

2050 Modular Development Plan for Electricity Highways Systems

From “MoDPEHS 2050.....

.....to e-Highway2050”

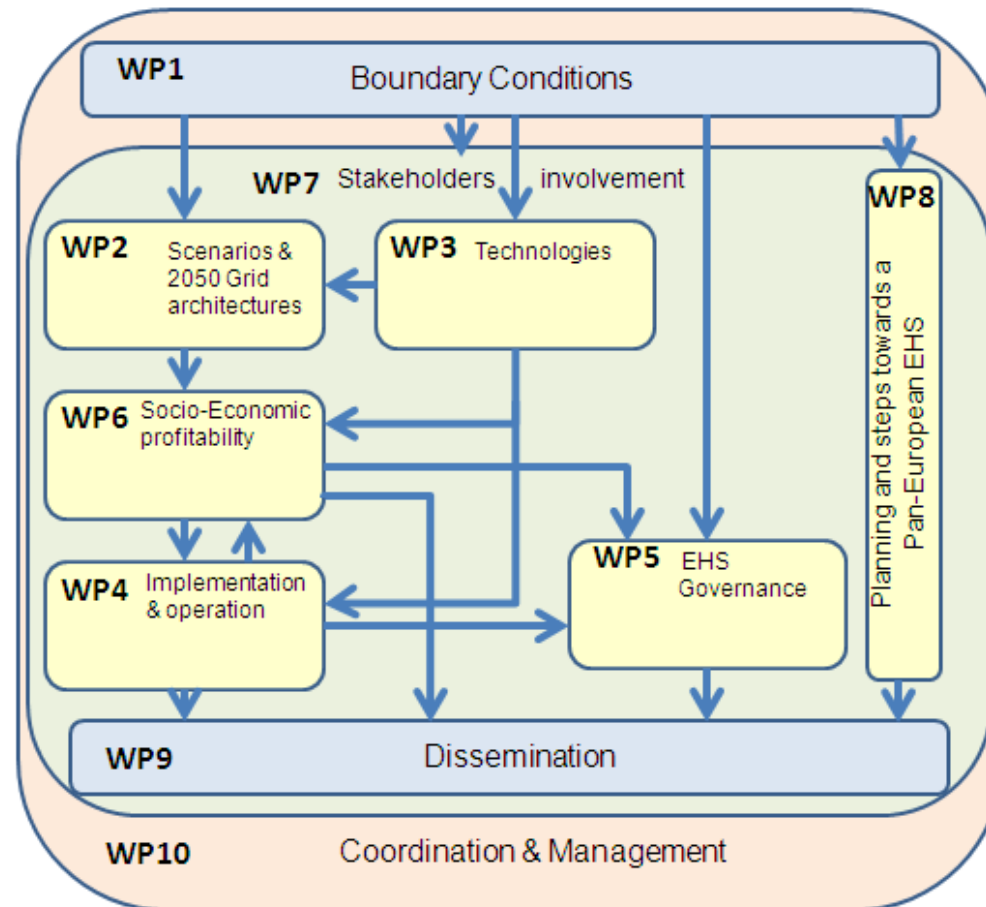
Jean Versaille
Chairman of the SDC

Florence Forum 15-16/05/2013



Reliable Sustainable Connected

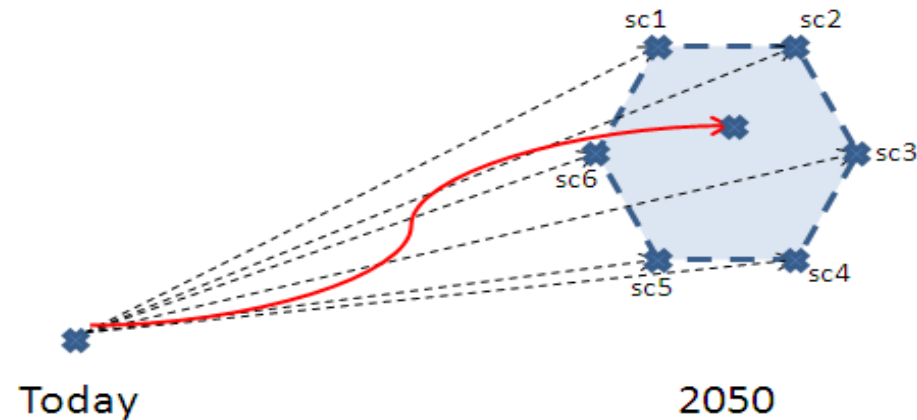
The structure of the project



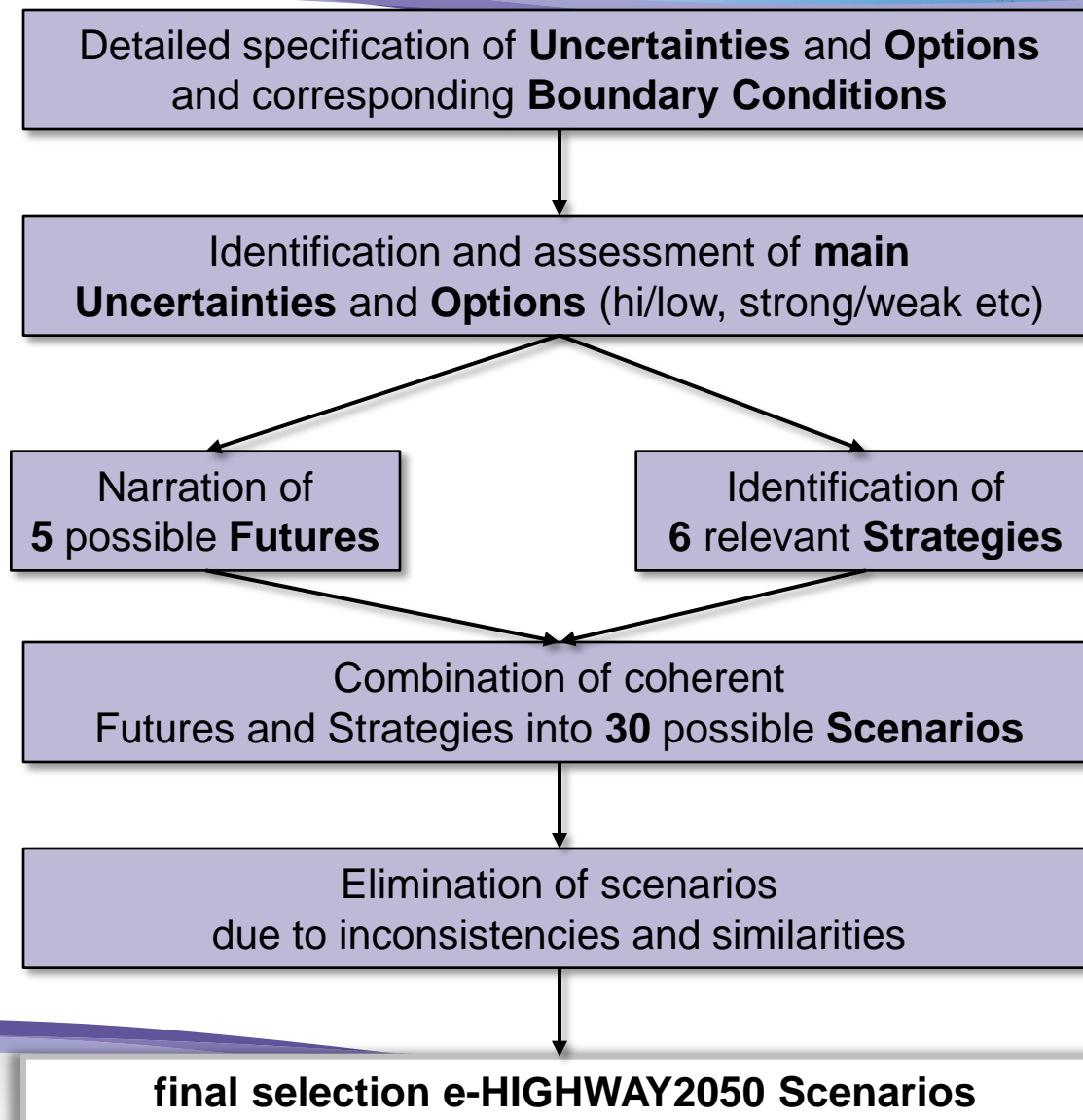
Some definitions, as introduction on scenarios

*"e-Highway2050 scenarios are neither predictions nor forecasts about the future. We do not conclude that one scenario will be more likely to happen than another, nor that one scenario is more preferred or "better" than another. **Rather, each e-Highway2050 scenario is one alternative image of how the future of European Electricity Highways (EHS) could unfold.**"*

Scenario = { Σ criteria }



Methodology for the Scenario selection



Scenario selection

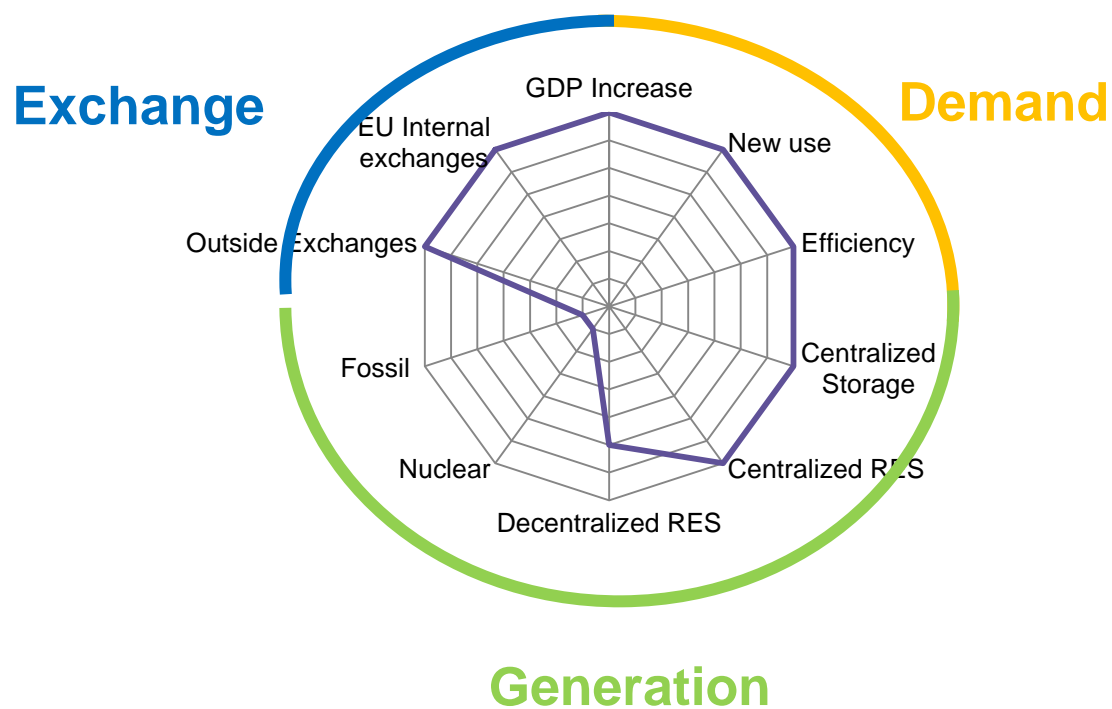
5 futures x 6 strategies = 30 possible e-HW scenarios:

Futures	Strategies	Strategy 1 MARKET LED	Strategy 2 LARGE SCALE RES SOLUTIONS	Strategy 3 LOCAL SOLUTIONS	Strategy 4 100% RES	Strategy 5 NUCLEAR & CCS	Strategy 6 WITHOUT NUCLEAR
Future 1	Green Revolution	*	*	*	*	*	*
Future 2	Green EU	*	*	*	*	*	*
Future 3	EU- Market	*	*	*	*	*	*
Future 4	Big is beautiful	*	*	*	*	*	*
Future 5	Small things matter	*	*	*	*	*	*

Elimination of scenarios with contradicting assumptions:

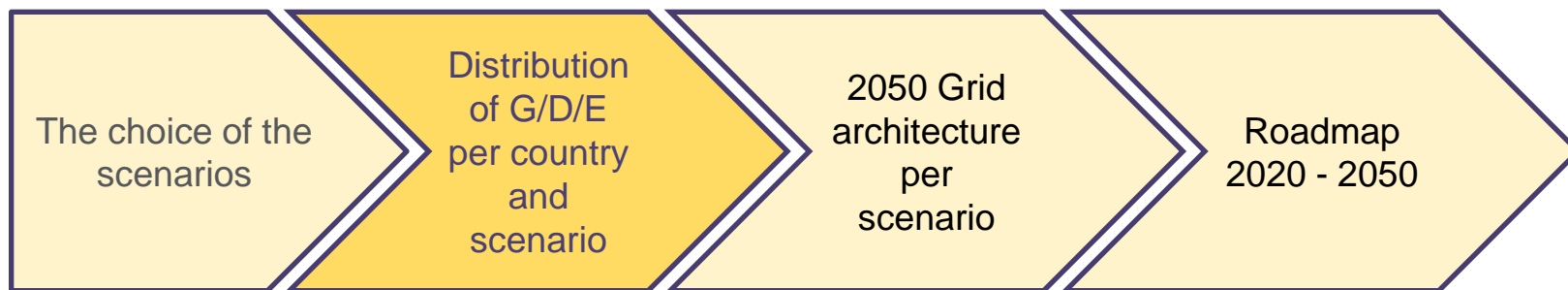
Futures	Strategies	Strategy 1 MARKET LED	Strategy 2 LARGE SCALE RES SOLUTIONS	Strategy 3 LOCAL SOLUTIONS	Strategy 4 100% RES	Strategy 5 NUCLEAR & CCS	Strategy 6 WITHOUT NUCLEAR
Future 1	Green Revolution	NUC				NUC	
Future 2	Green EU	NUC / CCS				CCS	CCS
Future 3	EU- Market		No Policy		No Policy	CCS	CCS
Future 4	Big is beautiful		CCS	Non- Logical			
Future 5	Small things matter	NUC	Non- Logical			NUC	CCS

Scenario selection



Next step

- The consultation of Stakeholders on the choice of the scenarios:
 - with the web-site : www.e-highway2050.eu
 - through a dedicated meeting organized by the project.
 - **through the Electricity Highway Stakeholders Platform EHSP** (to be confirmed by EC DG ENERGY).
- The distribution of G/D/E per country and per scenario.





Thank you for attention!

Jean Verseille
Chairman ENTSO-E SDC

Scenario selection

5 relevant e-HW2050 scenarios:

Futures	Strategies	Strategy 1 MARKET LED	Strategy 2 LARGE SCALE RES SOLUTIONS	Strategy 3 LOCAL SOLUTIONS	Strategy 4 100% RES	Strategy 5 NUCLEAR & CCS	Strategy 6 WITHOUT NUCLEAR
Future 1	Green Revolution	NUC	x-1	x-2 -->16	x-3	NUC	X-4
Future 2	Green EU	NUC / CCS	X-5	x-6 -->16	X-7	CCS	CCS
Future 3	EU- Market	X-8 (BAU)	No Policy	x-9 -->16	No Policy	CCS	CCS
Future 4	Big is beautiful	X-10	CCS/X-11	Non- Logical	x-12 -->11 & 16	X-13	x-14
Future 5	Small things matter	NUC/X-15	Non- Logical	X-16	x-17-->11 & 16	NUC	CCS