demonstration of long term viability	residual risk linked to scaling-up
WP2	market replication of near-market water solutions	Social, institutional, economic and governance aspects
WP3	standardisation and regulatory issues	untapped potential of ICT
WP4	market assessment and business plan	



Worldwide problem





Worldwide network

The map shows a global distribution of research sites. A black callout box labeled 'Worldwide network' is positioned at the top center. The map highlights several regions with blue circles and white circles with black outlines. The blue circles correspond to the 'Reference sites' (WP1) and 'Market scans' (WP4) listed in the text boxes. The white circles with black outlines correspond to the 'Replication sites' (WP2) listed in the text box.

#### WP1: Reference sites

- Freshkeeper Noardburgum (NL)
- Freshmaker Ovezande (NL)
- ASR Coastal Westland (NL)

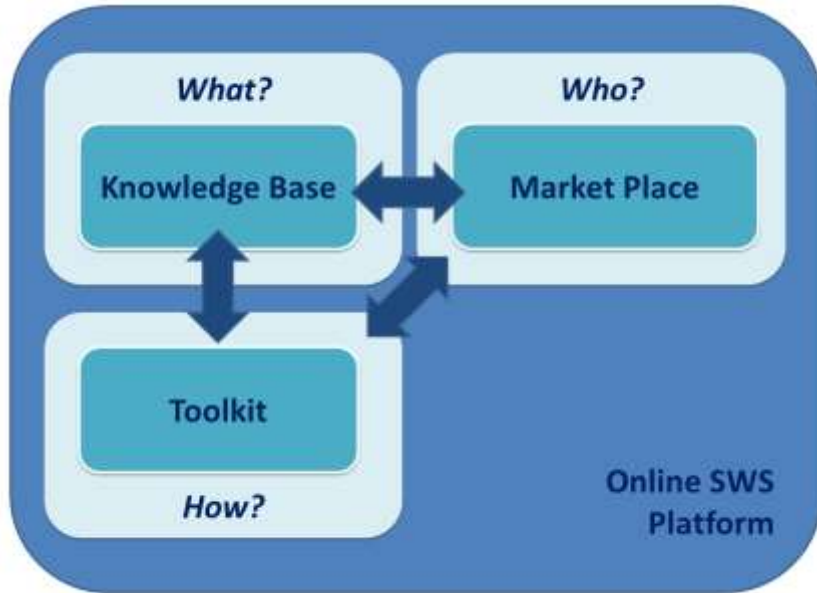
#### WP2: Replication sites

- Falster Island (DK)
- Schinias (GR)
- Dinteloord (NL)
- Maneadero (MX)

#### WP4: Market scans

- Northwestern Europe
- The Mediterranean (Greece, Cyprus, Turkey)
- China (Laizhou Bay)
- Brazil (Pernambuco)
- Gulf of Mexico (Florida, Mexico)
- Vietnam (Mekong Delta)

# WP3: open online SWS platform



...to share data, knowledge and lessons learnt between cases and across regions.

- **Knowledge Base** (SWS experiences, data, best practices, drivers, legislation, business cases, finances, pTA assessments)
- **SWS Toolkit** (tools and models, hydro-technical DSS, Environmental Technology Verification)
- **Virtual Market Place** (parties that provide expertise and knowledge)

# SUBSOL, the facts

- Call: **H2020 Water-1a-2014 (first application and market replication)**
- Project title: SUBSOL - bringing coastal SUBsurface water SOLutions to the market
  
- Starting date: 1 September 2015
- Duration: 36 months
  
- Total budget: 4,1 M€
- Total EC contribution: 3,4 M€
  
- Coordinator: KWR Watercycle Research Institute (The Netherlands)
- Consortium: 15 partners from Denmark (5), Germany (2), Greece (4), and The Netherlands (4)



# SUBSOL



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# Thank you

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