

FP7 Support Action - European Exascale Software Initiative

DG Information Society and the unit e-Infrastructures



Addressing the Challenge of Exascale Towards Exascale roadmap implementation

European Exascale Software Initiative EESI EESI2 – Final Conclusions

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EESI2



EESI roadmaps, vision and recommendations *need to be monitored, updated*, on a dynamical way

Key issues to be addressed are pointed out in EESI1 ... Now EESI2 must recommend R&D CONCRETE Proposals how to tackle them

Extend, refine, and update Exascale cartography (directly : for better analysis of each WG) and roadmaps fro tools, methods, R&D and industrial application YES WE DID!

ed WG JII software,

With a Gap Analysis. new 🔜 Including WG-

Addre

- UC



Jues": Data management and exploration, **Uncertainties** *x* Performance, Resilience, Disruptive technologies



Investigation on funding scheme and opportunities, education, co-design centres, international coordination



Operational **Software maturity** level methodology, evaluation

EESI2 recommendations



The 3 EESI PILLARS for Exascale



EESI2-Final-Conf-Dublin-29May2015-PhR







Real Concrete Implemented Efficient Exascale Applications

EESI2-Final-Conf-Dublin-29May2015-PhR

NEXT EESI2 VISION



CALE

- **Exascale imposes to do something different and differently**
- **Exascale needs breakthroughs in several domains (Algorithms, Algebra, Uncertainties, Couplers, Meshing ...)**
- Exascale will not be a business, and will not develop if EFFICIENT INDUSTRIAL applications can not become reality (Not
- ES YOU CAN! So for improving European Industrial disruptive in its funding strat

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> Take in accourd

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icative" industries

- programs must be supported at once
- ... must be adapted to each program Cr
- CoE must be adapted to this disruptive strategy (larger funds)



HOPE THE BEST for the FUTURE to EXASCALE Remind you need a THINK TANK

Remind you have to implement **SCALABLE EFFICIENT REAL INDUSTRIAL APPLICATIONS** on very complex architectures

THANK YOU to ALL EXPERTS, all EESI contributors I hope your recommendations will be applied



THANK YOU

