

# The seven sustainability competences according to the RESFIA+D Model. Part A: conceptual background

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## **Abstract:**

**Aim:** Analyse Aim: The article describes the origins, structure and validation of a model for professional competences for sustainable development, called RESFIA+D. The model provides an assessment and policy instrument that can easily be applied practically.

Companies, NGO's and other organizations may apply RESFIA+D as a structured tool for human resource development (HRD). Institutions for higher and vocational education can use the instrument for education (re)development, where curricula and didactic approaches are derived from a systematically designed competence profile in which sustainable development is integrated. Finally, individual professionals may use RESFIA+D as a tool for professional development.

**Design / Research methods:** The article defines the concepts of "competence" and "competent professionals", in an easily understandable style. Next, the structure of the RESFIA+D model is described. Scientific details, such as origins and validation, are described elsewhere; references are made to other sources.

The basic set of RESFIA+D competences is combined with a structure of seven competence levels, which allows users to express the assessment results on an ordinal scale. This scale enables users to design plans for systematic improvements, both at a strategic and an operational level.

**Conclusions / findings:** RESFIA+D was applied successfully within companies, universities, and by individual professionals. Details of the applications will be offered in a follow-up article called "The Seven Sustainability Competences according to the RESFIA+D Model. Part B: Practical Experiences" in this same journal. Using a "cover" principle, the model is in accordance with, and complements other models for SD (sustainable development) competences.

**Originality, value of the article:** The article focuses in a unique way on the roles of individual professionals towards sustainability, whereas most or all usual assessment models focus on the roles of either entire organizations, or of individual persons seen as civilians or customers.

*Keywords: competences, sustainable development, RESFIA+D, Human Resource Development (HRD), professionals, organizations, education.*

*JEL: I20, I23, J24, Q01, Q15, Q56*

## **1. Introduction**

Various sources – e.g. books and presentations – distinguish two kinds of roles of individuals: the civilian and the consumer. For a responsible civilian, driving 65 mph on a highway seems like a pretty fair speed, and eating healthy food appears important. However, as a consumer, the same person may wish to drive faster, and not just to buy responsible food in the supermarket but also those nice and shiny, sweet or spicy snacks. It is a constant struggle: the sensible citizen versus the easily tempted consumer.

Actually, both have opportunities to act sustainably. The citizen may vote conscientiously and participate in discussions to support civic organizations. The consumer may carefully use electricity and water or buy fair trade products, sustainable fish, and FSC-certified wood – and never more than needed.

However, there is a third role: the professional. This article addresses those professionals.

It is true that many books and websites dealing with sustainability in the professional world have been introduced. However: nearly without exception, they are about companies and organizations as a whole. Nevertheless, in the end, anything those businesses or institutions do is the work of separate individuals. Those professionals – ranking high or low in the organization, from CEOs and top managers to production employees, administrative staff, nurses or janitors – all matter. About them, the individual professionals, not much has been written yet. That is the reason for this article, which offers a well-structured set of professional competences for sustainable development. The roles of the individual professionals are extremely important because:

- Every decision made by a company, government, or organization is ultimately taken by human beings.
- All actions undertaken by a company, government, or organization are always performed by human beings.

This article is dedicated to all of those people: individuals at work. For those individuals, a set of competences was designed. The set is called “RESFIA+D”, which is an abbreviation. The first six characters, “R E-S-F-I-A”, represent general competences, i.e. those that may be expected from any professional: “Responsibility”, “Emotional intelligence”, etc. The seventh, “D”, is short for “Disciplinary”. That is to say: related to separate professions or disciplines”. The entire model is shown in Figure 1.

**Figure 1. The RESFIA+D Competences Model**

<b>RESFIA+D: The Seven Competences of the Sustainable Professional</b>	
<p><b>Competence R: Responsibility</b>  <i>A sustainably competent professional bears responsibility for his or her own work.</i></p> <p>R1. Create a stakeholder analysis on the basis of the consequence scope and the consequence period</p> <p>R2. Take personal responsibility</p> <p>R3. Be held personally accountable with respect to society (<i>transparency</i>)</p>	<p><b>Competence E: Emotional intelligence</b>  <i>A sustainably competent professional empathizes with the values and emotions of others.</i></p> <p>E1. Recognize and respect his or her own values and those of other people and cultures</p> <p>E2. Distinguish between facts, assumptions and opinions</p> <p>E3. Cooperate on an interdisciplinary and transdisciplinary basis</p>
<p><b>Competence S: System orientation</b>  <i>A sustainably competent professional thinks and acts from a systemic perspective.</i></p> <p>S1. Think from systems – flexibly zoom in and out on issues, i.e. thinking analytically and holistically in turn</p> <p>S2. Recognize flaws in the fabric and sources of vigor in systems; have the ability to use the sources of vigor</p> <p>S3. Think integrally and chain oriented</p>	<p><b>Competence F: Future orientation</b>  <i>A sustainably competent professional works and thinks on the basis of a perspective of the future.</i></p> <p>F1. Think on different time scales – flexibly zoom in and out on short and long term approaches</p> <p>F2. Recognize and utilise non-linear processes</p> <p>F3. Think innovatively, creatively, out of the box</p>
<p><b>Competence I: personal Involvement</b>  <i>A sustainably competent professional has a personal involvement in sustainable development.</i></p> <p>I1. Consistently involve sustainable development in the own work as a professional (sustainable attitude)</p> <p>I2. Passionately work towards dreams and ideals</p> <p>I3. Employ his or her conscience as the ultimate yardstick</p>	<p><b>Competence A: Action skills</b>  <i>A sustainably competent professional is decisive and capable of acting.</i></p> <p>A1. Weigh up the unweighable and make decisions</p> <p>A2. Deal with uncertainties</p> <p>A3. Act when the time is right, and not go against the current: ‘action without action’</p>
<p><b>+ Competence D: Disciplinary Competences</b>  <i>A sustainably competent professional possesses a rich variety of competences for sustainable development that are specific to his or her profession.</i></p> <p>D1, D2, D3, ... :                      To be specified separately for all kinds of sectors, disciplines, professions, etc.</p>	

Source: Authors own elaboration based on Roorda (2017), Roorda and Rachelson (2018)..

## 2. Competent professionals

A competence: What is it, really? Or, to put it another way, what is a competent professional? Quite a few books have been written about these two questions: highly complex theories - now and then based on thorough scientific studies. But it does not have to be that difficult. Actually, it is very simple:

*A competent professional is someone you will ask to do a job for you again.*

This is because he or she recently did it in a way you liked.

### 2.1 The competent plumber

In order to imagine how someone like that would act, this (kind of) definition will be explained in a way that is not too complicated. It is not based on an abstract kind of profession that cannot be grasped easily, but instead based on the example of a professional with a clearly visible task in a familiar environment.

As a starting point, imagine a dramatic situation in your own house. A small catastrophe. An imaginary situation, by the way, hopefully not a real one. What has happened? Your son, three years old, has – just for fun – been hanging on the bathroom sink, which has completely broken off the wall and is now lying on the floor. Your son is all right, but the bathroom less so. The water pipe has shattered into pieces, and now you have a beautiful “fountain” right where you always dreamed of *not* having one. Water is gushing out! It has already flooded the bathroom floor and the landing and is starting to run down the stairs like a waterfall. The hall and living room are about to turn into a sea. What about you – what do you do? You can think of just one thing to do: panic!

“Call the plumber...” you sigh, and so you do. Later, the plumber arrives. So now, what do you expect he – if your plumber is a male - will do, as a competent professional?

The first thing he does is eliminate the immediate cause of the problem, making sure that it does not get any worse. That is to say: He needs to find the main water supply line and turn the shut-off valve handle. And he definitely should not ask you

where this handle is, for you are panicking right now. All of a sudden, you don't know anything anymore. So, the good man has to know, all on his own, where he has the biggest chance of finding the shut-off valve: in this case, downstairs under the doormat by the front door, right? Without hesitation, he lifts the mat, removes the wooden panel, and shuts off the main water line. Well, that is something.

The second thing he does is calm you down so that you can contribute something useful. So, he starts talking to you, telling you things like: "Look, it isn't really so bad. It's clean water after all. We will fix it. Now, if you could get me a couple of buckets and some towels, I will..." et cetera. It is reassuring when he does that. Your mind clears a little, and your sense returns.

Only after this has been done, the plumber will go upstairs, equipped with the necessary tools, where he will start doing the things you would expect primarily from a person like him. So, he will "plumb", or whatever it may accurately be called, and start repairing the water pipe and the sink.

## **2.2 What he actually did**

Someone who acts in such a calm, competent way is definitely a professional. And, he did much more than just the technical stuff you might associate first when you think of his profession. In his first act in this terrible situation, his role was primarily that of a disaster fighter. His action, his achievement, was to shut off the main water line. In doing this, he made use of his architectural insight regarding how houses in your country are usually constructed. At that moment, the tool he used was his architectural insight. In his second achievement, calming you down and giving you some directions, he acted in a very different role, that of an aid worker. The tool he used this time was his knowledge of people.

Only in his third role, he performed as a technician when he started repairing. For this he probably used tools such as pipe wrenches and a soldering torch.

### ***Context, roles, achievements, and tools***

*Context, roles, achievement, and tools* – these together define competences. Here is a brief overview.

<i>Context:</i>	Inundation in a bathroom
<i>Role #1:</i>	Disaster fighter
<i>Achievement:</i>	Find main water line and turn it off
<i>Tool:</i>	Architectural insight
<i>Role #2:</i>	Aid worker
<i>Achievement:</i>	Calm people down, give directions
<i>Tool:</i>	Knowledge of people
<i>Role #3:</i>	Technician
<i>Achievement:</i>	Repair broken sink
<i>Tools:</i>	Pipe wrenches, soldering torch, etc.

In the bathroom catastrophe scenario, the plumber established three different competences, and at the right moment, he shifted fluently from one role to another. This wonderful example – it is *almost* a shame it did not really happen – provides answers for the two questions this section started with.

*A **competence** is the ability to deliver, in a given **context**, in a certain **role**, solid **achievements** by making use of appropriate **tools**.*

*A **competent professional** is someone who is able, in a range of contexts, to shift flexibly between the various roles that are demanded, and who delivers solid achievements in each of them.*

A person who has proved being able to do that – that is someone you will ask to do a job for you again.

### 3. Sustainably competent professionals

When people are asked what they associate with the word “sustainability”, some will immediately mention nature and the environment: climate change, for instance, or aerosols.

Others will quickly add, “But wait, sustainability, isn’t that about people, too?”. And when asked for an explanation, they may mention poverty and hunger in developing countries, refugees, or discrimination and issues concerning a multicultural society.

Indeed, sustainable development is about many, many issues. Sometimes, this makes it hard for people to understand the concept properly. It may seem as if *every* problem we are struggling with – in the world, in Europe, Africa, or Asia, in your country, or even in your own town or village – has to do with sustainability. Many people have the feeling that “sustainability” is some sort of container into which you can throw each and every problem in the entire world. If this is true, then what is the use of such a word? What does it explain? How can you ever know how to live or work in a sustainable way?

The concept of “sustainable development” was used for the first time in 1980, in a publication of three global organizations for nature and the environment (IUCN, UNEP, WWF 1980). In the following years, the Brundtland Commission performed a thorough study on behalf of the United Nations. In 1987, the commission published its final report called “Our Common Future” (WCED 1987). According to the report, sustainable development is:

*“a development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.*

In other words:

On the one hand, sustainable development is about *now*: about the desire to grant every person in the world a decent life. This concerns, for example, combating poverty and hunger. Moreover, it includes quality education and health care for everybody – wherever in the world – a healthy living environment, freedom,

democracy, safety, and human rights. In short, it gives each human the chance to be a full member of society.

On the other hand, sustainable development is also about *later*: about the concerns that we are overexploiting our planet with our present lifestyle. It is about our desire to grant our children, grandchildren, and great-grandchildren a decent future, which is only possible if we drastically change our present way of living.

### 3.1 Solutions that really work

Some people wonder – are those two, *now* and *later*, really connected? What makes sustainable development different from a grab bag of issues, a *container concept*? Actually, all those issues in the “grab bag” are strongly linked to one another; they influence each other in many ways.

An example illustrates this. One of the big issues of our generation is world population growth. This growth takes place at dazzling speed. It took mankind hundreds of thousands of years to grow to one billion people. This point was reached around the year 1800. The second billion took us less than 130 years. In 2011, we completed the seventh billion, an accomplishment we achieved in just 12 years!

What is driving such growth? All right, sex, of course. But that is certainly not the only answer. An important key lies in the fact that population growth occurs almost entirely in poor countries. Why there? Because the people there need children – to provide for them in old age. When you live in poverty, your children are seen as the only ones who will feed you, clothe you, and house you when you are old. Moreover, if child mortality in your country is high, you may certainly hope to have a lot of kids! It is a fixed pattern: *Everywhere where prosperity increases, the birth rate decreases*. In various wealthy countries, the population is actually shrinking slightly.

If you want your great-grandchildren to have a decent future, global population growth must come to a halt; so much is absolutely certain. If not, our planet will not survive. Managing population growth depends upon solid economic growth in developing countries. So even if you don't experience the wish that poor people become prosperous out of a feeling of solidarity or compassion, you still would be



wise to wish them prosperity from a rational perspective. It is quintessential for your own future and that of your children and their offspring.

On the other hand, such strong economic growth may, of course, increase the global *ecological footprint* considerably, as the present Republic of China illustrates, for example, unless we find clever ways to avoid this. Partly, this can be done with the help of new science and technology. The rest will have to be accomplished through changes in our behavior as consumers.

This example shows that poverty, economy, ecology, science, technology, and human behavior interact strongly with each other. For that reason, sustainability is not simply a container or grab bag with all problems thrown separately into it. On the contrary, sustainability is the only way to understand the ways in which all those problems and issues are linked and to find solutions that really work.

### 3.2 The Triple P

The way in which the Brundtland Commission describes sustainable development has been generally accepted. However, in real life it is hard to apply practically. “*Meet the needs of the present generation*”. Right, but how? And by the way: *which* needs? Should everybody possess a second car and get a new smartphone every six months? “*Future generations*” – wonderful, but how many generations? A thousand?

Many models have been designed to explain sustainability more concretely. One of the best known was created by Ismail Serageldin in 1996: the “Triple P”, i.e. the three P’s: “people”, “planet”, and “profit”. Together they are called the “pillars of sustainability”. They can be summarized as follows (Roorda 2017):

***Social sustainability*** (“people”) at an individual level is about respect for human rights, freedom and safety, cultural values, education and health, personal development, diversity, empowerment and participation. At a societal level, it concerns peace, democracy, solidarity, and social cohesion.

***Ecological sustainability*** (“planet”) relates to conservation and resilience of the natural environment. This implies that ecosystems and biodiversity are protected

and that the ability of the natural environment to provide us with resources and regenerate our waste is not harmed.

*Economic sustainability* (“profit”) is present if development toward social and ecological sustainability can take place in a sufficiently stable economic environment and is financially feasible, and if individuals, families, and communities are guaranteed to be free of poverty. (Sometimes, instead of “profit”, the broader concept of “prosperity” is used.)

Sustainable development means that all aspects and themes above are seen as mutually dependent and interrelated, in that the various interests, problems, and solutions are constantly and harmoniously weighed against and connected with each other. This principle is often referred to as: “The three P’s must be in balance”.

### **3.3 The necessity of sustainably competent professionals**

The Brundtland report and the Triple P don’t guarantee that sustainable development is now crystal clear to everybody or that it is easy to decide in all cases which decisions or actions are sustainable and which are not. Choices concerning sustainable development are usually far from simple. If the use of oil and gas contributes to the greenhouse effect and hence to climate disruption, would it be wise to use nuclear power for a couple of generations, or would that be even more unsustainable? Should we make cars more sustainable, or would that be highly unsustainable in the long term because we might have to get rid of all or most cars? Should we ban child labor in Asia and Africa as fast as we can, even if this means that the parents who depend on their children’s income would starve?

No easy answers exist. The dilemmas are complicated, and so are the solutions. At the same time, there are lots of opportunities – opportunities to make the world more beautiful and just than it is at present. Wouldn’t it be great if there were no more hunger anywhere? If war could disappear altogether? If all people could live freely and securely? If nature were resilient? These and many more goals have been formulated in a concrete and assessable way in the seventeen *Sustainable Development Goals* (SDGs), also known as *Agenda 2030* (UN DESA 2015).