



# **Modified Vehicle Regulation Overview**

## **Vehicle Modifications and Registration in Victoria**

**August 2015**

# Contents of this Presentation

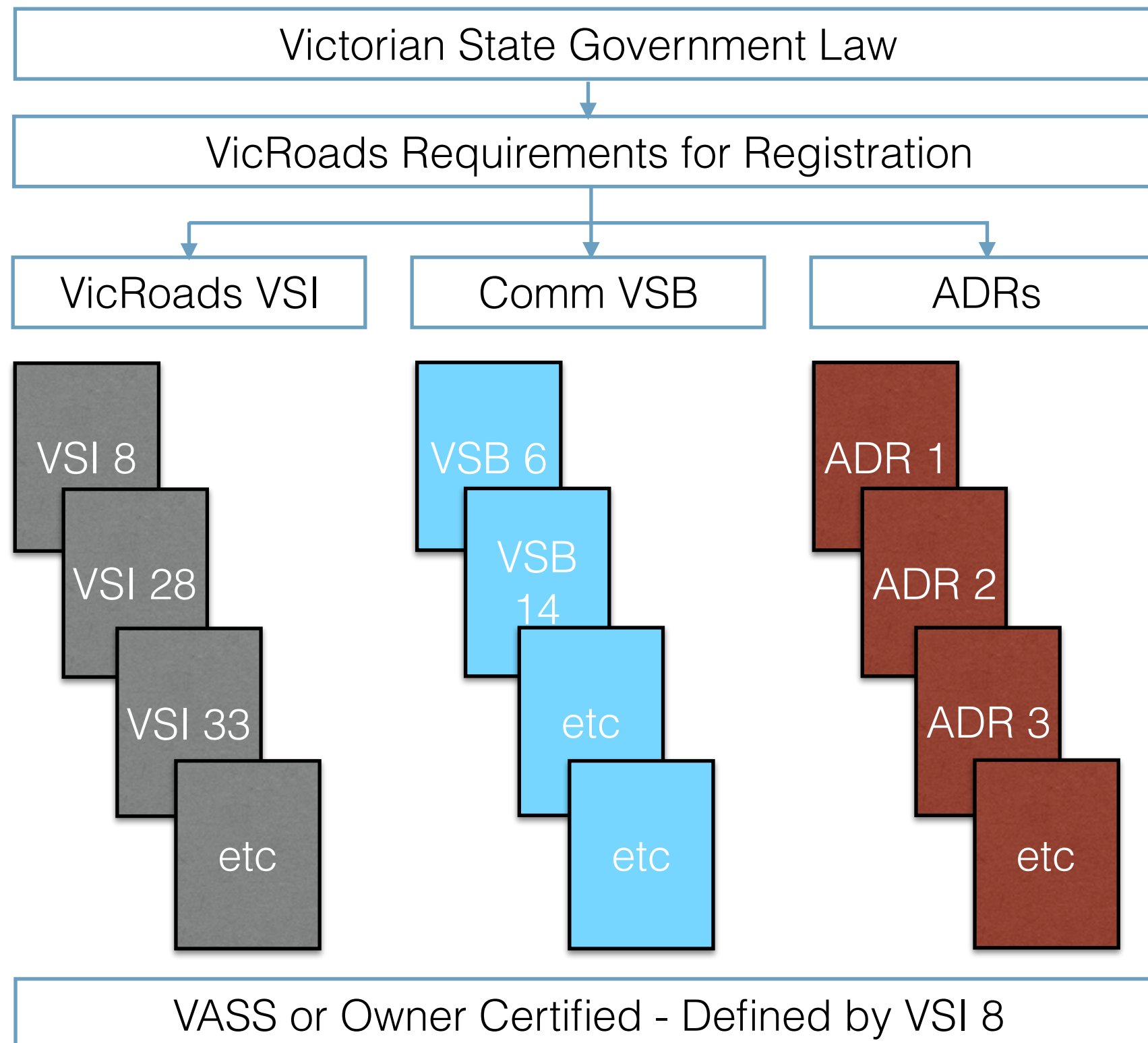
- **This presentation will cover**
  - Categories of vehicle modifications
  - What you have to comply with
  - The process
  - The role of a VASS Engineer
  - Types of assessments
  - The modifications
  - Testing



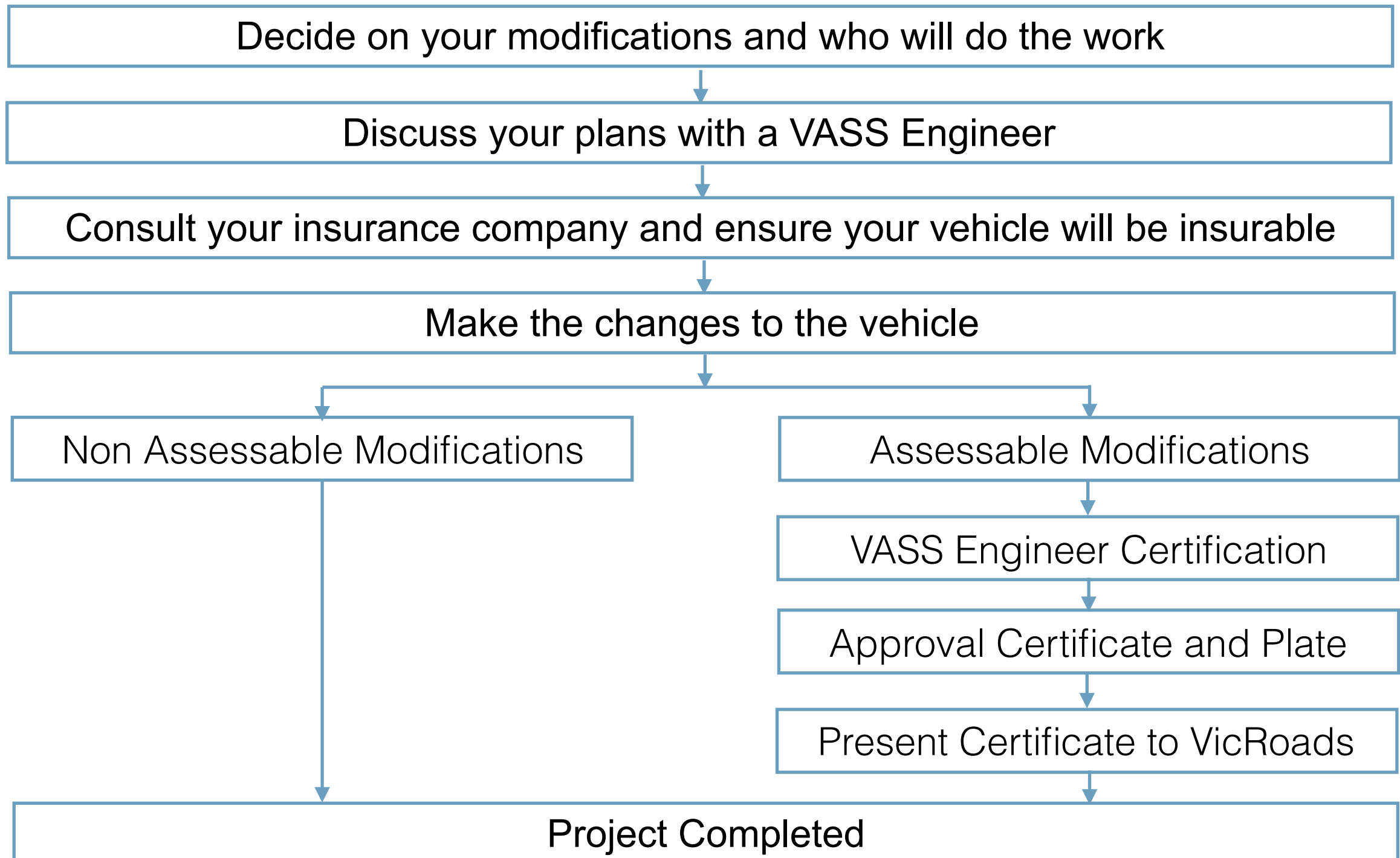
- ***Non Assessable Modifications*** - are defined as those that do not require the issue of a VASS approval certificate
  - They include:
    - Those described in VicRoads VSI 8 and VSI 33
    - Where a modification is generally limited to "bolting on" an assembly or system that was originally offered on your "specific" vehicle make and model
- ***Assessable Modifications*** - are defined as those where a "non standard" modification has been performed, and a VASS Approval Certificate is required
  - These modifications include:
    - Those described in VSI 8 and VSI 33 as requiring a VASS Approval Certificate
    - Where a modification involves the design of structures, adaptation of components, or causes an effect on the structural integrity, ride and handling, performance of the vehicle, or where "non standard" modifications affect an area of a vehicle covered by an ADR



# What You Have to Comply With



# The Process



- ***A VASS Engineer will assess and certify a vehicle based on the following process:***
  1. Identify ***all*** assessable modifications
  2. Address each modification to applicable guidelines and regulations
    - VicRoads requirements
    - Commonwealth codes
    - Applicable ADRs
  3. Document evidence for each assessable modification to VicRoads requirements\* through:
    - Compliance with specific requirements
    - Testing
    - Calculations or simulations
    - Reference to a comparator vehicle

\* Note that an “opinion” is not adequate as evidence



# Types of Assessments

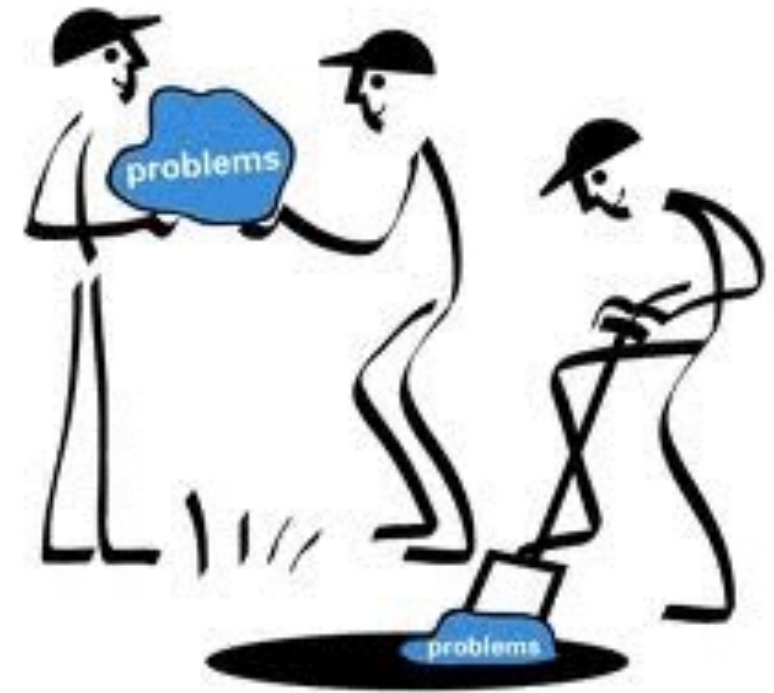
- ***There are several different types of light vehicle assessments performed by VASS Engineers***
  - Modified Production Vehicles
  - Individually Constructed Vehicles and Street Rods
  - Club Permit Scheme (CPS) “M” plate assessments
  - Imported vehicles (Registered Automotive Workshop Scheme)
  - Personally Imported Vehicles



*Just looking at this photograph identifies a range of assessments that would be required for this vehicle*

# The Modifications

- ***Common modifications to vehicles are:***
  - Engine conversion or turbo/supercharging
  - Change to transmission or axle
  - Steering or suspension changes
  - Conversion to convertible
  - Roll cage installation
  - Seat or seat belt anchorage changes
  - Structural changes to chassis
  - Assessments of repairs
  - Rim or track changes in excess of state registration requirements
  - Assessment of any ADR affected area of the vehicle that has been modified in a way that makes the vehicle different to a condition offered as a standard option for the vehicle (lighting and lamps, steering wheels, etc)





- ***Some of the common tests performed are:***
  - ***Brake Test*** - VicRoads accepts a truncated version of the ADR for assessment of modified vehicles. It is based on fade and effectiveness tests from ADR 31 and is documented in VSB 14, Section LG
  - ***Sound Emissions Test*** - A static sound test can be used, which is part of ADR 83 and is documented in VSB 14, Section LT4
  - ***Beaming and Torsion Chassis Test*** - Is used for assessing the comparative stiffness of modified chassis, mostly for conversions to convertibles. The test is documented in VSB 14, Section LT1
  - ***Lane Change Handling Test*** - A test used for vehicles where mass distribution or chassis geometry has changed to assess handling stability. This test is documented in VSB 14, Section LT2
  - ***Engine Emissions Test*** - VicRoads accepts testing to IM240, which is an extract from ADR 37. The test is documented in VSB 14, Section LT3