

Informatics for All

Action Plan – March 2019

To progress developments on *Informatics for All*, it is desirable to have a carefully considered plan that will lead ultimately to widespread acceptance and implementation of the strategy. This document constitutes an embryonic Action Plan that is designed to achieve that end.

The Plan is heavily based on two main documents: the report of the *Informatics for All* Workshop that took place in Brussels on 20th February 2019; and the *Informatics for All* strategy document that was launched in Brussels in March 2018. Of these, the Workshop report mentions the desirability of formulating an Action Plan but cautions on including time elements so that progress can be monitored. Accordingly, the skeleton plan set out below identifies actions that should be carried out in the short term as well as actions that will take longer to achieve.

1. Short-term actions (to be completed within 6 months)

Informatics for All web site

Such a web site should be set up. This will draw attention to the initiative, provide a focus for activity and provide an important vehicle for communication. There should be a link to this from the web sites of Coalition members, and it should reflect the European origins of *Informatics for All*. The site should, at least, explain the initiative, provide links to relevant reports and documents, and have sections addressing a range of important topics. Included in this should be topics such as:

- Why is Informatics important as a school level subject?
- What is Informatics (and in particular why are digital skills not enough)?
- What high level curricular guidance (although countries have responsibility for their own curricula) can be provided?

Action 1, produce a draft website for the *Informatics for All* Coalition to approve and register the name “Informatics for All” (Informatics Europe)

The Informatics for all Organization

The structure and the composition of the organization needs to be reviewed. There are two main aspects of this:

- The Steering Committee should be broadened and strengthened. Should consideration be given to terms of office?
- The Coalition itself should be expanded with Coalition members being committed to the promotion of Informatics for All. Are there other relevant responsibilities for Coalition members?

Action 2, discuss how to enlarge the Coalition and its governing boards (Coalition

Steering Committee)

The need for academic research

To promote relevant research there should be a succinct statement that covers: creating excitement, even passion, for Informatics; the use of Informatics to provide a deeper education in other disciplines; approaches that would lead to including new topics such as machine learning into the schools curriculum and generally keeping the curriculum exciting and topical; aligning the maturity of pupils with attaining competencies; issues regarding teachers and teacher education.

Having produced this, approaches should be made to significant computing education conferences (such as ITiCSE) asking them to expressly include this *Informatics for All* related research in their calls for papers.

Action 3, produce communication content stressing the importance of doing academic research on how to teach Informatics in schools (methods, tools, curriculum, ...) and pointing to relevant research venues (ACM and IE to lead)

Resources

Work should be done to assemble a repository of references to resources and materials that might be used by those pursuing implementation.

Action 4, initiate the development of a suitable repository (CEPIS to lead)

Collaborators

Contact should be made with PISA about embarking on an assessment of Informatics education. In this regard, there should be collaboration with code.org, the EU and other such agencies.

Action 5, bring forward to PISA the idea of Informatics testing as a section within the Science test (Informatics Europe)

2. Medium term activities

Progress on all aspects of this Action Plan should be reviewed every 6 months to check on activity and to revise, update and refine the Plan as necessary with a revised set of short-term aims.

A range of medium to long term challenges remain. These include but are not restricted to

- Giving encouragement to the development of Informatics Interest Groups (IIG) within countries/regions, that are aligned by language or culture or maturity etc. , their purpose being to advance Informatics education within their region of interest. (CEPIS to lead)
- Making contact with the EC (after the election) and other such bodies with a view to attracting their support. That might lead to funding opportunities, e.g. to support teacher education, but also to the EU issuing calls to meetings to support developments and providing funding to augment regional support and addressing language issue. (ACM to lead through EUTPC)
- Addressing the various teacher issues, including: demonstrating that, through appropriate approaches to integration, a deeper understanding and a deeper education in each discipline can result; addressing initial teacher education as well as supporting the ongoing updating of teachers of Informatics through teacher education; creating support networks for teachers both at a local and a pan European level (e.g. at ITiCSE) on curriculum, teaching methods/content/tools (Steering Committee to lead)

Overarching objective:

- Ensuring that Informatics is recognised across Europe as an important science and a foundational discipline