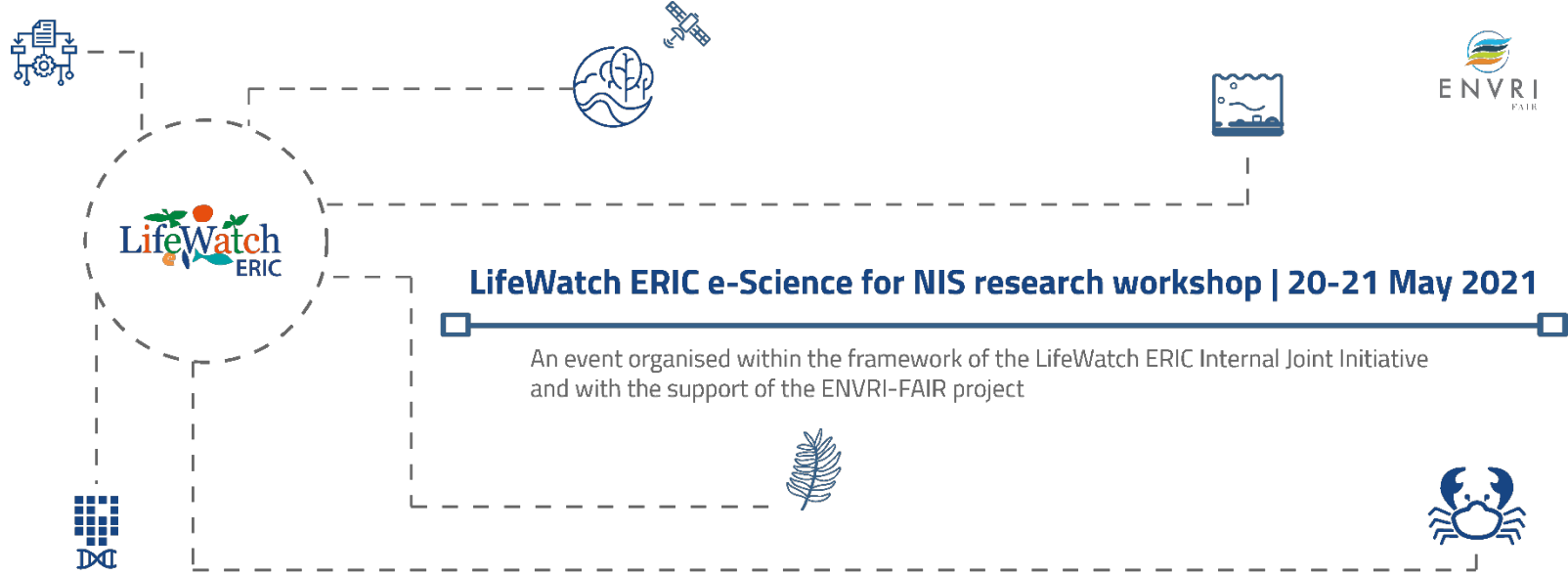


# eDNA for the detection of muskrat & coypu



Mirjam Boonstra University of Amsterdam



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# Why eDNA for detection of muskrat?

- 300.000 Km of waterways in the Netherlands
- Muskrat & coypu trapping done by professional trappers
- Cost approximately 33 Million Euros per year
- 70% of the costs go to tracking down muskrats, excluding trapping
- Using eDNA to reduce the cost of detecting muskrats & coypu
- Allowing trappers to focus on catching the animals

# Sampling approach

Autosampler: a fully automated GPS-based water sampling device



Routes of 3-5Km (average 4.2 Km)



# Following up

Samples analysed by qPCR

Positive:

- Route sampled with 1Km sub-routes
- 1Km sub-route positive: 100m point samples to localise burrow
- Catch muskrats
- Check if all muskrats are gone by eDNA sampling

Approach adapted depending on experience

Multiple tools in development to facilitate easy sampling in field



# Thank you for your attention

A cooperation between: Unie van Waterschappen, Wetterskip Fryslân, Hoogheemraadschap de Stichtse Rijnlanden, Waterschap Hunze & Aa's, Waterschap Rivierenland & the University of Amsterdam

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