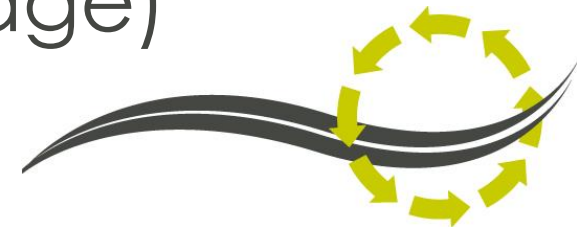


Projet ANR IMPROVMURE Où en est-on?

Journée d'échange Réjuvénants

Paris

S. POUGET (USIRF/Eiffage)



PN MURE - ANR IMPROVMURE

En bref

⇒ Projet ANR :

- Montant global : 2 318 k€
- Dont subvention : 801 k€
- Durée du projet : 48 mois
- Démarrage : 1er mars 2014



AGENCE NATIONALE DE LA RECHERCHE
ANR

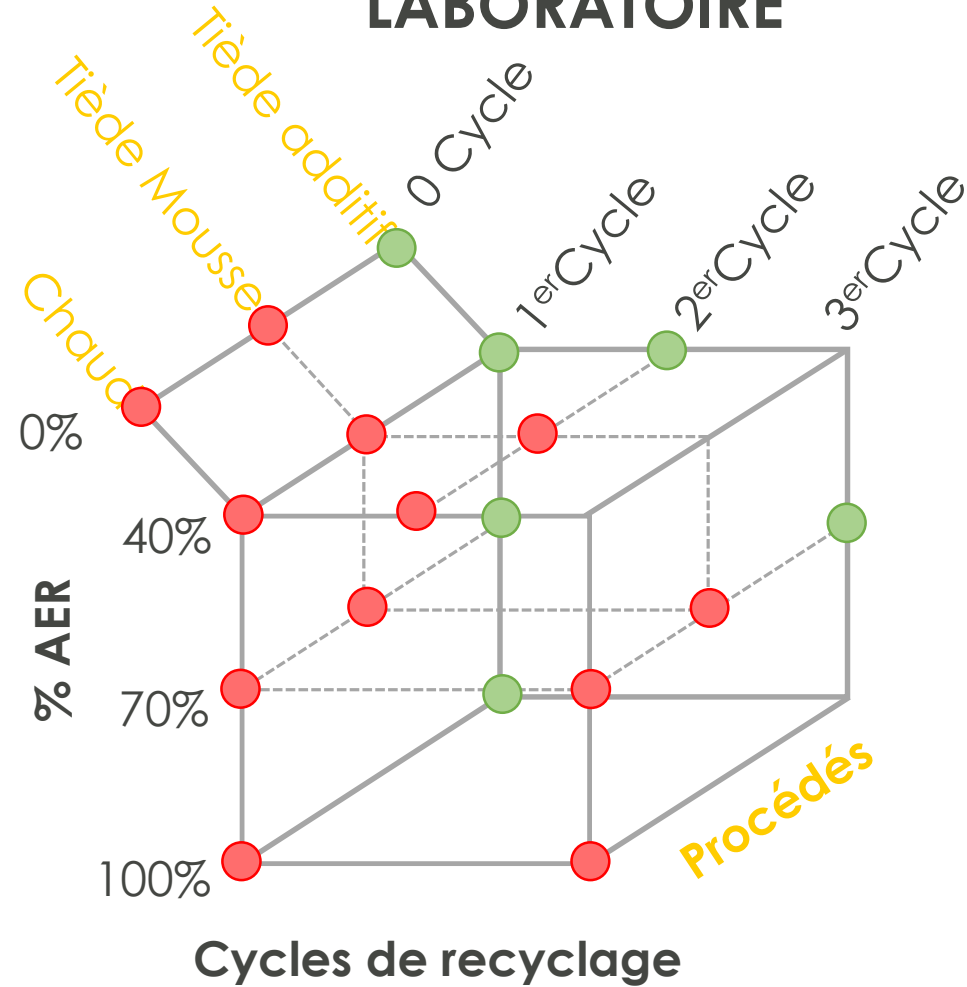
⇒ Coordination: EIFFAGE

⇒ Partenariat: ENTPE, IFSTTAR, IREX, USIRF, CEREMA

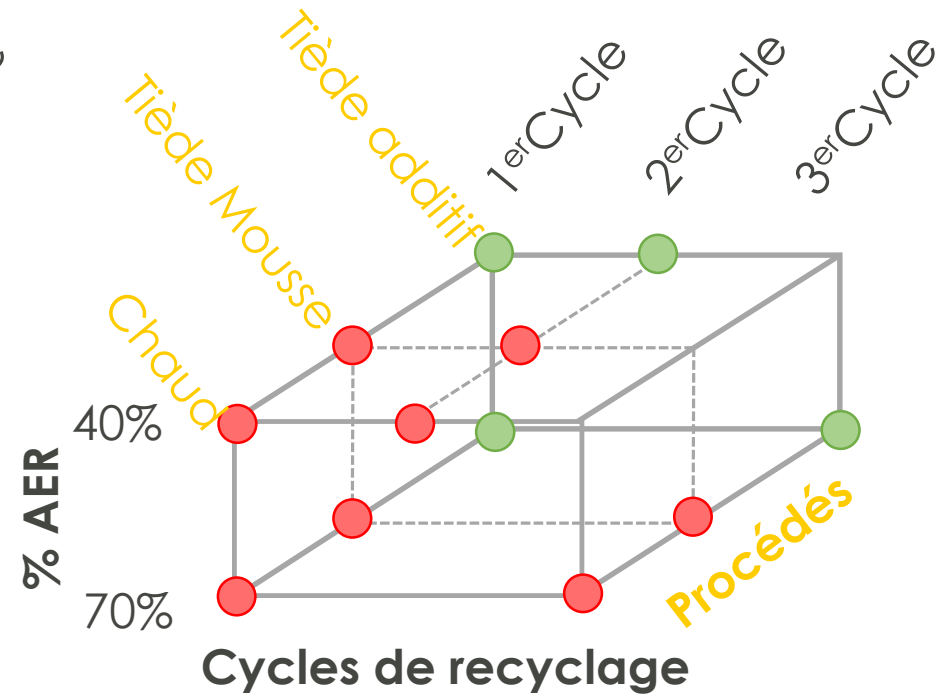


Matériaux

LABORATOIRE



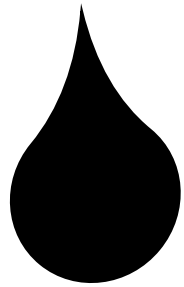
CHANTIERS PN MURE



- Thermomécanique + Chimique Environnemental
- Chimique Environnemental uniquement

Principes de formulation

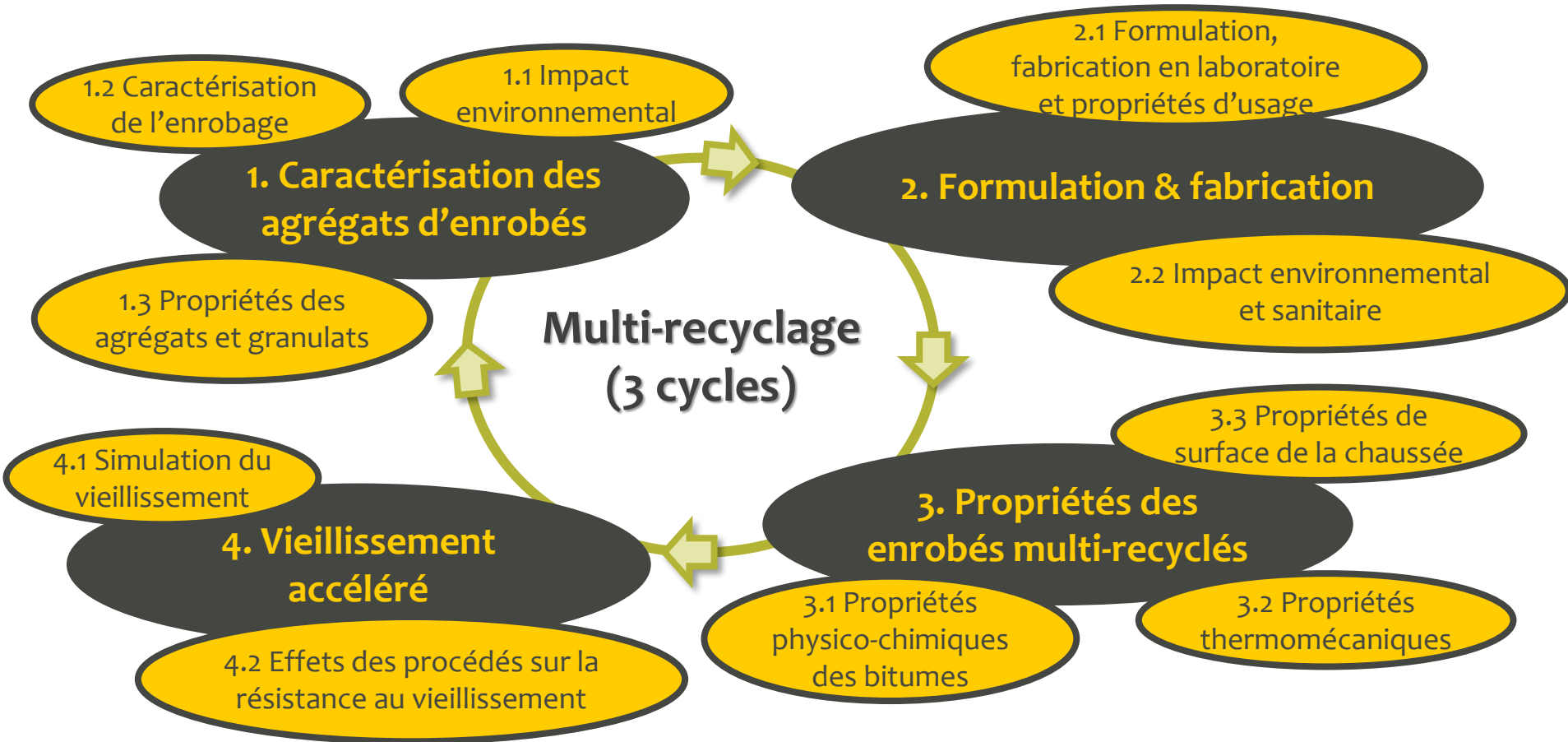
Courbe granulométrique constante
BBSG 0/10 quelque soit le %AE



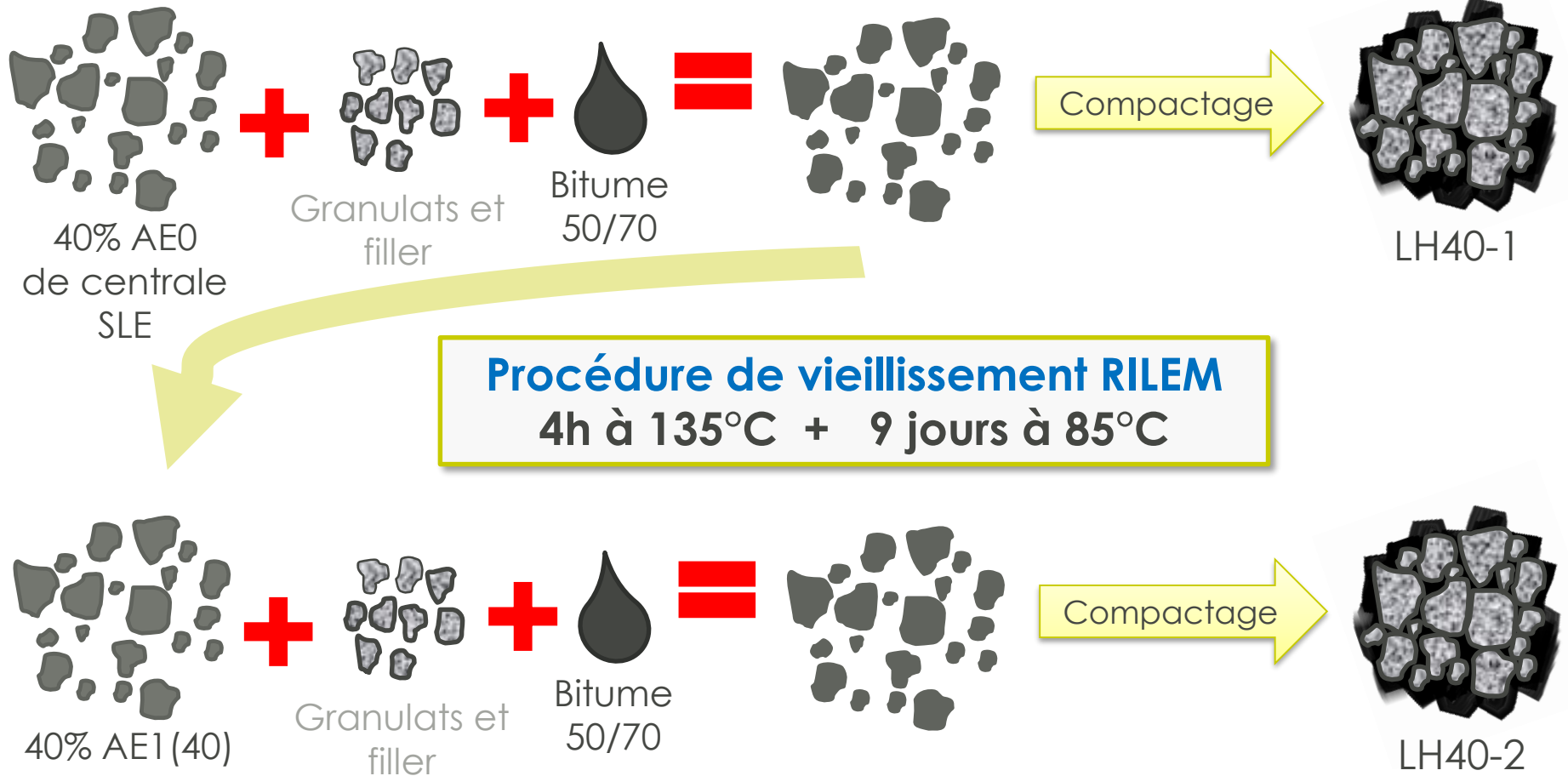
Bitume	AER	Péné (1/10mm)	TBA (°C)
35/50	0%	41	52.2
50/70	40%	60	48.4
160/220	70%	180	39.2

Programme expérimental

2 thèses financées

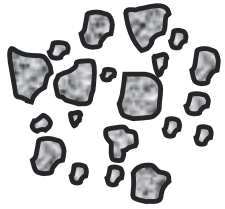


Procédure de vieillissement en laboratoire

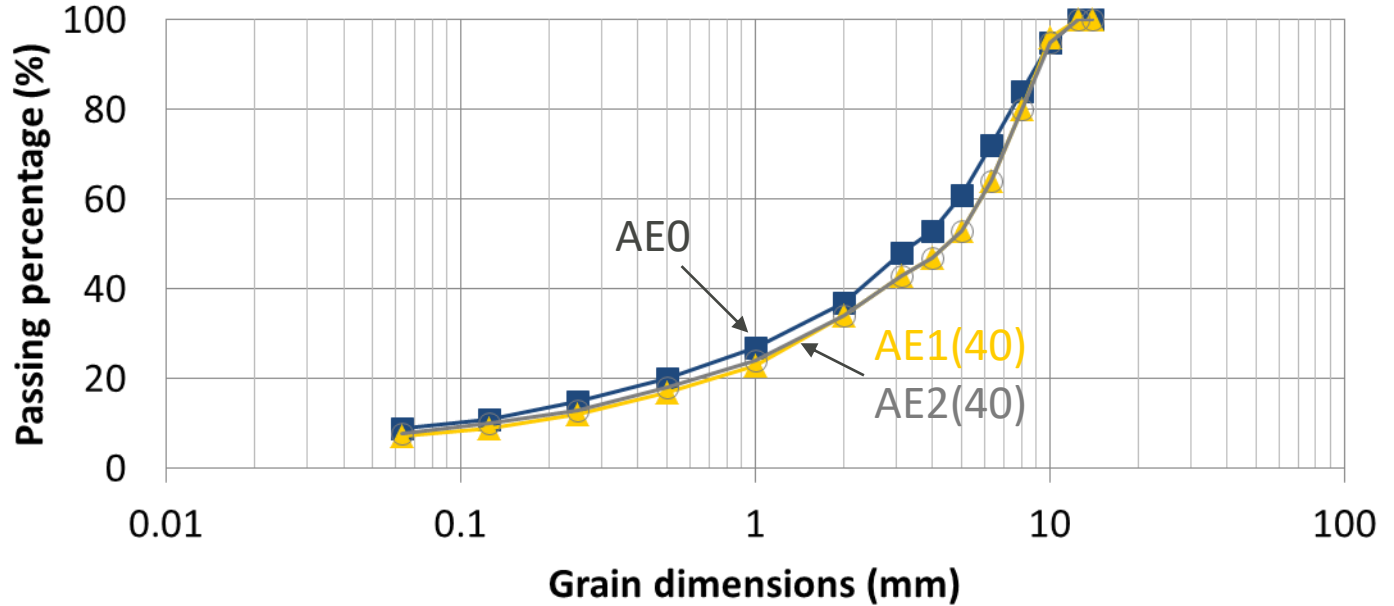


Agrégats d'enrobés (AE)

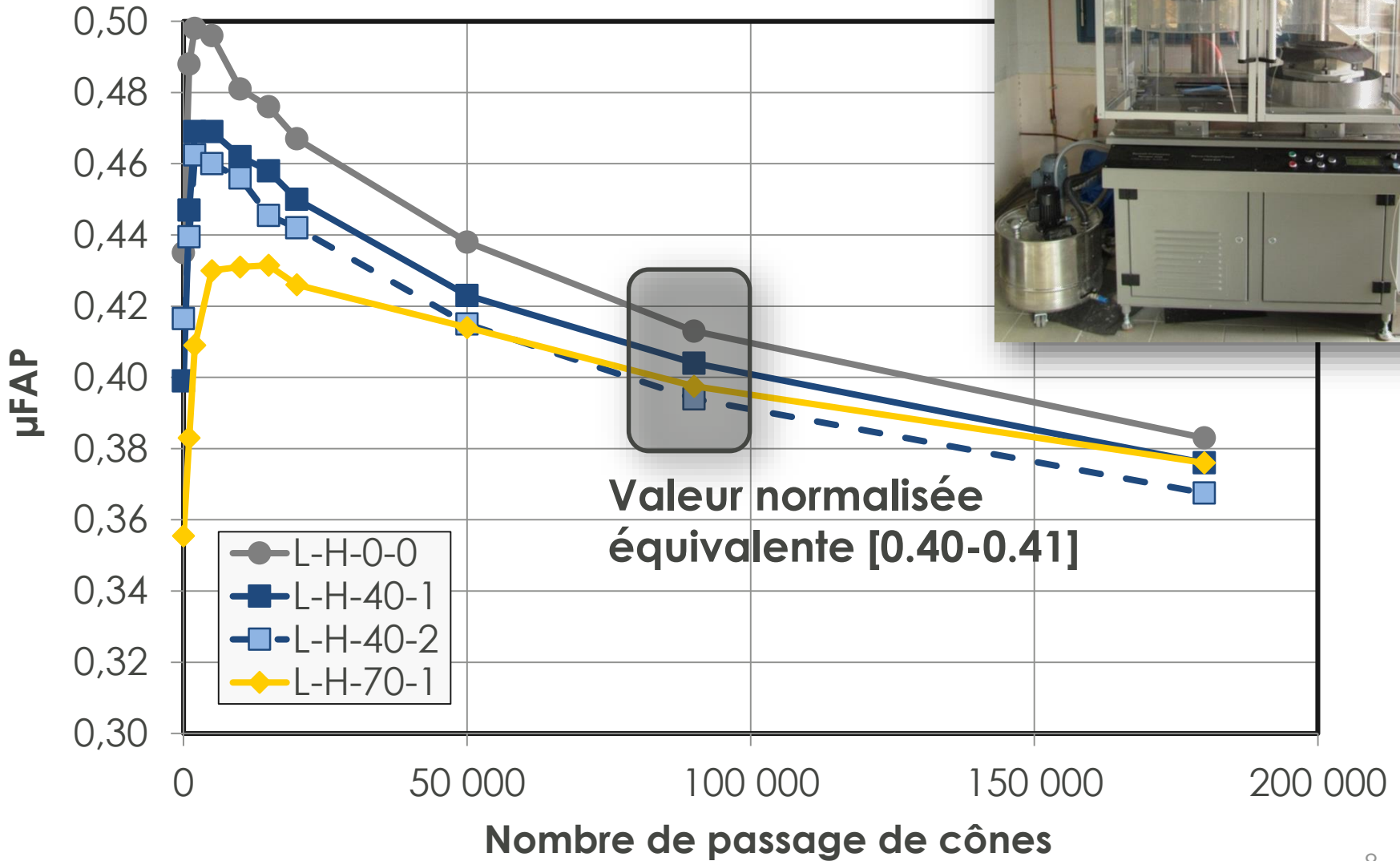
Granulats désenrobés



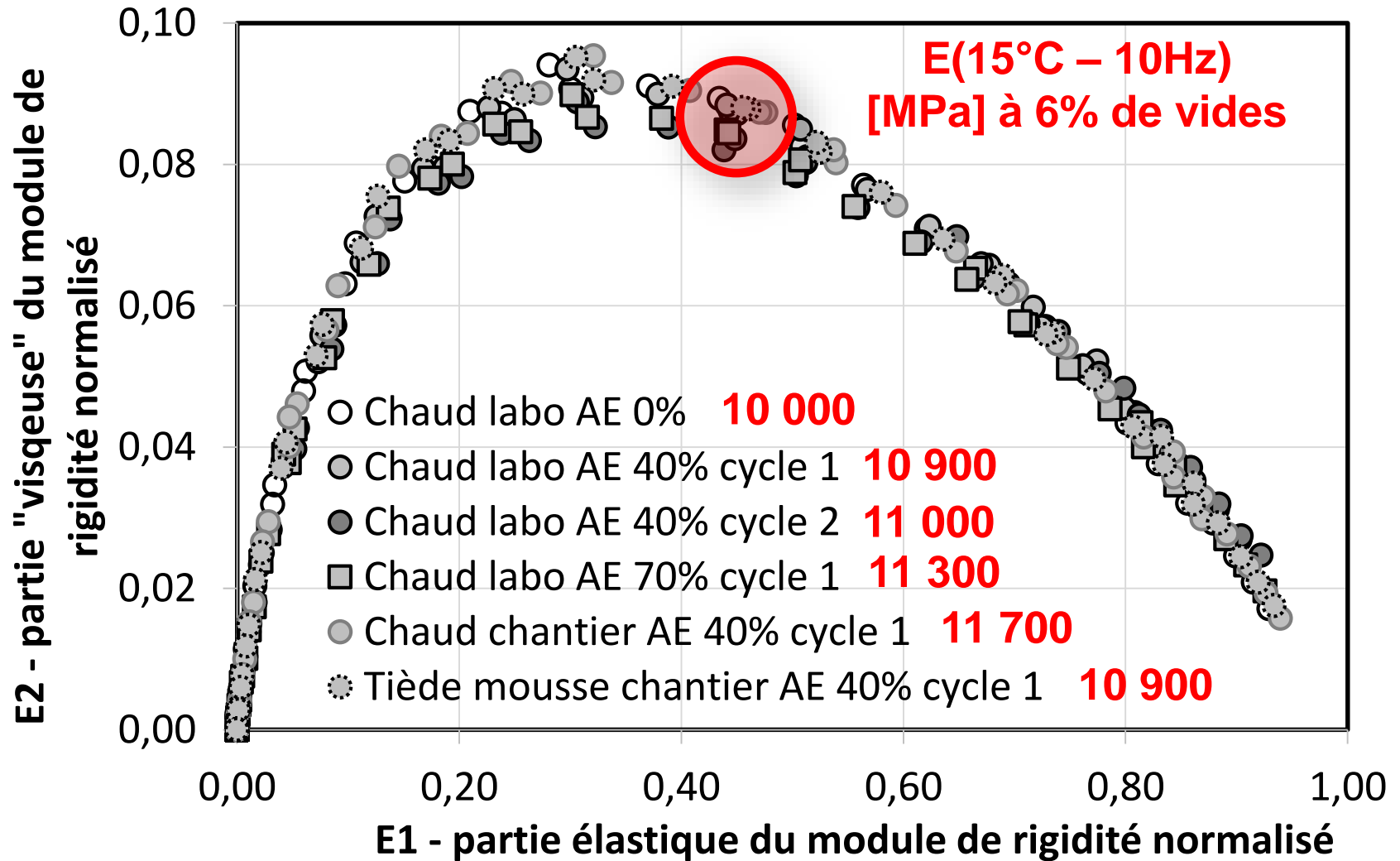
Liant extrait



	Péné	TBA
AE0	10	76.2
AE1(40)	14	72.8
AE2(40)	18	67.8



Module de rigidité



Mouillage bitume/bitume

Étape préalable...

...Mais nécessaire avant toute miscibilité

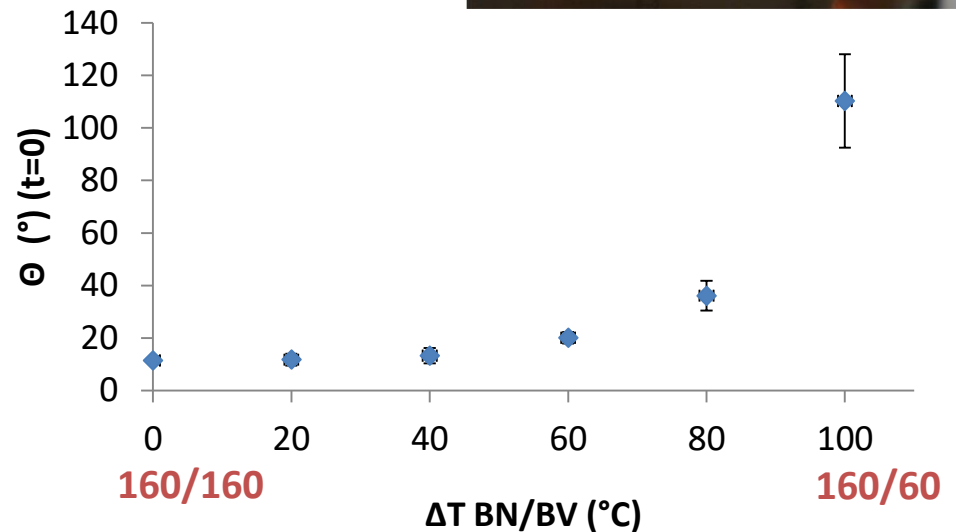
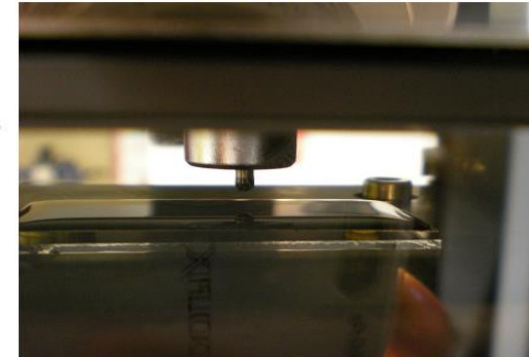
Etalement:

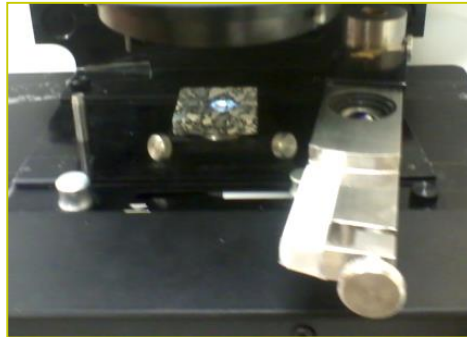
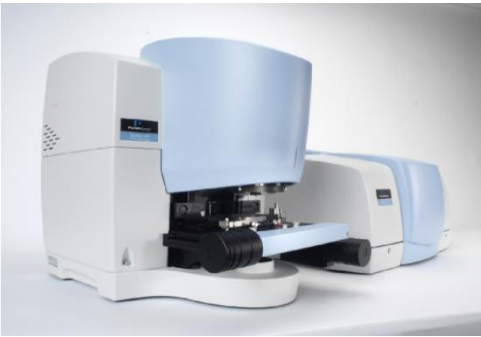
Bitume neuf (BN) sur bitume vieilli (BV)

- BN: 50/70, T°C fixe : 160°C
- BV: 50/70 RTFOT PAV (35/50), T°C variable: 60 → 160°C

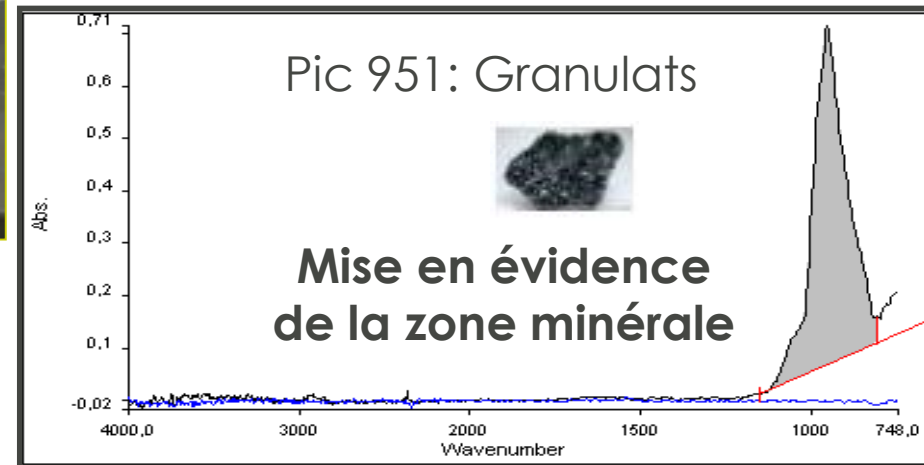
Mouillage optimisé jusqu'à $\Delta T = 40^\circ\text{C}$
 = T°C (agrégat d'enrobés) : 120°C

En accord avec les températures tièdes

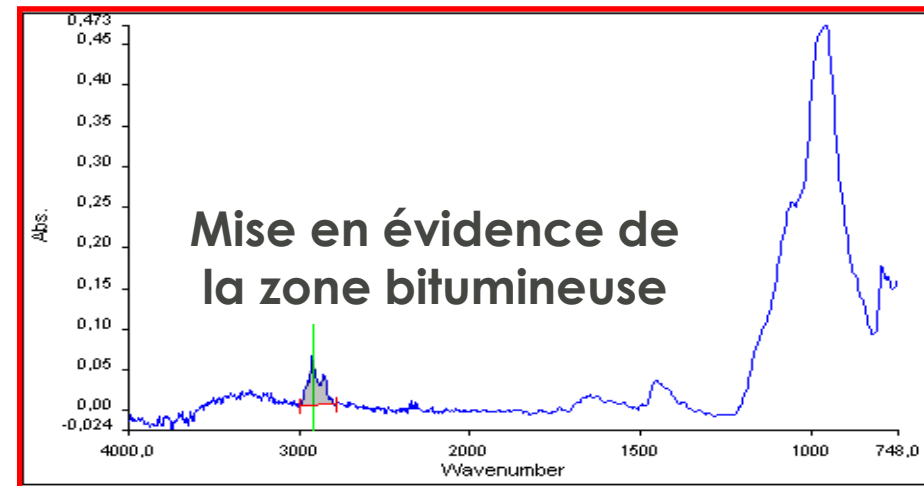
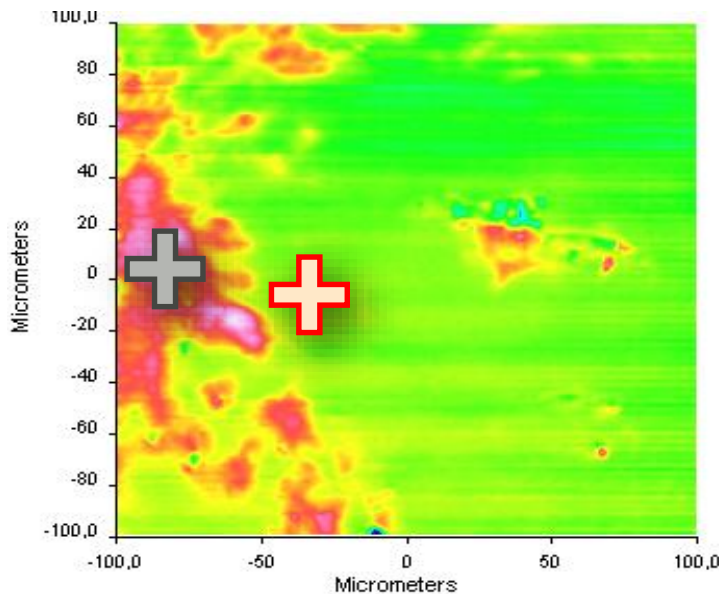


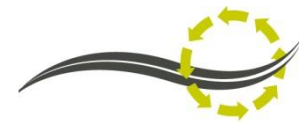


Microscope Infrarouge



Cartographie de l'enrobé LH40-2





MERCI DE VOTRE ATTENTION