

Half Warm Mix Recycling Asphalt in Urban Roads®



ESR6: José Manuel Lizárraga López

Supervisors (Sacyr): Antonio Ramírez and P. Díaz

UGR: María del Carmen Rubio and F. Moreno

Jmlizarraga@sacyr.com - Twitter @jomalilo
aramirez@sacyr.com - Twitter @aramirezr13
 Phone: 91545-5651 Mobile: +(34)646150396

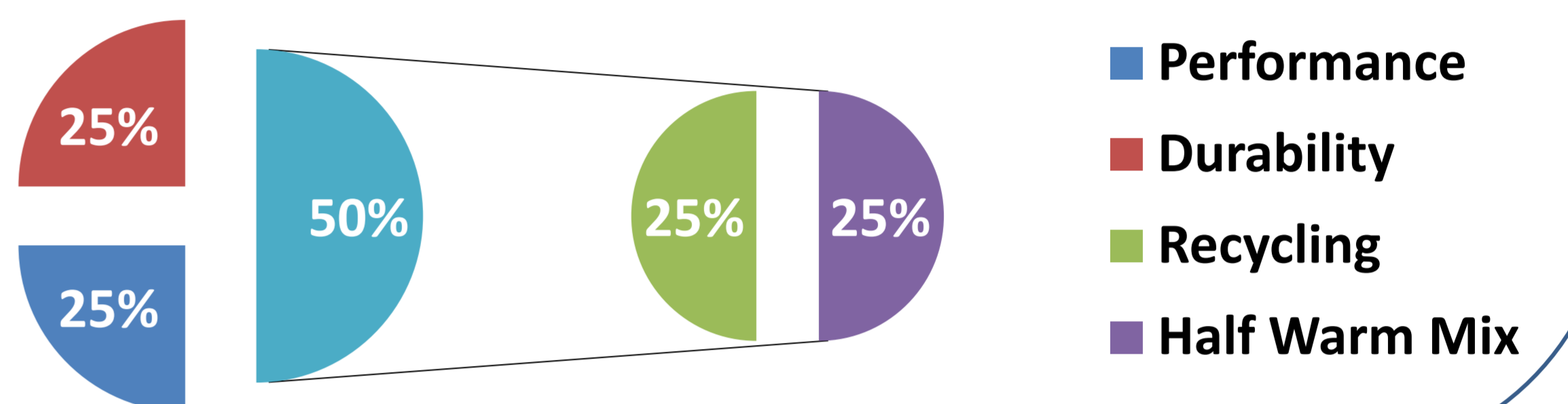
SUP&R ITN

Marie Curie Initial Training Network
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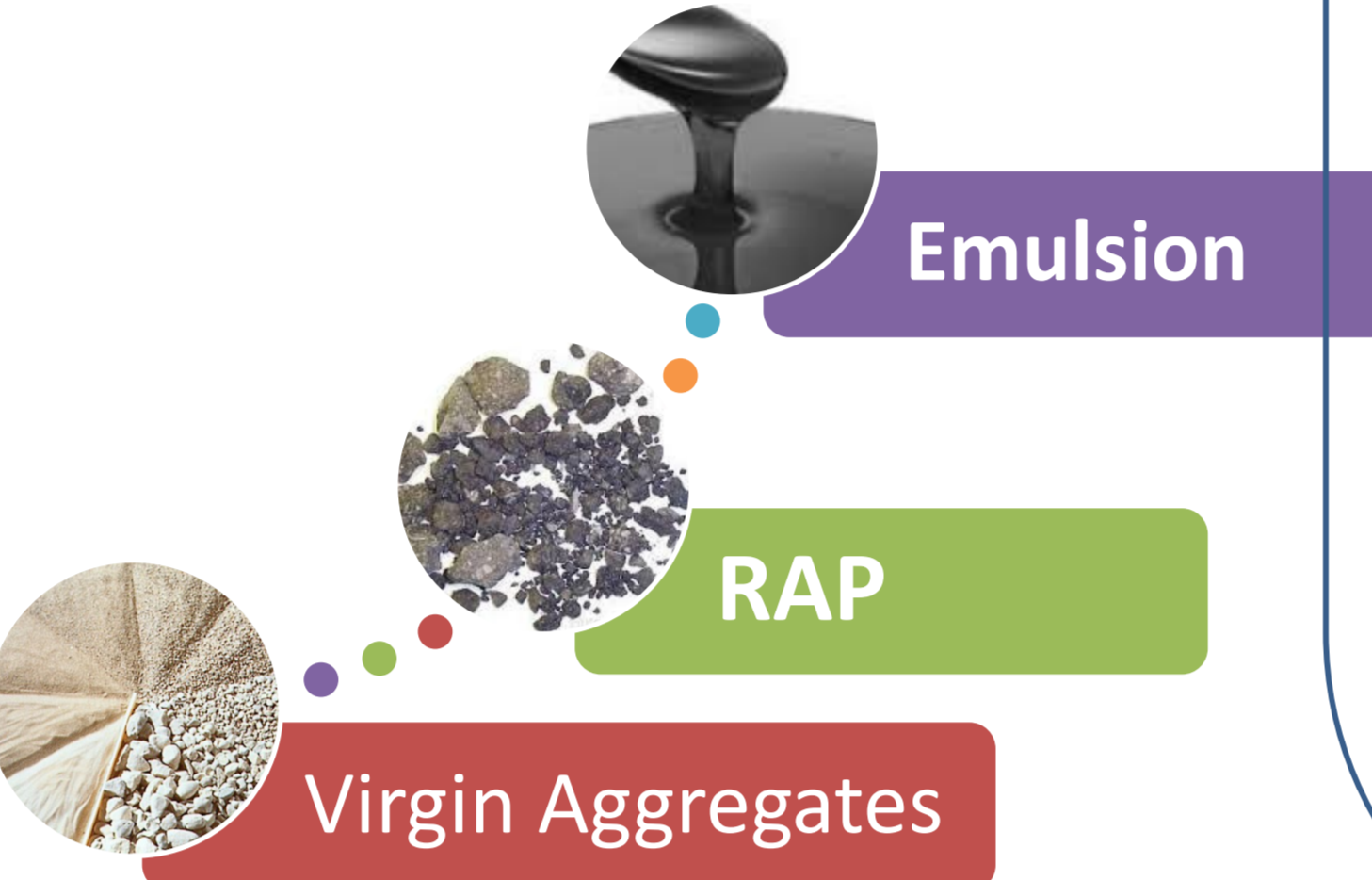
FRAMEWORK

- To study the short and long-term performance of half warm mixes with high contents up to 70% RAP and total recycled contents of reclaimed asphalt pavement (RAP) at temperatures below 100°C and with emulsion.
- Mechanical characterization of these sustainable asphalt mixes for use in binder and wearing courses of urban areas.
- Validation of this sustainable technology under real conditions through the construction of urban test sections.
- Technical, environmental and economic life cycle assessment (LCA) and creation of a life cycle inventory.



INTRODUCTION

Half Warm Mix Recycled Asphalt (HWMRA) is an innovative asphalt concrete material produced at temperatures about 60-70°C lower than those used in the production of conventional mixes, and yet still has the same mechanical performance. The use of these mixes in combination with reclaimed asphalt pavement (RAP) provides energy savings and environmental conservation.



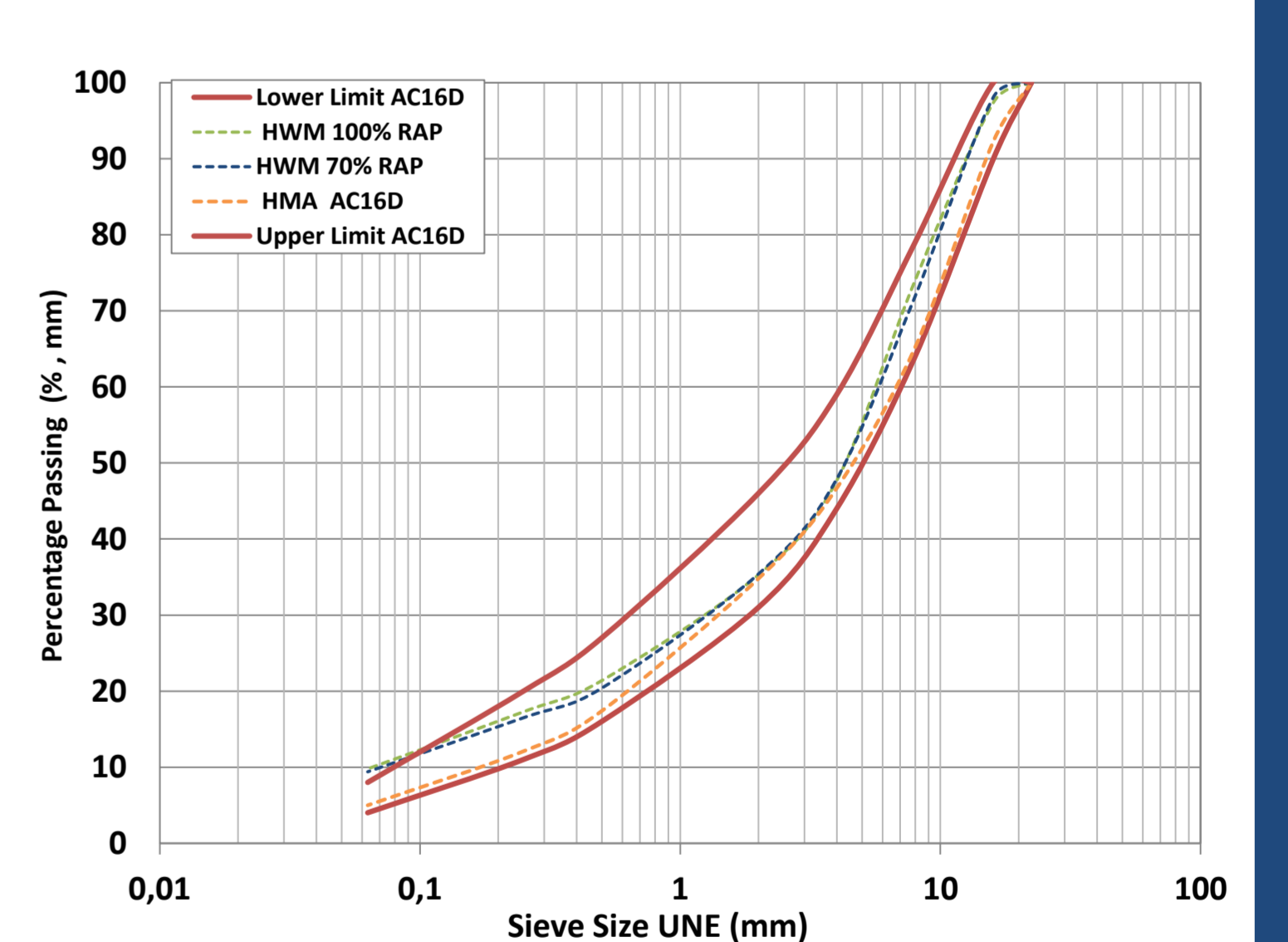
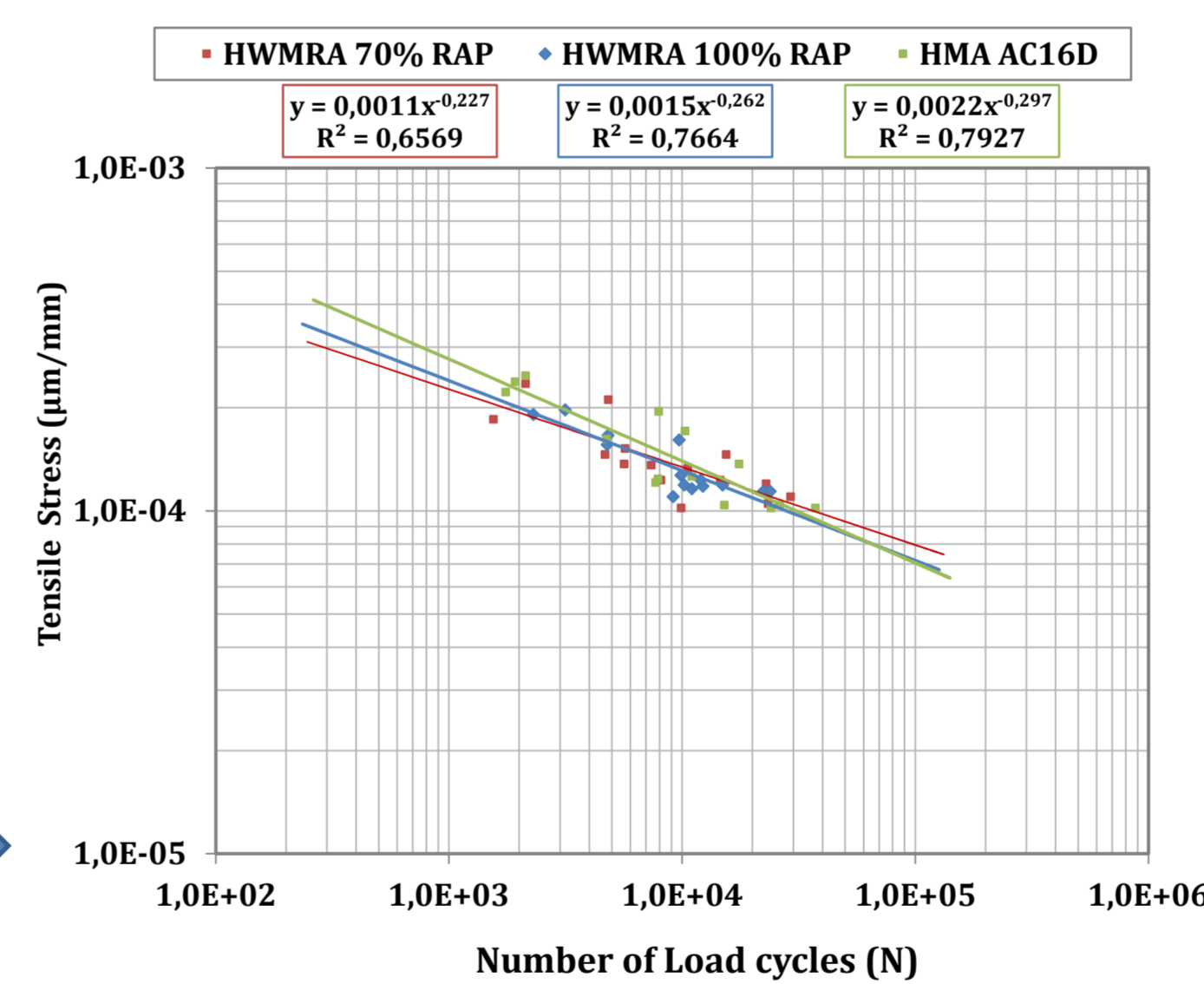
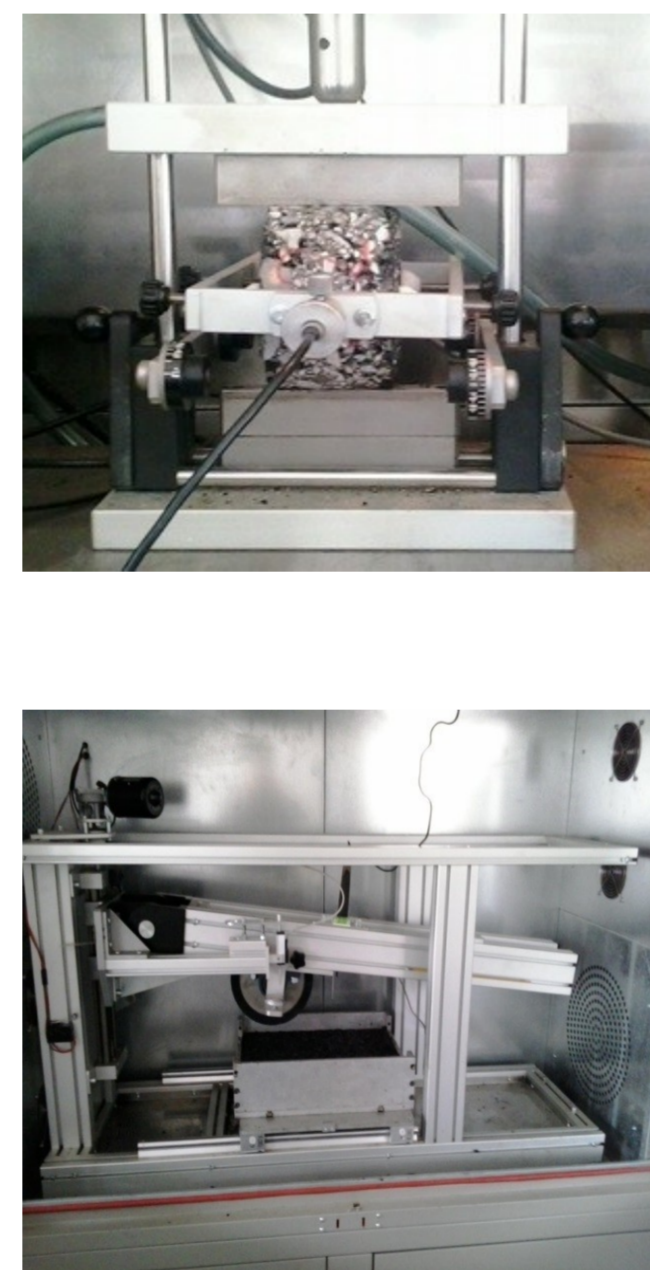
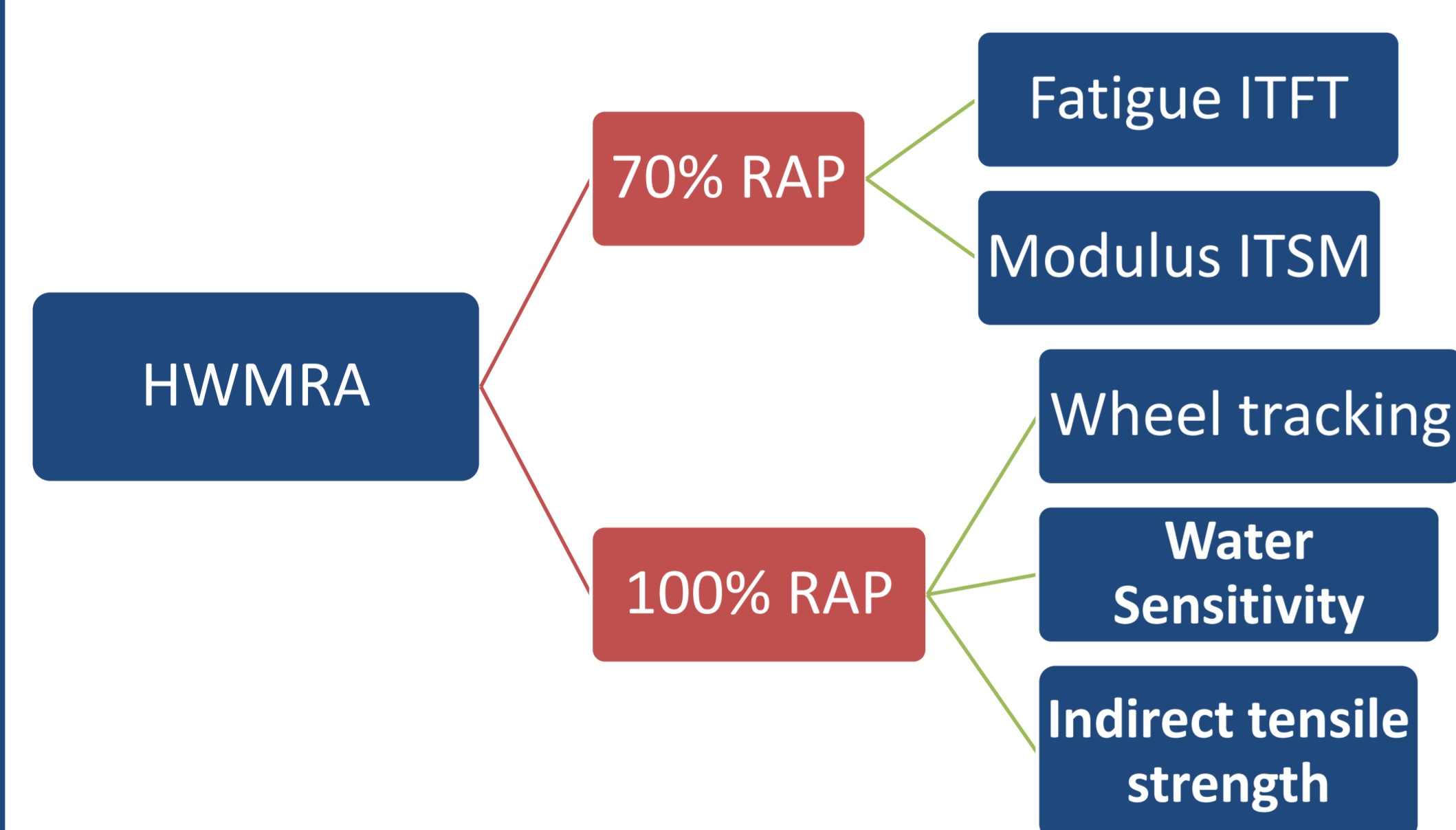
Prototype Asphalt Mixing Plant



OBJECTIVES

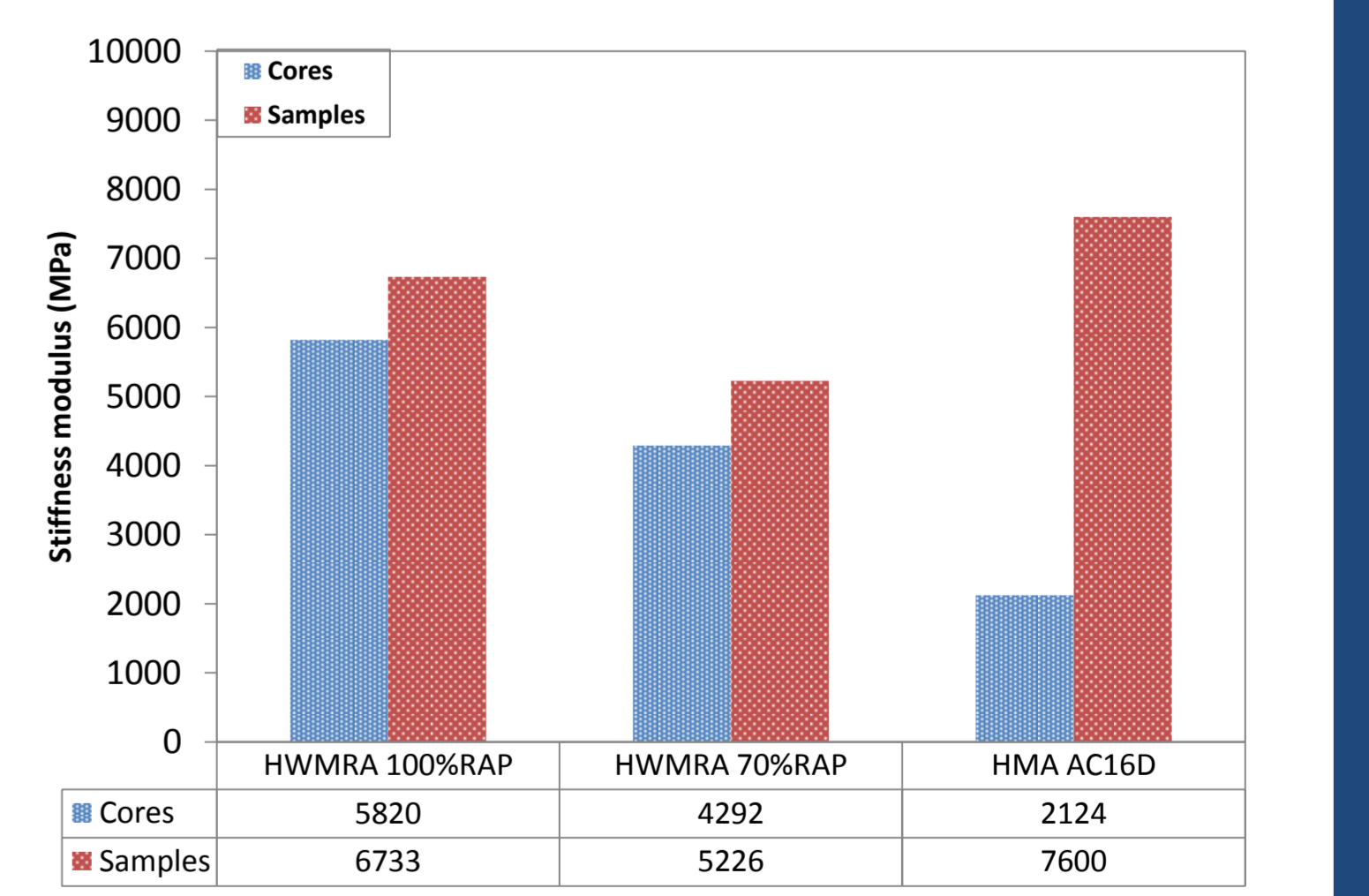
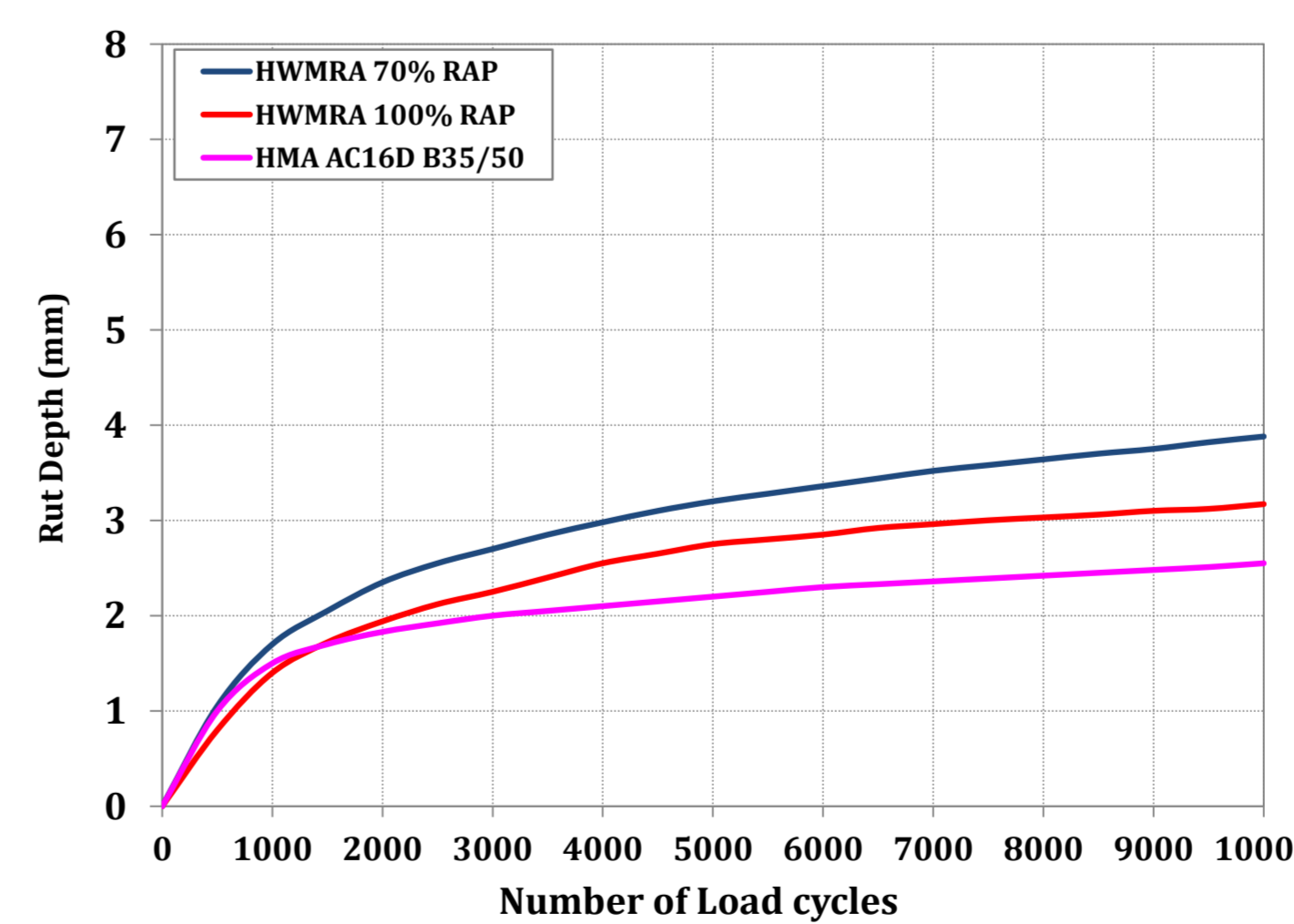
URBAN TEST SECTION

METHODOLOGY AND CASE STUDY



Papers & conferences

- Long-term monitoring of half warm mix recycled asphalt containing up to 100% RAP. TIS Rome –April 2017
- Mechanical performance assessment of half warm mixes containing up to 100% RAP- Journal of Materiales de Construcción
- Half warm mix recycled asphalt containing up to 100% RAP in binder courses of road pavements.



TESTING



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