



**BCS DIRECTION OF TRAVEL
CPHC CONFERENCE
ORIGINALLY DELIVERED AT
UNIVERSITY OF BATH
APRIL 2022**

20 April 2022

Panel

- Holly Porter – Membership Director BCS
- Kevin Chalmers – University of Roehampton and chair BCS Accreditation Committee
- Alastair Irons – University of Sunderland and BCS Vice President and Chair Academy Board of Computing
- Paul Martynenko – past President BCS 2017-18 and is a former VP and Technical Executive for IBM in Europe, chair of the steering committee of the BCS Review of Computer Science Degree Accreditation and chair BCS Registration and Standards Committee

Objectives

- Update on BCS direction of travel
- Show progress and how we are addressing concerns raised in summer 2020, particularly with accreditation
- Background to Academy Board
- Overview of BCS offer for HEIs
- Discuss aspiration to get community to speak with one voice
- Get your views and get you involved
- Opportunity for Q&A

MAKING IT GOOD FOR SOCIETY

MEMBERSHIP

We promote and support the growing and diverse community of IT and digital professionals committed to making IT good for society

Our members are at the heart of our community.

We support them to gain the skills, expertise and connections they need to develop their career, shape the digital future and be recognised as trusted professionals

INSPIRATION

We influence and improve computing education in all its forms to improve opportunities for young people, society and the economy

We create a diverse talent pipeline, inspiring significantly more careers in IT and digital roles

PROGRESSION

We provide opportunities for learning and development to support people's career progression and raise standards of competence in our profession

We assess and recognise talent at every level through a diverse range of qualifications, professional registrations, content and skills frameworks

INFLUENCE

We tackle the big issues facing our digital lives, connecting industry, education and government to shape and bring about impactful change on society and our profession

We campaign to raise trust in the IT profession and ensure IT is used effectively and ethically to solve the biggest problems of society

The BCS Community and its Communities of Practice

We're a diverse community of professionals helping each other to thrive in the digital economy:

60,000

Members

155

Countries

300

Organisations

50

Special interest groups

50

Regional branches



9,420 Teachers
Computing at School

11

International sections

20

Student chapters



BCS membership has helped me access a wealth of networking opportunities, across a wide range of IT professionals, and develop valuable professional relationships that have had a positive influence on my career

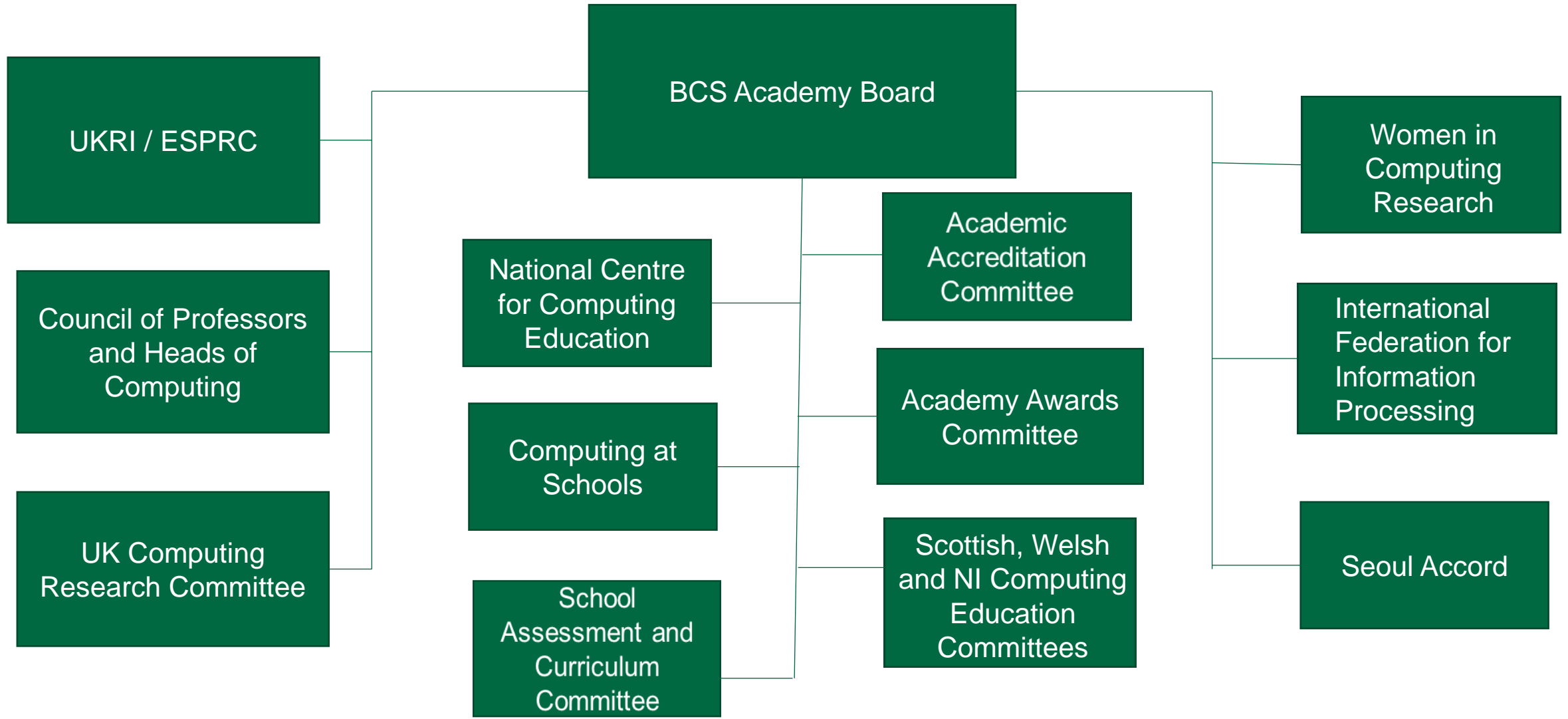
James Hammond MBCS



Academy Board of Computing Membership

- Chair – elected for 3 year term
- From BCS
 - Director of Education
 - Director of Policy
- Representation
 - BCS Council
 - Chair, Academic Accreditation Committee
 - Chair, Women in Research Computing Group
 - Chair, BCS Academy Awards Committee
 - Chair, BCS Certificate Steering Committee
 - CPHC
 - UKCRC
 - EPSRC
 - 3 devolved nations
- Plus – 6 nominated BCS members

BCS Academy Board Links



Academy Board Projects

- In response to feedback gathered
- Review of terms of reference for Academy Board;
- Review of academic accreditation – now in phase 2, phase 1 reported in summer 2021
 - Key BCS product
 - Value for students, HEIs and employers
- Development programme for new computer science academics moving towards programme for all computer science academics – align with development activities arranged by CPHC;
- Mentoring programme for computer science academics;
- Review of EDI challenges in the nomination and award of BCS prizes and committee representation;
- Re-establish relationship with IFIP
 - 60th Anniversary celebrations
 - Engaged with IFIP Board
 - Joint workshops with IFIP TC3 (March and May 2022)
- The establishment of Education groups in the devolved nations (Scotland and NI in operation, Wales to be finalised)
- Collaboration with other BCS directorates, SIGs, branches

National Centre for Computing Education update

- **50,500 teachers** engaged representing 22,000 English schools, with over 6,000 of these situated in priority areas
- **18,000 teachers** have benefited from NCCE continuing professional development (CPD)
- **7,000 teachers** have received training to deliver the computer science GCSE through the Computer Science Accelerator (CSA) course
- **3,100 teachers and 56,000 students** registered on the Isaac Computer Science platform to support A level Computer Science.
- **150** local partnerships developed with Computing Hubs, acting as local champions for Computer Science and delivering face-to-face, in-school and remote support
- Over **28,000** Computing at School (CAS) activities
- **Computing Quality Framework** launched with more than 1,000 schools already engaged
- Teach Computing Curriculum: **500 hours** of resources and **69 units** of work now available with **374,000 lesson downloads** from English teachers in 21/22.

Computing at Schools (CAS) update

- Total member accounts were up to 42,715 (a 37% increase since NCCE) with 9,420 active unique teachers
- 359 Active Communities,
- 462 Active Community Leaders (up 16% since last reported).
- There were 647 Community Meetings with 8,968 attendees in the last year and 65% of attendees at CAS Community of Practice meetings were from state-maintained schools in England (since NCCE launched)
- The refreshed CAS website launched in December '21 with 670 new users joining since launch.

BCS and Academy

- Offer for academics
- Offer for HEIs
- Ensuring accreditation is valuable to everyone
- Platform to get all academics involved
- Enabling computing community to speak with one voice

BCS Membership for Academics

- Being a member of BCS shows your **commitment to professionalism**
- You are helping to **advance the education and practice of computing for the benefit of the public** (BCS' purpose defined by its Royal Charter)
- By engaging with your professional body, your voice can be more effective in **influencing government policy**
- As educators of the next generation of computing professionals you are **role models** who can set an example to students: that commitment to professionalism matters and can support them throughout their career

BCS Membership for Academics

The Computer Journal Policy Jams and Briefings

Needham Award & Lecture

Knowledge and Insight Podcasts

BCSWomen Lovelace Colloquium Turing Lecture

ITNow Interacting with Computers

Reward and Recognition

BMJ Health & Care Informatics

Lovelace Medal & Lecture Distinguished Dissertation Formal Aspects of Computing

Karen Spark Jones Talk Mentoring

Sharing Expertise Speaking opportunities

Academics Specialist Group Fellows Technical Advisory Group

Policy Consultations Discussion Forum

SGs and Branches

Academic Membership for HEIs

Universities pay for membership for their students and selected staff. Supplementing university courses with BCS learning materials helps to create well-rounded professionals ready to enter the profession. It also offers the staff a rich CPD resource base to enhance their own development. .



Benefits:

- Preparing students for the workplace and smoothing their route into industry
- Raising the university's profile

As well as the membership itself, institutions also have access to exclusive sessions on topics including:

- Activating BCS membership
- Employability workshops
- Specialist talks (e.g. tech ethics)
- Early career talks (e.g. bridging the gap from education to work)
- Summer school workshops

Student Membership and Engagement

BCS Student Chapters provide a platform for students across IT disciplines to get together to debate and share information. They also offer students the opportunity to connect with people working in the industry and to start building a professional network.



"The specialist group meetings are a real chance to network with people who are doing the kind of work I hope to be doing myself, in a couple of years."

BCS Student Member

Chapters are run by students, for students and offer them opportunities to:

- Develop IT knowledge and skills through discussion and debates, workshops, hackathons, guest speaker events and more.
- Start building professional networks by connecting with BCS members and tech employers in the local area.
- Increase confidence and boost extra-curricular credentials
- Get to know like-minded students on campus and in universities across the chapter network, for both study and social activity.

UK Academic Partners

SOUTH WEST									
I	N	S	T	I	T	U	T	E	OF
T	E	C	H	N	O	L	O	G	Y



UNIVERSITY OF
PLYMOUTH



Teesside
University



University of
Central Lancashire
UCLan

UNIVERSITY OF
WESTMINSTER



UNIVERSITY OF
BRADFORD
MAKING KNOWLEDGE WORK

UEA University of
East Anglia

- 5,000 students signed up this academic year from 16 universities
- Speaking to 20 other universities ahead of the next academic year



The problem at July 2020

- Shadbolt and previous BCS reviews focused on employability
- Accreditation from little known and poorly understood to a natural part of the conversation
 - Signposting
 - Prepared for a professional life beyond university
 - Return on investment
 - Different meaning of accreditation from different groups
- How will we ensure that computing graduates have the skills needed to drive economic recovery as data science and AI change the industry post COVID-19 ?

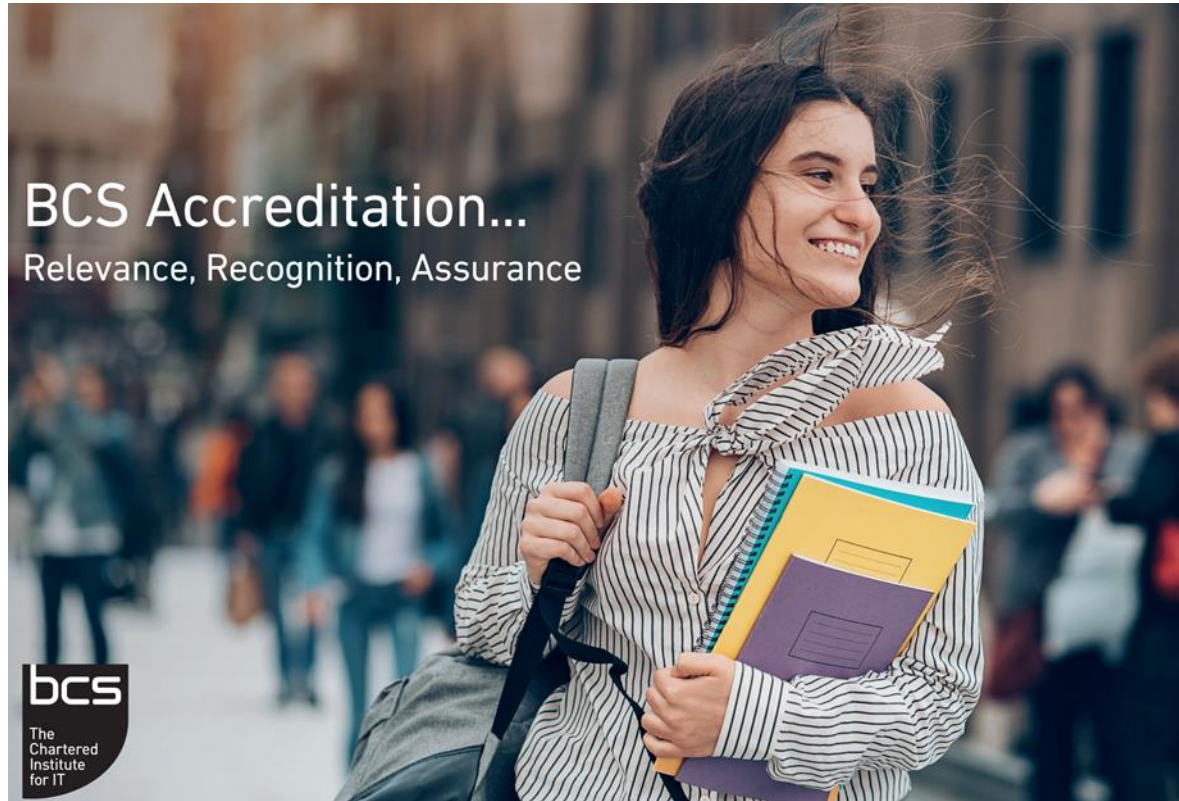
Review of Accreditation – Phase 1

- Project initiated July 2020
- Stakeholder steering board established
- Focus on value to stakeholders
 - Prospective students and their advisors
 - Students
 - HEIs
 - Employers
- Data gathering
 - 4 workstreams
 - Survey – 150 responses
 - Focus groups, UK academy, overseas, employers
 - Individual interviews
- Reported July 2021 – with 3 main recommendations
 - Revise accreditation process using AHEP4 as catalyst
 - Engage all stakeholders, promoting purpose and value
 - Building relationships with academics and students
- BCS Executive response
 - Resources
 - Product not just a process

BCS Degree Accreditation

- Accreditation is important
- Challenge to make it easier to complete but be more robust
- Ensure outcomes are identifiable, measurable and valuable
- Embrace and promote BCS pillars
- To address full range of computing programmes and incorporate CITP and CEng
- To meet expectations of AHEP4
- To align with Seoul Accord, EQANIE
- Accreditation in specific disciplines – Cyber, Data Science, Health
- Influence regulation ?

BCS Degree Accreditation



- Gives **students** confidence their degree will develop the skills needed for a career as a computing professional
- Allows **universities** to demonstrate they are advancing professionalism that benefits students and employers
- Shows **employers** that degree programmes teach and assess the right skills and knowledge needed to enter the computing profession.

108

UK institutions

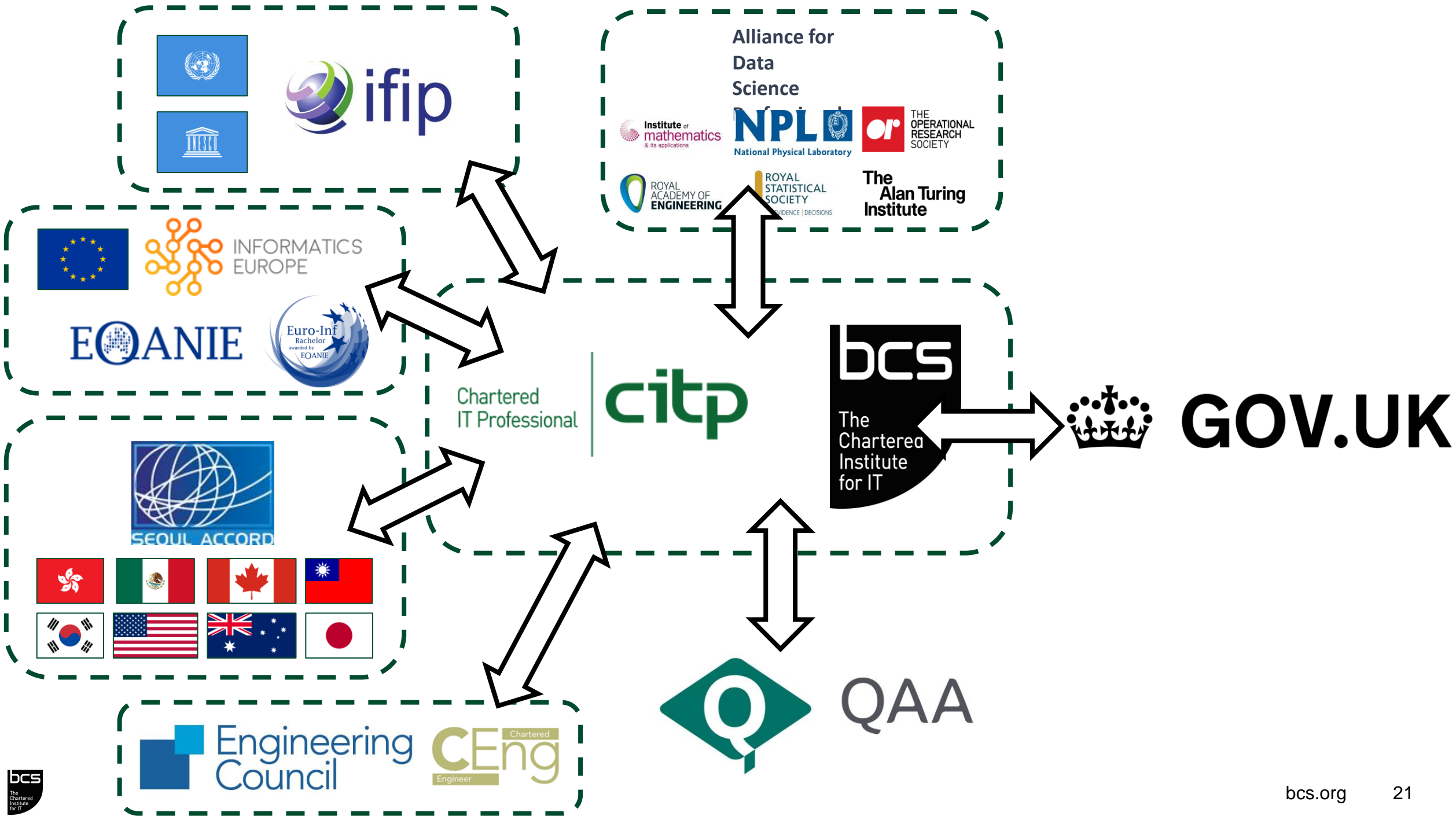
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International

Chartered
IT Professional

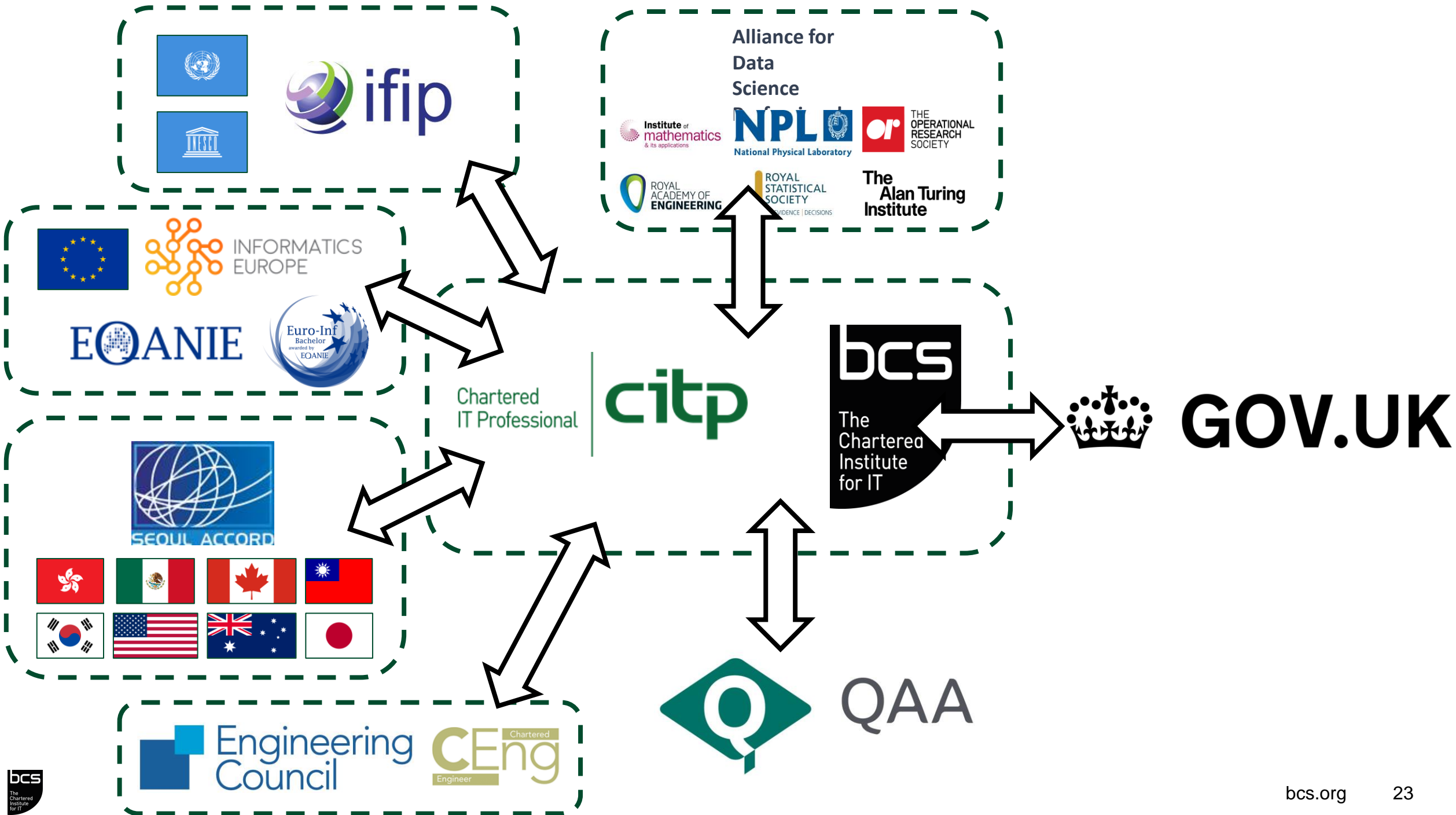
citp

Chartered
CEng
Engineer



Evolving Degree Accreditation

- BCS is engaging universities and employers to develop a new partnership model for accredited technology degrees that reflects industry needs and creates compelling pathways into the profession
- The BCS partnership model will blend accreditation, professional registration pathways, engagement, membership and industry links so that...
 - universities can offer a valuable and differentiated experience to students
 - students are inspired to choose BCS accredited technology courses and progress onwards into employment
 - employers have a pipeline of work-ready candidates with the skills to help shape our digital future.



Summary

- Helpful feedback and set of discussions over the last 18 – 24 months
- We have taken on board and we are working to improve
- Need to improve communication
 - Cross representation on bodies
 - Regular meeting with chairs from Academy Board, CPHC, UKCRC
- Encourage engagement across whole academy
- Opportunity to influence current and new regulations and processes
- Work together to ensure a better outcome for all

THANK YOU