

eDAS - iCOMPOSE - INCOBAT

Project Clustering

– Concept, activities and expected outcome

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- Clustering Concept
- Planned Activities
- Expected Outcome
- Organization
- Cluster Exchange Content

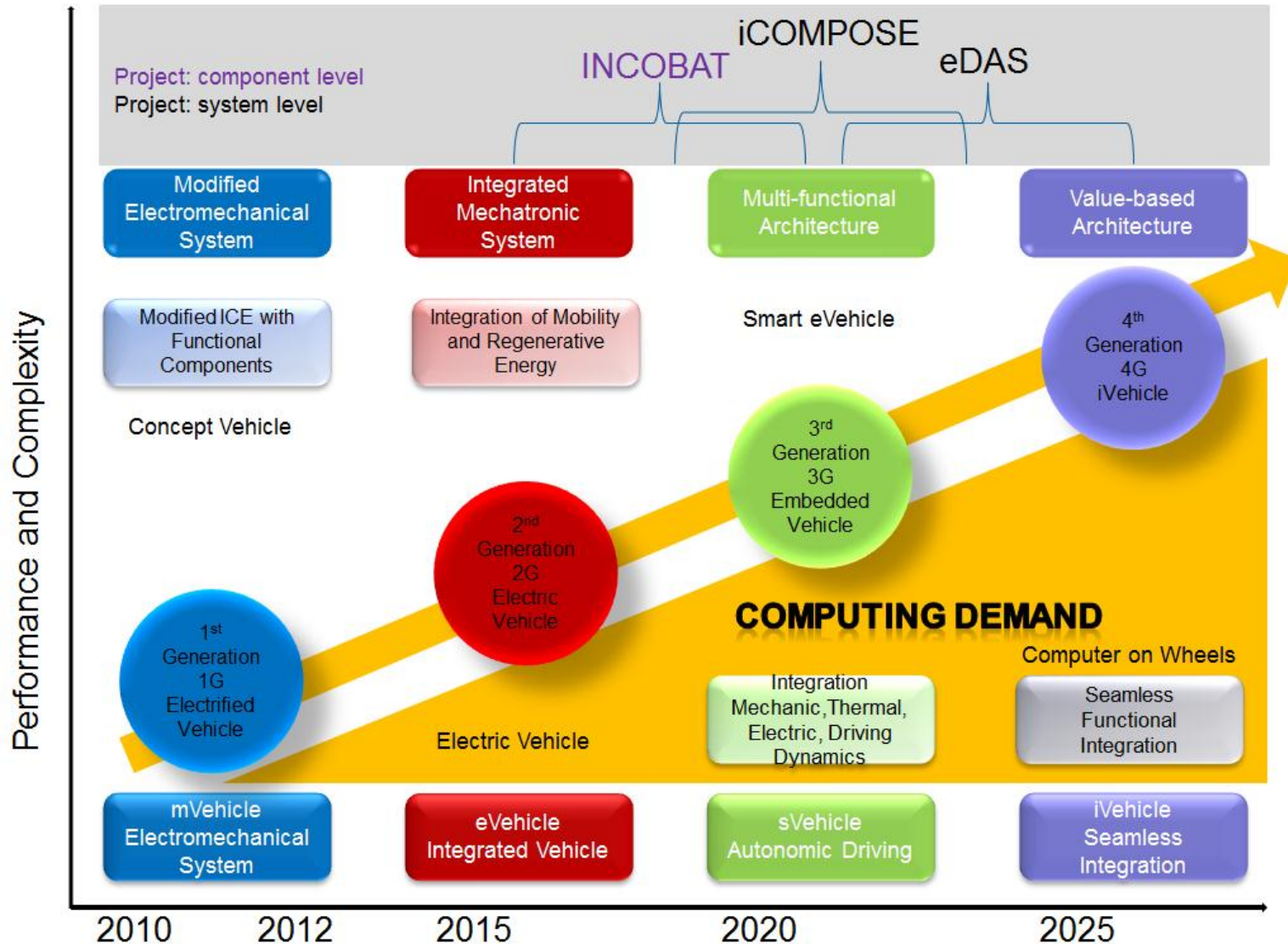
- Vision and mission of the project cluster as a collaboration platform

Vision Statement (for all participating projects in the cluster)

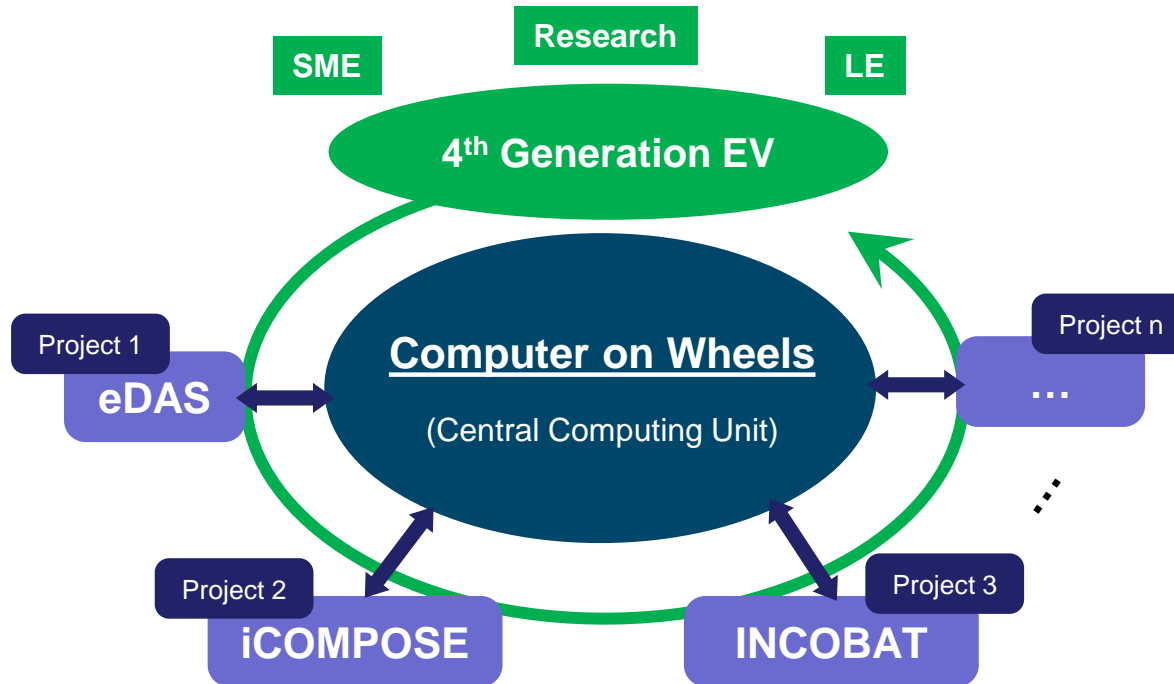
- Foster information exchange for the alignment of R&D activities to achieve optimal resource utilization and gain synergistic technical understanding for future EVs
- Coordinate joint dissemination/ marketing events to achieve higher visibility and thus greater market impact

Mission Statement (for the "customers": the EC, industrial initiatives and standardization bodies etc.)

- Provide the European Commission and relevant industrial initiatives insight into some major challenges faced by future EVs as basis for strategic decisions
 - Comprehensive energy management
 - Performance potential of vehicle electrification
 - Central computing platform
- Contribute to the evolution of existing standards for standardization bodies, as well as preparation and proposing new solutions/ technologies for standardization



Graphics based on graphic from ARTEMIS POLLUX project



	eDAS	iCOMPOSE	INCOBAT
Main Topic	Thermal / electrical Management of the EV	Comprehensive energy management using cloud-sourced data for multiple motor and multiple storages EVs	Battery management platform
Target EV Generation	4 (3)	2, 3	2, 3
Expected Maturity	Long term research	Medium to short term research	Medium term research
Primary Market Scope	Research	Application (OEM)	Supplier (Tier 1,2)

Central Computing Unit (CCU) for different EV Generations, component applications and target markets

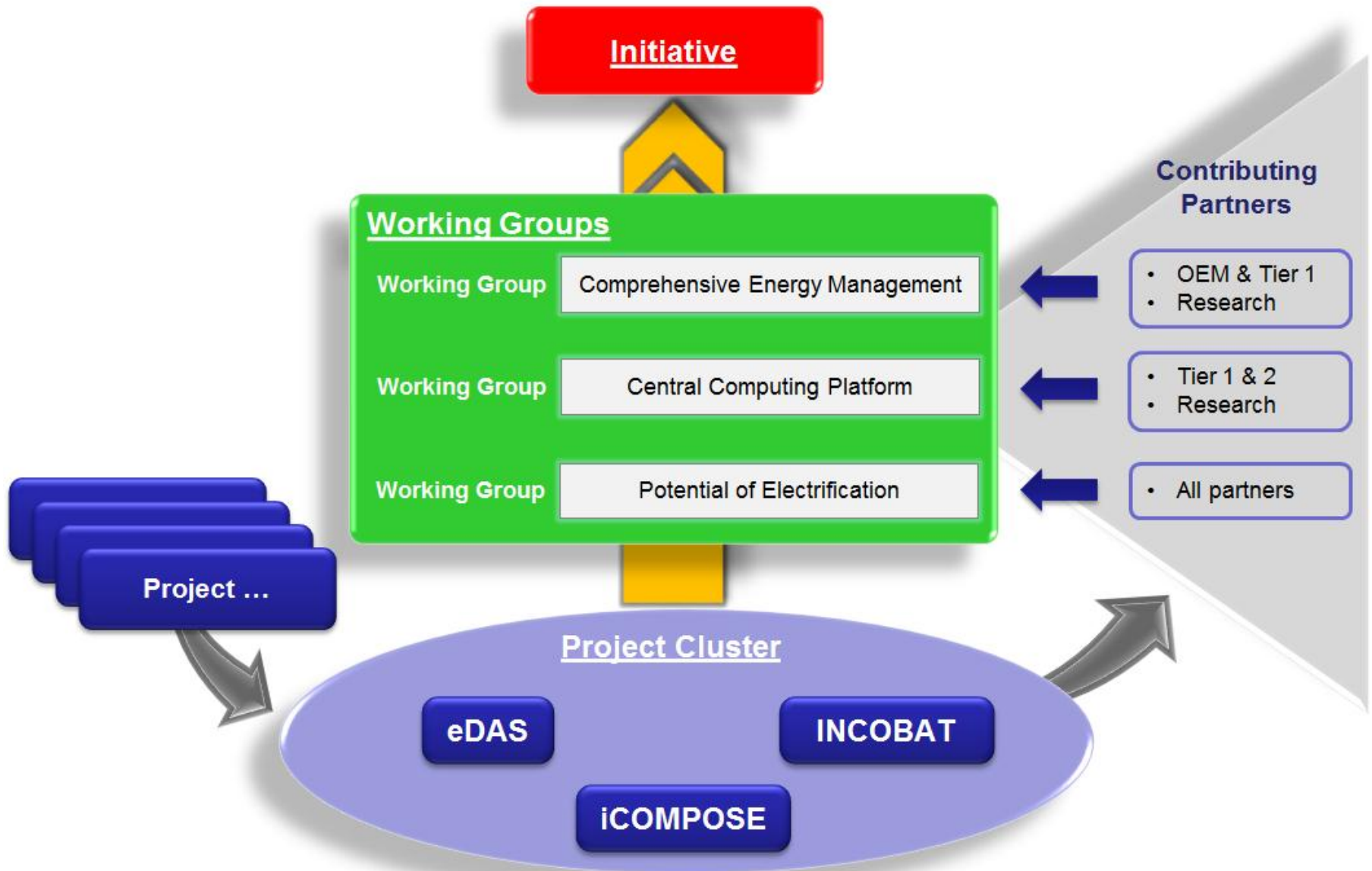
- Addressing key challenges faced by E-Mobility and achieving high visibility through strategic coordination:
 - Investigating and developing comprehensive energy management system for future electric vehicles
 - Further specification and development of the central computing platform that will be used in all three projects
 - Strategic and technical synchronization for all clustered projects
 - Point out directions for future electrification
 - Present a common* view on the potential of vehicle electrification
 - Planning and organizing joint dissemination/ marketing activities for greater market impact and increased visibility

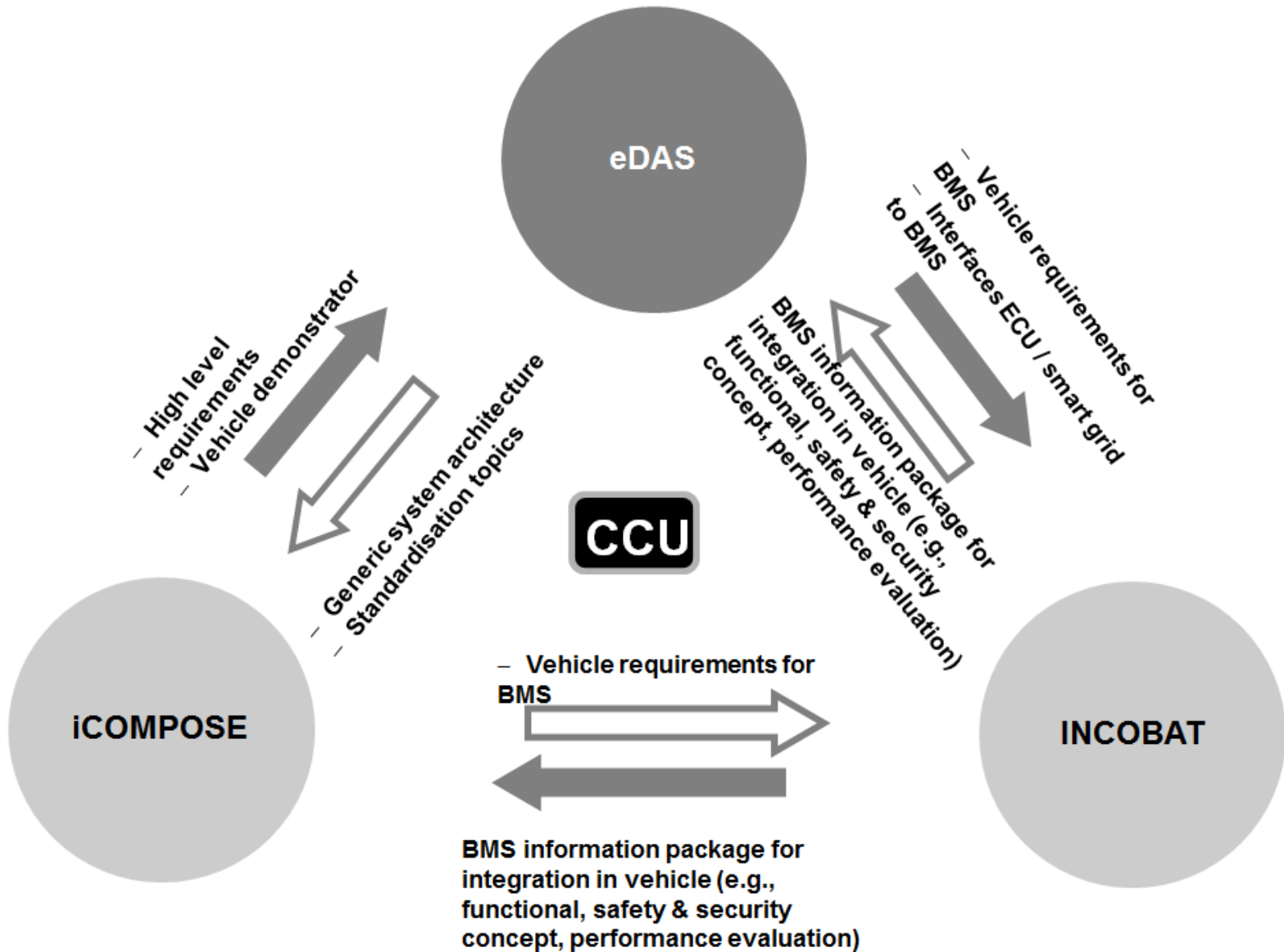
* regarding the project cluster

- From the technical perspective:
 - Know-how and possible solutions on holistic energy management for future electric vehicles
 - Based on the outcome of three complementary projects with focus on component, system and vehicle level respectively
 - Preparation and proposing the central computing platform for standardization
 - Input for standardization bodies (e.g. ISO, AUTOSAR, ASAM) on topics including safety, reliability, control architecture etc. for the industrialization of electric vehicles
 - Draft of a comprehensive performance potential analysis of vehicle electrification

- From the perspective of dissemination and visibility:
 - Joint activities on major European e-mobility platforms and relevant events:
 - European Green Cars Initiative, eCarTec Munich etc.
 - Extended cooperation network for all partners involved

- Joint deliverables have been identified during project preparation phase and a *process 4 exchange has been defined*
- Dedicated clustering meeting every 3 months during the course of the projects
 - The coordinators of each clustered project represent the corresponding consortia
 - Objective of this meeting is to align and plan technical and dissemination activities
 - The meeting may take place as phone conference or face-to-face meeting, the outcomes will be distributed within the consortia
- Draft of a guide line for clustering activities at the beginning of the project and constant alignment during project course
 - All clustered projects share a common road map
 - The progress of the clustering activities will be constantly monitored, and the initial guide line will be modified and extended if required





System level	eDAS (3./4. Generation)	<ul style="list-style-type: none"> ⇒ Targets parameter (integration, cost, weight, performance, safety, reliability etc.) ⇒ Generic system architecture ⇒ Standardization topics 	<ul style="list-style-type: none"> ⇒ Requirements (functional, safety, security etc.) on vehicle level for HV Battery ⇒ Targets parameter (integration, cost, weight, performance, safety, reliability etc.) ⇒ Interfaces ECU / smart grid to BMS 	⇒
System level	<ul style="list-style-type: none"> ⇐ Requirements (functional, safety, security etc.) on vehicle level for HV Battery ⇐ Load & Mission profile ⇐ Vehicle demonstrator 	iCOMPOSE (3. Generation)	<ul style="list-style-type: none"> ⇒ Requirements (functional, safety, security etc.) on vehicle level for HV Battery ⇒ Targets parameter (integration, cost, weight, performance, safety, reliability etc.) ⇒ Load & Mission profile 	⇒
Component level	<ul style="list-style-type: none"> ⇐ Functional integration concept ⇐ Safety integration concept ⇐ Performance estimation for different strategies 	<ul style="list-style-type: none"> ⇐ Functional integration concept ⇐ Safety integration concept ⇐ Performance estimation for different strategies ⇐ Simulative results for pre-validation 	INCOBAT (2./3. Generation)	⇒
??	⇐	⇐	⇐	?? (open for further projects)

Project X provides to (⇒) Project Y

