

Consultation Response from the Centre for Process Innovation,
North East England, UK

European Commission 2020 Strategy Consultation Paper

1) Background

The general description of the features of the type of Europe that the EC 2020 strategy should establish, i.e.

“A new sustainable social market economy, a smarter, greener economy, where our prosperity comes from innovation and from using resources better, where the key input will be knowledge.”

aligns directly with the strategy behind the Centre for Process Innovation and we support this broad statement of intent. The Centre for Process Innovation was established to address the difficulties associated with turning ideas into commercial revenue through commercialisation and innovation. It has a particular focus on the process industry sector in the North East of England. This is the largest industrial sector in the North East, and is vital to its future prosperity, making up £10 billion (over 25%) of the region's GDP. The Centre for Process Innovation helps this sector to compete globally on a *knowledge* basis, helping companies in the sector to develop new technology and innovate, as well as supporting new companies in the sector that will provide the future pipeline of growth. The approach of CPI to Innovation has been widely praised and is cited as an example in the Government white paper 'Innovation Nation'.

The Centre for Process Innovation has a major focus on the need to use natural resources and processes more sustainably and efficiently and so supports the statement made within the EU 2020 strategy that 'conserving energy, natural resources and raw materials, using them more efficiently and increasing productivity will be the key drivers of the future competitiveness of European industry and economies'. In addition to the two major technology divisions, 'Susproc' (focused on sustainable processing, low carbon energy and bioprocessing) and 'Petec' (focused on polymer electronics), we have a number of projects that concentrate on providing support to regional high-technology and low carbon energy companies, particularly SMEs. These projects are both supported by European funds and assist regional companies to access European funding through targeted support for participation in framework programmes. Hence, the major activities of the Centre for Process Innovation are aligned to the overall objectives of the EU 2020 strategy.

We are also encouraged by the recognition that the appropriate actions need to be taken to ensure that the necessary skills are available to support this agenda and to underpin the social responsibilities of the European Community.

Our detailed comments on each section of the strategy are given below.

2) Comments on Thematic Priorities

2.1) 'Creating value by basing growth on knowledge'

The strategy states that Europe has some of the best universities in the world and that *'our ambition should be to have many more and turn them into a true engine for knowledge and growth'*.

Universities are indeed a key element in the innovation supply chain as they provide the raw material for innovation, the knowledge that forms the basis of any innovation. However, whilst there are some examples of Universities that have successfully managed the innovation and commercialisation of the knowledge that they generate, we believe that the picture is mixed. There are far more examples of where these processes have not been managed well by Universities. Indeed, the Centre for Process Innovation is one of three regional Centres of Excellence in the North East of England that were set up to address this area and to provide the skills, expertise and industrial know-how that is required to ensure that innovation and subsequent commercialisation are successful. We would therefore urge caution on the Commission with regard to the assumption that Universities can be the engine for growth: they are part of the innovation and commercialisation supply chain, but only part. Organisations such as our own have proven to have far better success at creating wealth from the knowledge produced in Universities and are necessary to provide a vital link between the generators of knowledge and the industries that eventually produce revenue from the innovation associated with that knowledge.

We also ask the Commission to consider the fact that in many emerging industries, for example, the Low Carbon Energy industry, companies have complained not of a lack of graduates, but of a lack of skills shortages in trades and related areas. The restructuring of the traditional industrial base has meant that significant gaps have been left in the skills base as a result of the reduction in well developed company apprenticeships. Better systems are required for developing the skills of people who do not necessarily want to become graduates, but who seek skilled work. This will also answer an industry need. Care needs to be taken in choosing and developing the right institutions for this training and ensuring that they have the appropriate links to the ultimate employers of the new trainees.

The Centre for Process Innovation agrees entirely with the strategy when it states that

'...there need to be more attractive framework conditions for innovation and creativity'.

The strategy talks about incentives for knowledge-based firms. We would urge the Commission to remember that most companies in Europe that want to compete globally are having to do this on a knowledge basis. This includes large companies in well established manufacturing sectors. These companies realise that they cannot compete on a cost basis with China, India etc. and so are finding new models to develop the knowledge upon which their businesses are based. 'Open Innovation' is a successful model that allows European companies to share the risks of innovation and it is a model in which the Centre for Process Innovation has established a successful track record. The collaborative Framework Programmes established by Europe have proved to be effective at contributing to Open Innovation and the Commission should continue to both support these programmes and the institutions that facilitate their take up by Europe's industrial and academic research and technology development base.

We are concerned that this section specifically picks out one area, the digital economy, for special mention. This is undoubtedly an important area, but we believe that the digital economy provides infrastructure for other industries to exploit. It is a means to share information very efficiently, but it is effectively a 'service' industry. Europe still needs to generate Intellectual Capital and to fabricate and sell goods. The paper states that:

'... an ambitious 'European Digital Agenda that takes concrete steps to the completion of an Online Single Market will be a key element in Europe's sustainable economic recovery and social development...'

If that single market is trading goods whose intellectual capital lies outside of the EC then the model is not likely to be sustainable.

The key to recovery is finding the right support to turn ideas into commercial revenue i.e. the innovation agenda that CPI has supported since its inception. And whilst it is important to nurture SMEs and to grow them, we can not ignore the large manufacturing players in Europe. The targeting of growth areas is understandable, but traditional industries and sectors should not be forgotten in this process. These industries are restructuring to face the new challenges of a global economy and they still require support in order to in order to secure the jobs of the large number of people that they employ. Traditional, more established industries should be seen as a way of supporting new growth areas, and there are

opportunities to create new businesses between the traditional and new growth sectors. The 2020 strategy must not forget the important role played by traditional industrial sectors and the large and small companies within them and it should allow for the growth of all industries.

The Centre for Process Innovation agrees with the strategy statement that there is a need for *'administrative simplification and technical support to promote the incubation and growth of small innovative firms'*.

Many of the European funding schemes have excellent aims and provide valuable support to the European economy. However, we believe that the full potential of these schemes is often not realised because of the complexity of their administration. There are examples of companies that could use the support provided by European Regional Development Funding and who could deliver good projects with this support. However, they do not apply for this funding because the administrative burden reduces its overall value. They also find it hard to get definitive answers on issues that could result in funding claw-back. Organisations with well established administrative functions are often best placed to make use of these funds, but these organisations are not always the ones that are best placed to deliver real outcomes. We therefore agree that administrative simplification and technical support would be valuable in this area. There are good examples of the difference that technical support can make: the Centre for Process Innovation runs an Integrated Innovation Support programme with the regional RDA One North East that helps regional companies to access European Framework funding. This has been successful in creating framework consortia that benefit the region.

2.2) Empowering people in inclusive societies

The Centre for Process Innovation agrees that, in future, people may have to be more flexible in their approach to employment and that the employment model is, indeed, likely to consist of a number of entries into and exits from the labour market over a lifetime.

The concept of 'flexicurity' appears to us to be very useful and if implemented appropriately, should help to ensure that the skills requirements for emerging industries are met whilst giving people greater chances to protect themselves against economic uncertainty.

The strategy has recognised the need to forecast skills requirements in e.g. 'green' areas. This is important and thought must be given to how this can be implemented effectively. By their very nature, emerging industries may not be seen by potential recruits as sufficiently developed to offer reasonable employment prospects. Again, the concept of 'flexicurity' could be helpful here.

The Centre for Process Innovation supports moves to remove some of the legislative discrimination against the self employed. These people are part of the innovation and commercialisation value chain and should not be disadvantaged in helping to create economic opportunity for Europe.

We note the comment that:

'life long learning needs to be much more accessible and universities should be more open to non-typical learners'.

We refer you to our comments in section (2.1). Universities provide invaluable support to Europe in the creation of knowledge through research and the production of graduates and trained researchers. However, they are not necessarily the best instruments to provide skills training, particularly with regard to trades. We believe that other institutions are perhaps better placed to serve these needs. It is important that the focus of Universities on fundamental knowledge creation is not unduly diluted by expecting them to provide all types of vocational training.

2.3) Creating a competitive, connected and green economy

The Centre for Process Innovation agrees that:

'more efficient resource use and the applications of greener technology will stimulate growth and create new jobs and services'.

It has been working to this agenda since its inception in 2004. We also agree that there is a need to accelerate the modernization of Europe's existing industrial sectors, although we would like to see the detail behind this broad statement.

The strategy talks about shifting the economy to support resource efficiency through targeted regulation. We agree that this can work (as in the UK with the legislation on condensing gas boilers, for example). We would urge, however, that the Commission guards against subsidising areas that do not make economic sense. There is a need for objective instruments or institutions that can provide the expertise required to determine whether or not such support is viable.

Further to our remarks in section (2.1), we believe that smart, upgraded transport and energy infrastructures are vital for European development. The 'super-grid' mentioned in the strategy quite rightly takes account of the need for decentralised generation and should be able to cope with a wide variety of generation sources, such as wind, solar, anaerobic digesters, fuel cell based generation etc. Better transport infrastructure will both underpin Europe's economic development and assist in the achievement of carbon emission objectives. Ultimately there will need to be 100% broadband coverage in Europe as the strategy mentions, but we believe that the transport and grid proposals should be *as a minimum* given equal weight to the broadband aspiration.

We agree with the strategy document that there is a need for an industrial policy that supports industry and keeps the EU competitive. Whilst we would need to see much of the detail behind this statement, we believe that the Commission should consider strongly the role of Open Innovation in supporting the European industrial base and the value that Centres of Excellence such as the Centre for Process Innovation, the New and Renewable Energy Centre and the Centre for Life Sciences can add to the process. All of these organisations are making significant contributions to the regional industrial base in the North East of England.

3) Final Comments

Finally, the Centre for Process Innovation strongly agrees that:

'The aim for 2020 is to meet our agreed objectives on climate change and energy, strengthen our industrial base, fully unlock the potential of SMEs and respond to the needs of the future by raising productivity and reducing pressure on resources'.

The policies required to deliver this aim will be of great interest to us: we believe that this is an agenda with which the Centre for Process Innovation is already engaged.