Channel Payments for Ecosystem Services

T1.1.1 – Plan for the Pilot Study

Interreg
EUROPEAN UNION
France (Channel Manche) England
European Regional Development Fund

T1.1.1 Implementation Plan - Pilot Studies

6 x PILOT STUDIES, 90 SELLERS & 18 BUYERS/BROKERS

1. WRT - Small <100km2 catchment estuary and lake (Cornwall & Devon)
2. PW, UoC, SDNP - chalk downs groundwater (Hampshire)
3. SW, UoC, SDNP, EA - Rother catchment in the South Downs (West Sussex)
4. SERPN, SHC – Tremblay - Omonville Drinking Water catchment (Normandy)
5. EDP, SHC - The Vine catchment (Normandy)
6. SMGBO, UR1, CNRS, INRA, AO - surface water quality in Lac au Duc (Brittany)

1 - WRT Estuary & Lake Pilot

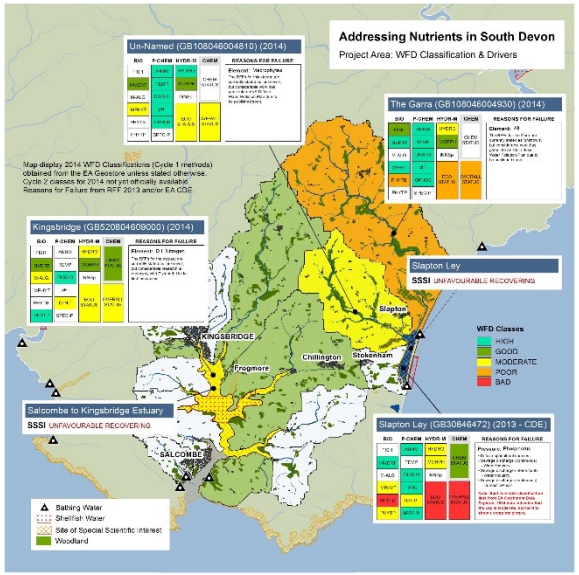
The WRT Estuary pilot is in the Kingsbridge Salcombe area where the **problem** of algal blooms are having an **impact** on:

- Tourism / Recreation
- Bathing Water
- Shell fisheries

The **source** of the problem is nutrients (Phosphate and Nitrate)

The **pathway** is through field run off and private drainage

The **receptor** is the estuary which has a long residency time



The WRT Lake pilot is in the Roadford area where the **problem** of sediment and agrichemical loss is having an **impact**:

- Tourism / Recreation
- Drinking Water
- Fisheries
- Farming

The **source** of the problem is soil, nutrients & pesticides

The **pathway** is through field run off

The **receptor** is the lake which is filling up with sediment and impacting quality

1 - WRT Estuary & Lake Pilot

The WRT Estuary pilot is in the Kingsbridge Salcombe area where the **problem** of algal blooms are having an **impact** on:

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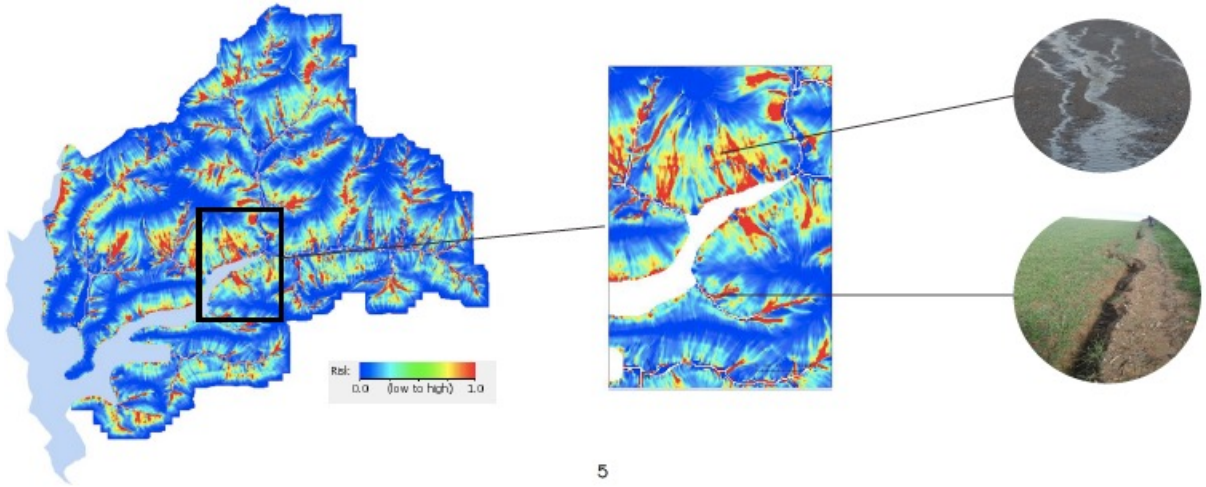


2 - Portsmouth Water Groundwater Pilot

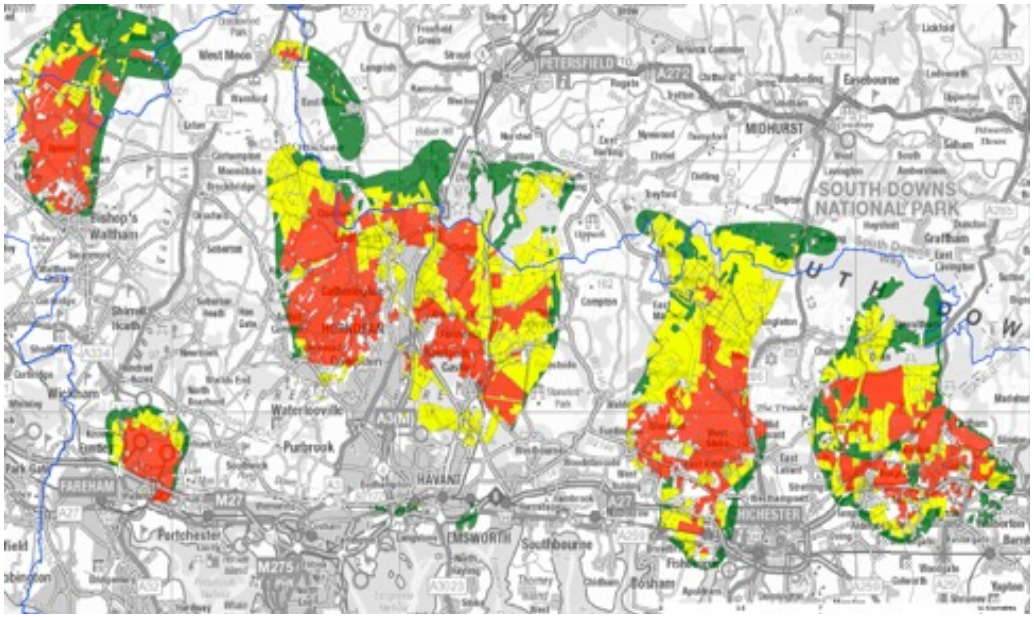
The PW groundwater pilot is in the South Downs chalkland, where the **problem** of nitrate in groundwater is having an **impact** on:

- water quality,
- resilience abstraction,
- biodiversity & ecology,
- farming & fisheries

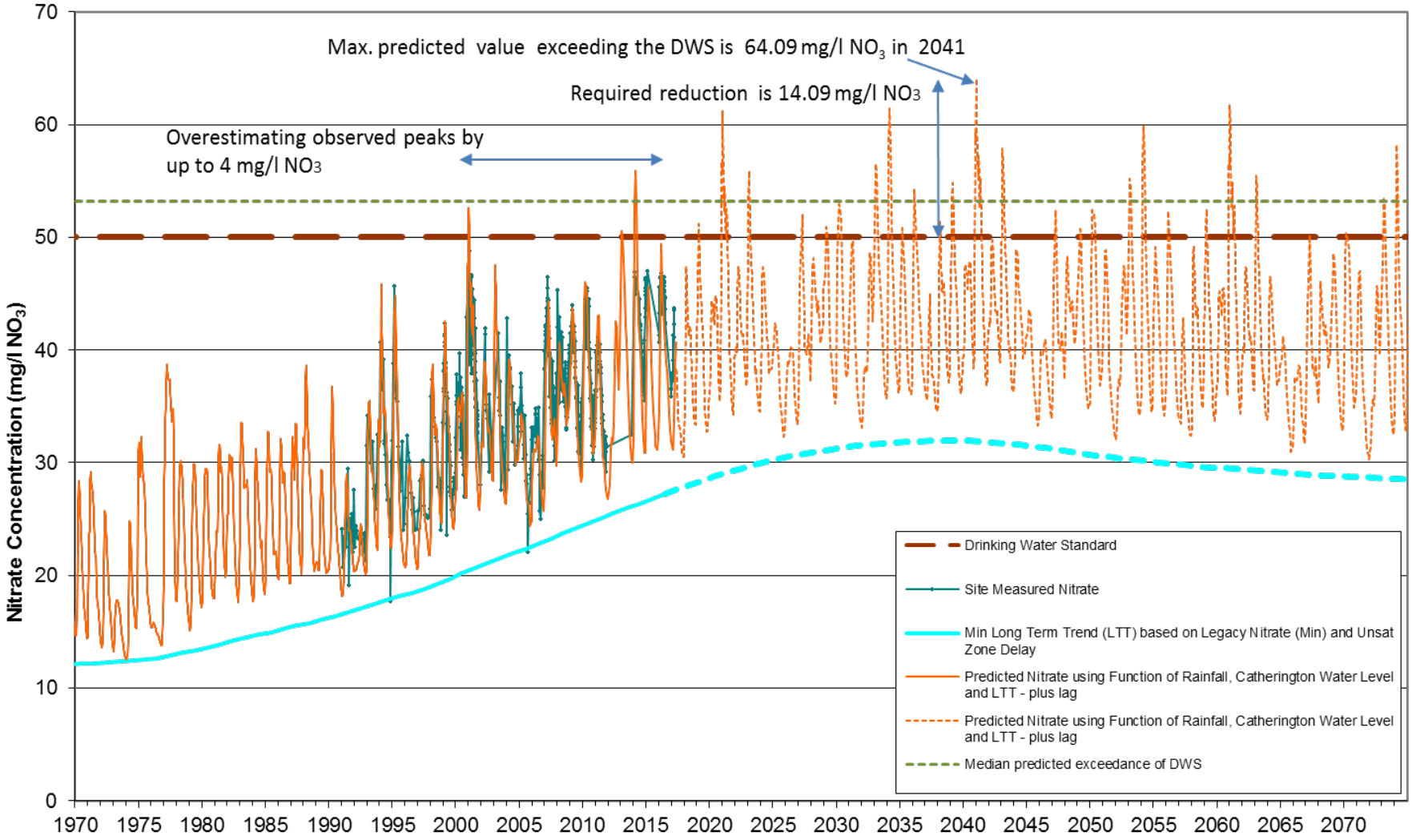
The **source** of the problem is arable farming (leaching and overland flow)

The **pathway** is through matrix flow and karstic features

The **receptor** is the chalk aquifer, abstractions, groundwater fed rivers & harbours



2 - Portsmouth Water Groundwater Pilot



3 - Southern Water River Rother Pilot

The SW river pilot is in the Western Rother area where the **problem** of sediment and agrichemical loss is having an **impact** on:

- Drinking water quality
- Resilience of abstraction point
- Riverine habitats
- Fisheries
- Landscape
- Local communities
- Farming

The **source** of the problem is soil, nutrients & pesticides

The **pathway** is through field run off and in-channel erosion

The **receptor** is the river and SW abstraction at Hardham

4 - Tremblay-Ormonvill Pilot

SARA HERNANDEZ CONSULTING
BUILDING TOGETHER A RESILIENT ECONOMY

Bassin d'alimentation de captage (BAC) d'eau potable du Tremblay-Ormonville

SERPN=> 68 000 habitants des 100 communes.

BAC Tremblay-Ormonville

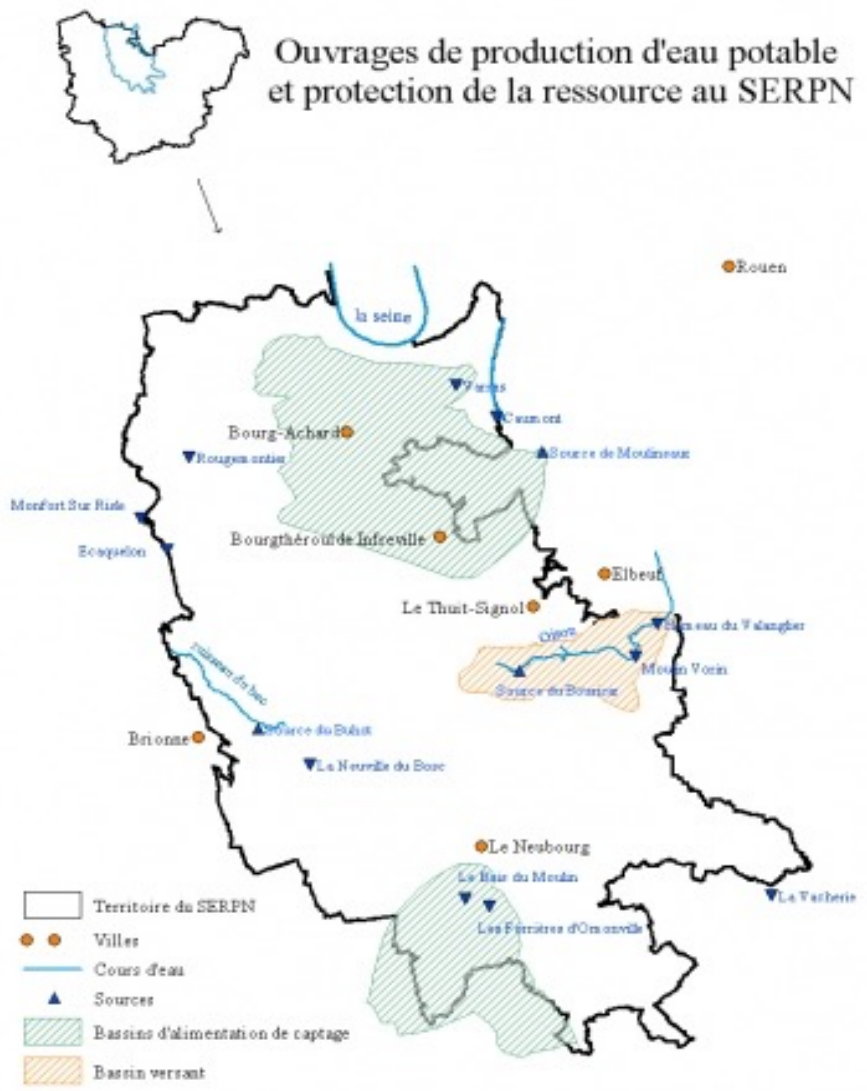
⇒ 63 Km2

⇒ 5 900 ha surface agricole = 85% de la surface total de l'aire d'alimentation de captage

⇒ Zone exploité par 125 agriculteurs dont 50 exploitations couvrent 80% du total de la BAC

⇒ **Source Activité agricole intensive en intrants phytosanitaire** pour la production végétale (25% des cultures de printemps dont 20% de cultures industrielles: lin, betteraves, pomme de terre)

⇒ => L'élevage représente 12% des eleveurs.



eau seine NORMANDIE
Agence de l'eau

eau de Paris
L'eau. Un service public

SERPN

4 - Tremblay-Ormonvill Pilot

SARA HERNANDEZ CONSULTING
BUILDING TOGETHER A RESILIENT ECONOMY

PROBLEME

Concentration de nitrates qui oscille entre 40-50 mg/l.

Risque de dépasser le seuil permissible de 50mg/l.

Détection ponctuelles de phytos d'origine agricole (herbicide bentazone)

SOLUTIONS en cours et souhaitées

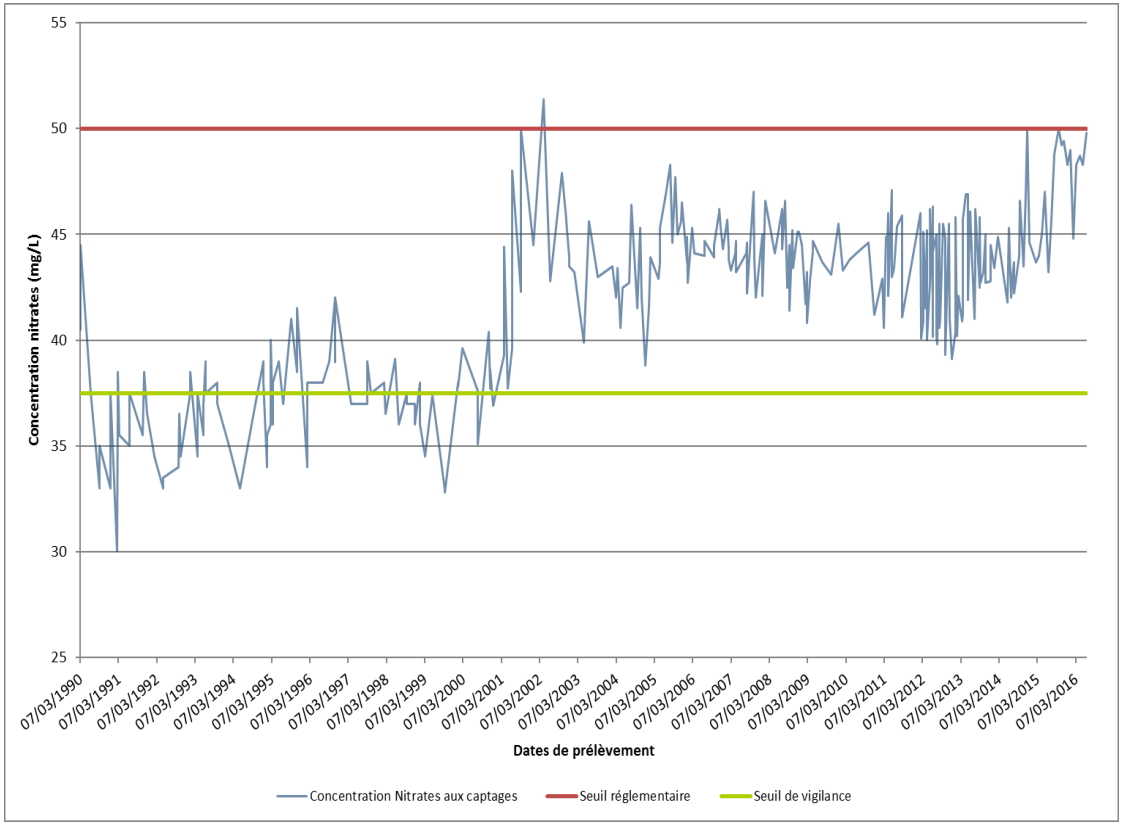
Actions de prévention: Changements de pratiques agricoles de gestion inter-cultures et de successions de cultures prioritaires en limitant le reliquat d'azote minéral.

⇒ Accompagnement technique

⇒ Explorer des formes de soutien financier pour les agriculteurs

⇒ Assurer une base légale contractuelle

⇒ Assurer un suivi administrative et de contrôle



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5 - Vigne Pilot

SARA HERNANDEZ CONSULTING
BUILDING TOGETHER A RESILIENT ECONOMY

Bassin d'alimentation d'eau potable (BAC) de la Vigne

Eau de Paris=> établissement public industriel et commercial créé par la Ville de Paris.

Bassin d'alimentaiton de la Vigne

⇒ La Vigne est situés à 2/3 en Normandie et 1/3 en région Centre 37 550 ha dont 9 323 ha dans l'Eure).

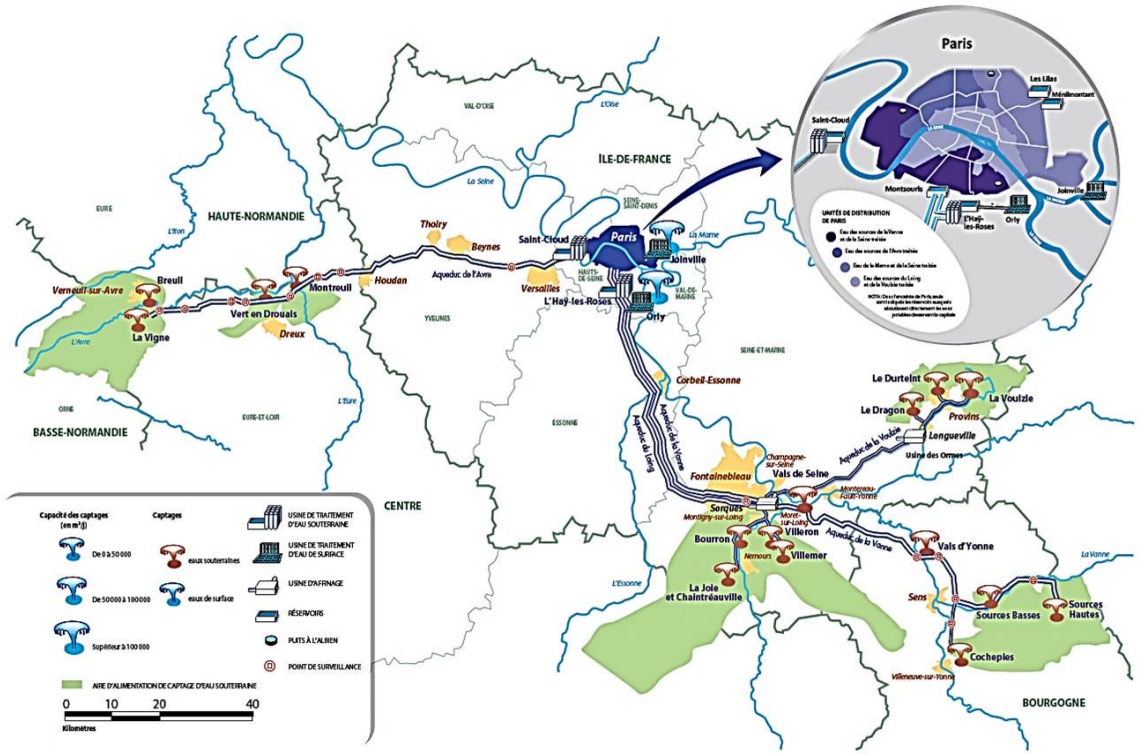
⇒ 40 communes

⇒ **Source** significative d'eau potable pour Paris (aqueduc de l'Avre)

⇒ Occupation du sol: 60% surface agricole, 1% zone urbaine, 39% forêts)

⇒ 316 exploitants agricoles dont 190 sur le territoire de l'Eure)

⇒ Cultures principales: blé, colza, orge



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SERPN

5 - Vigne Pilot

PROBLEME

Concentration de nitrates

Pollution par phytosanitaires (herbicides)

SOLUTIONS ACTUELLES et potentielles:

⇒ Certains agriculteurs reçoivent des mesures agro-environnementales

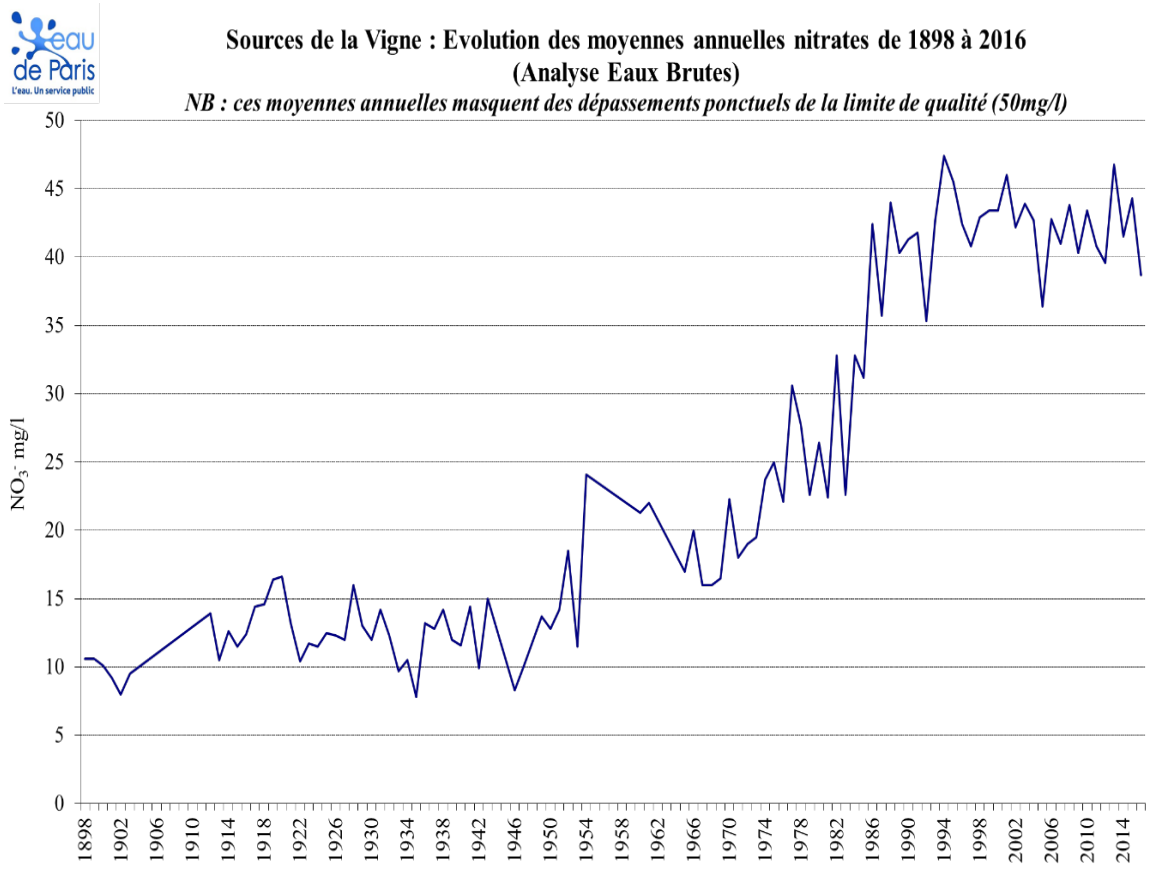
⇒ Accompagnement technique et capacitation

⇒ Préparation d'Appel à projet= moyen de financer les changements de pratiques.

⇒ Nécessité d'accroître analyses économiques pour justifier le paiement hors aides agricoles

⇒ Montage financier

⇒ Suivi administratifs et justification juridique des contrats



6 - Lac au Duc

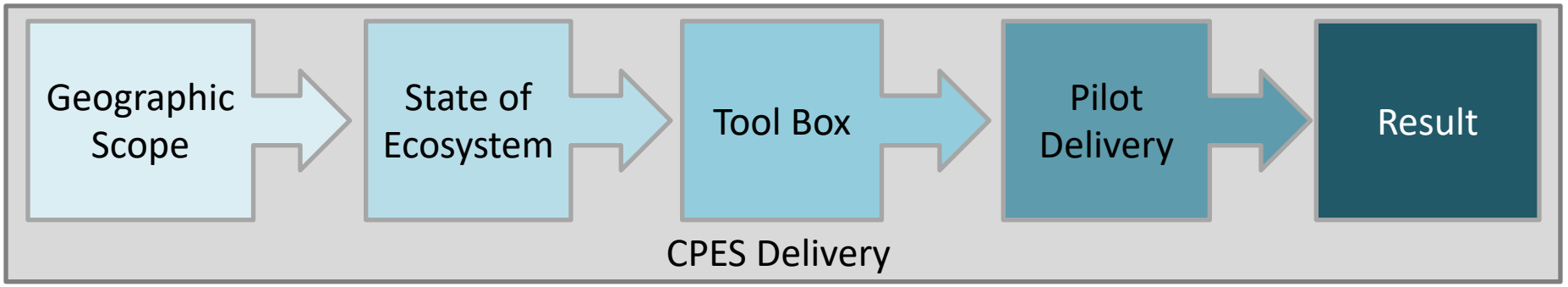
The Lac au Duc is in Brittany where the **problem** of cyanobacteria blooms is having an **impact** on drinking water treatment cost and recreational activities (bathing, sailing, etc).

The **source** of the problem is nutrients (Nitrogen and Phosphorus) from agricultural and other origin and phosphorus is deemed to be the limiting nutrient.

The **pathways** are erosion as well as surface and subsurface runoff.

The **receptor** is the lac au Duc

T1.1.1 Implementation - Pilot Studies



3.1 Pilot Study Planning by November 2017 (This meeting)
3.1.1 Deliverable: 1 x Plan for collating Pilot – T1 WP Project Inception Document

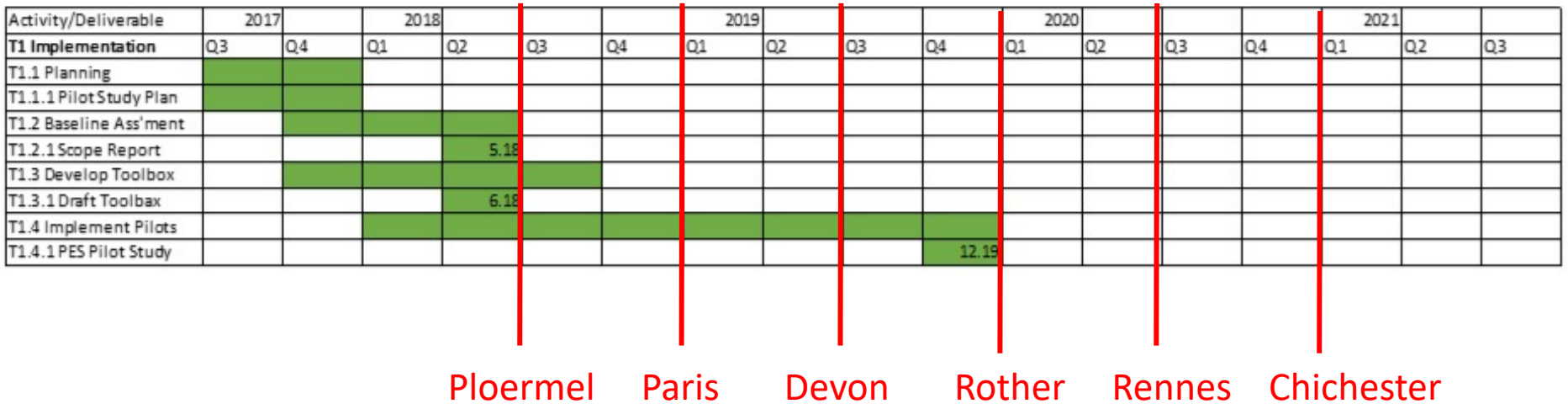
3.2 Baseline Assessment by May 2018 (Are we on track? - Link to Coms 2.3 events)
3.2.1 Deliverable: 6 x Geographic Scope report & 6 x State of the environment report

3.3 Development of Toolbox of Resources by June 2018
3.3.1 Deliverable: 1 x Draft Tool box and 6 x Pilot Risk Profile

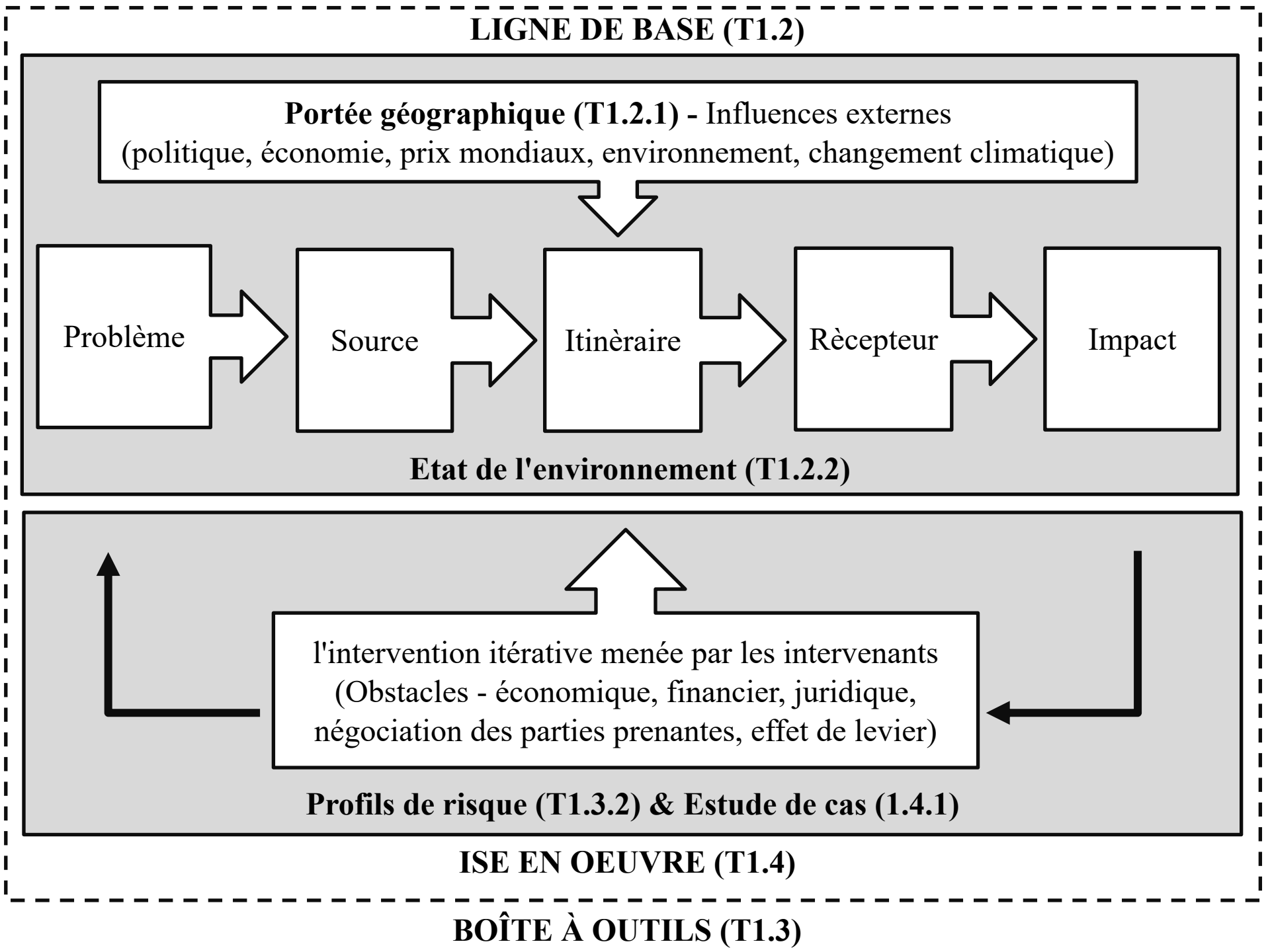
3.4 Implement Pilots by December 2019 (Do we need longer? - December 2020?)
3.4.1 Deliverable: 1 x report with 6 Pilot reports

3.5 Evaluation Report by April 2020
3.5.1 Deliverable: 1 x Evaluation report and 1 Refined Toolbox

Time line



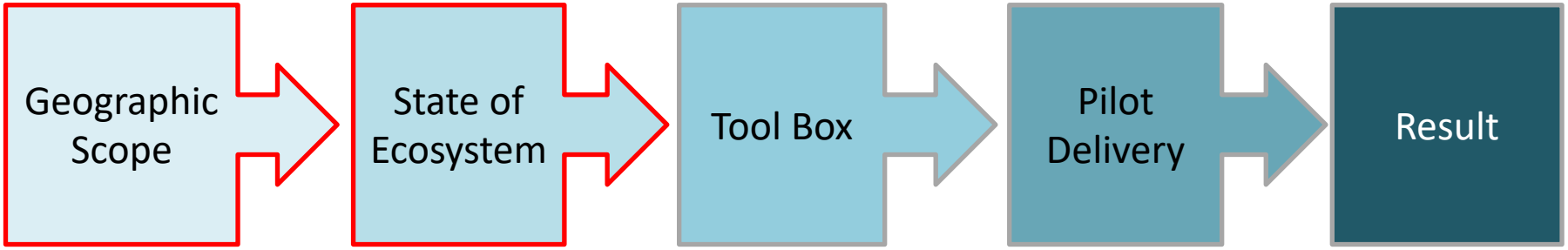
Date	Location	Organiser
May/June 2018	France, Ploermel	PSMGBO
November/December 2018	France, Paris	SHC
May/June 2019	UK, Devon	WRT
November/December 2019	UK, Rother	SW
May/June 2020	France, Rennes	UoR
November/December 2020	UK, Chichester	UoC

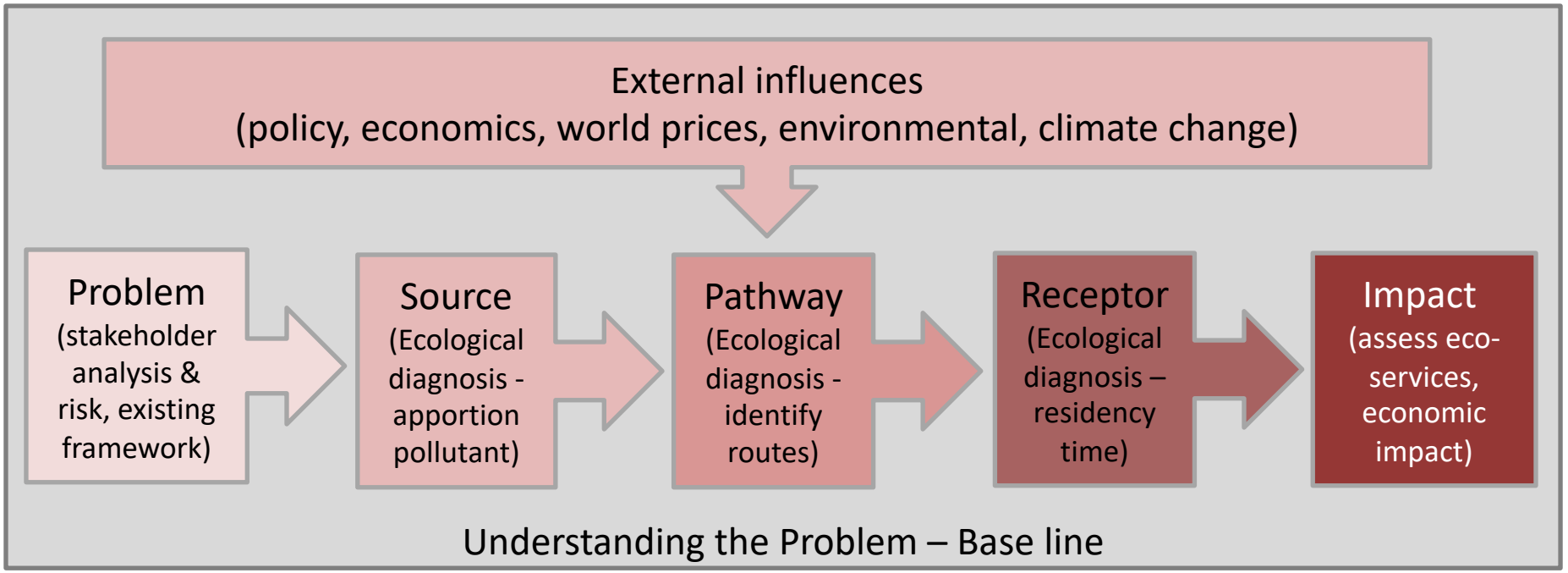

LIGNE DE BASE (T1.2)
Portée géographique (T1.2.1) - Influences externes
(politique, économie, prix mondiaux, environnement, changement climatique)
Problème
Source
Itinèraire
Rècepteur
Impact
Etat de l'environnement (T1.2.2)
l'intervention itérative menée par les intervenants
(Obstacles - économique, financier, juridique,
négociation des parties prenantes, effet de levier)
Profils de risque (T1.3.2) & Estude de cas (1.4.1)
ISE EN OEUVRE (T1.4)
BOÎTE À OUTILS (T1.3)

BASE LINE ASSESSMENT		
Ecological assessment	Ecological diagnosis on agri-environmental practices on the quality of water resources	SERPN
Socioeconomic assessment	Stakeholder analysis, stakeholder's perceptions and risk (of corrective measures/ technical solutions/ best practice) -	SHCLtd
	Analysis of the existing regulatory framework and SWOT of current schemes	SHCLtd
	Cost of inaction and economic value and assessment of ES	AELB
	Economic impact of corrective measures/ technical solutions/ best practices	
DESIGN FRAMEWORK		
Economic and financial analysis of the PES arrangements	Characteristics of the PES mechanisms - Identification of the additionality	SHCLtd
	Structure of the payment system (auctions system, experimental economics)	SHCLtd
	Assessment of the financial needs for the payment system (including cost control and monitoring)	SHCLTtd
	Economic and financial model for the PES (including financial sustainability assessment)	SHCLTtd
Risk Profile Management	Environmental assessment of the effects of PES	SERPN
	Economic and social analysis of the distributional effects of the PES	LAMETA
IMPLEMENTATION ISSUES		
Negotiation process	Stakeholder engagement negotiation plans	SERPN
	involvement/engagement of stakeholders, including local authorities throughout the journey	SERPN
Implement change to create action	Legal and financial for PES contracts, in accordance with local and national authorities	SHCLtd
	Stakeholder engagement through the signatures of the PES contracts	SERPN
	Analysis of the effectiveness of the PES system	SHCLtd
Toolbox	Toolbox on the design mechanisms	
	Toolbox on the implementation issues	
	Toolbox on methodological issues	
Publications	Published findings	
	Wider diffusion of findings	
	Steering committee (3 per year)	SHCLTtd

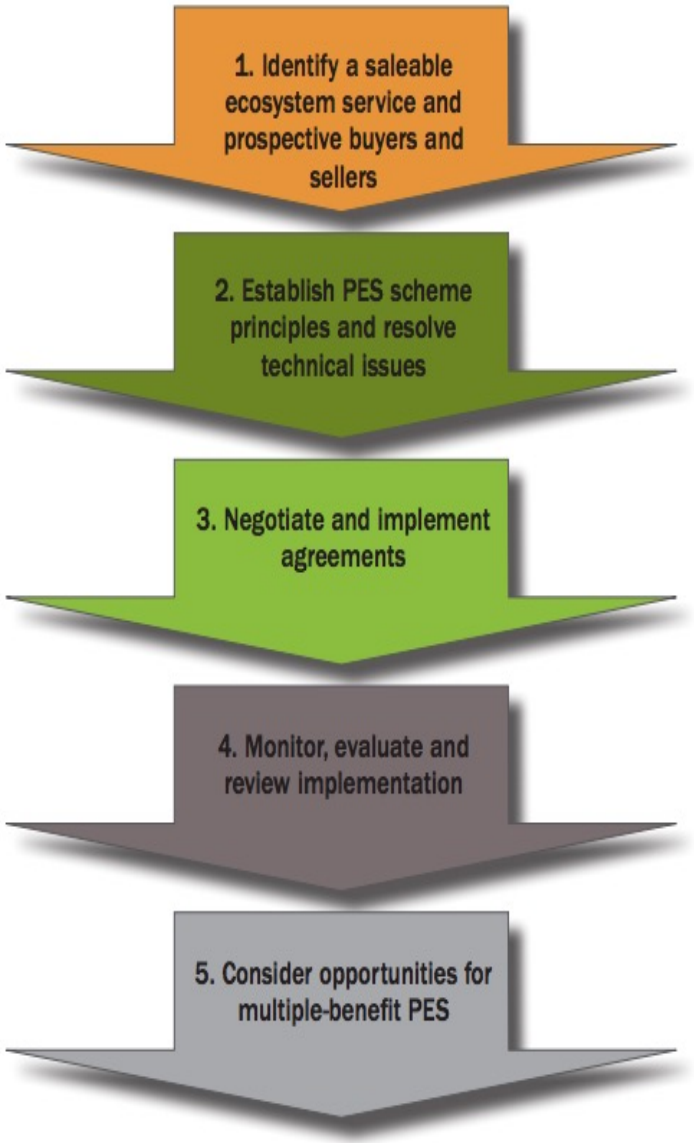
3.2 Baseline Assessment by May 2018 (Where are you?)

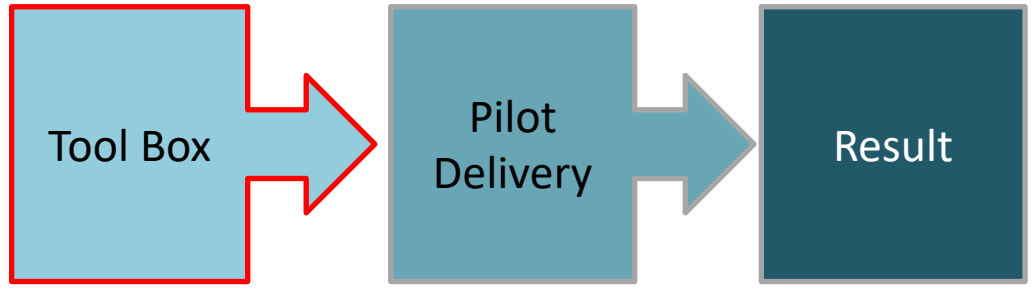
Deliverable: 6 x Geographic Scope report and 6 x State of the environment report



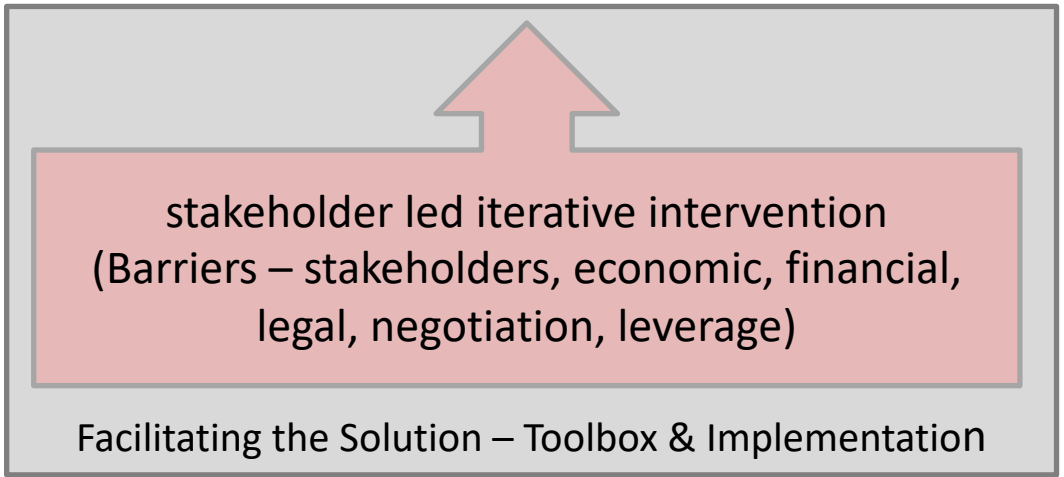


3.3 Development of Toolbox of Resources by June 2018



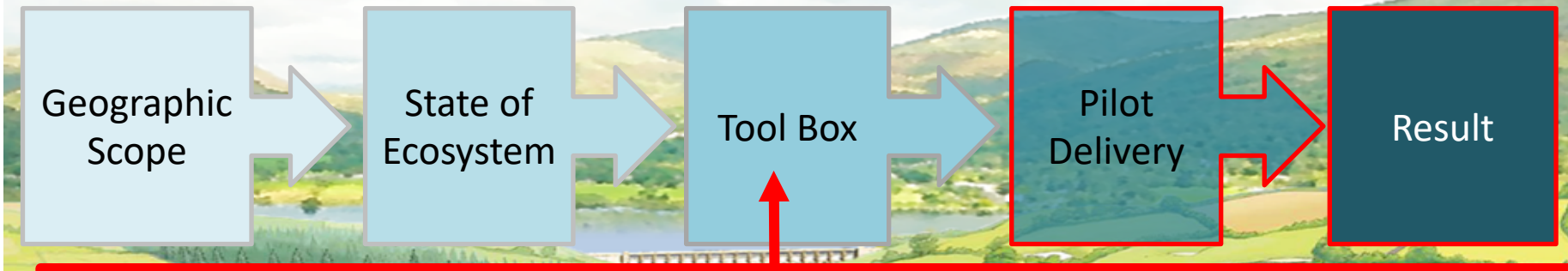


Report – 1) Characterize PES mechanism,
2) Structure payment system (auctions, grants),
3) Assess financial needs and model,
4) Assessment of effects of PES,
5) Wider economic & social impacts



3.4 Implement Pilots by December 2019

Deliverable: 1 x report with 6 Pilot reports



Stakeholder engagement negotiation plans - EXAMPLE PER PILOT AREA
involvement/engagement of stakeholders, including local authorities throughout the journey
Legal and financial for PES contracts, in accordance with local and national authorities
Stakeholder engagement through the signatures of the PES contracts
Analysis of the effectiveness of the PES system
Toolbox on the design mechanisms
Toolbox on the implementation issues
Toolbox on methodological issues
Published findings
Wider diffusion of findings
Steering committee (3 per year)

3.1 Pilot Study Planning by November 2017 (LC draft by Jan feedback by Feb 18 finalize March
3.1.1 Deliverable: 1 x Plan for collating Pilot – T1 WP Project Inception Document

3.2 Baseline Assessment by May 2018 (draft components in Ploermel June 18 finalize?)
3.2.1 Deliverable: 6 x Geographic Scope report & 6 x State of the environment report

3.3 Development of Toolbox of Resources by June 2018 (Draft Ploermel but add to it)
3.3.1 Deliverable: 1 x Draft Tool box and 6 x Pilot Risk Profile

3.4 Implement Pilots by December 2019 (Maximum amount of time needed Sept 2020?)
3.4.1 Deliverable: 1 x report with 6 Pilot reports

3.5 Evaluation Report by April 2020 (December 2020?)
3.5.1 Deliverable: 1 x Evaluation report and 1 Refined Toolbox